



NOV 29 2011

Michael Matelski
Teasdale Quality Foods, Inc.
P.O. Box 814
Atwater, CA 95301

Re: Notice of Preliminary Decision - Authority to Construct
Project Number: N-111419

Dear Mr. Matelski:

Enclosed for your review and comment is the District's analysis of Teasdale Quality Foods' application for an Authority to Construct for the installation of a new 81.8 MMBtu/hr boiler and the modification to two dormant boilers to add annual heat input limits, at 901 Packers Street in Atwater.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Robert Gilles of Permit Services at (209) 557-6455.

Sincerely,

David Warner
Director of Permit Services

DW:rpg

Enclosures

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

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1990 E. Gettysburg Avenue
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NOV 29 2011

Mike Tollstrup, Chief
Project Assessment Branch
Stationary Source Division
California Air Resources Board
PO Box 2815
Sacramento, CA 95812-2815

Re: Notice of Preliminary Decision - Authority to Construct
Project Number: N-111419

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of Teasdale Quality Foods' application for an Authority to Construct for the installation of a new 81.8 MMBtu/hr boiler and the modification to two dormant boilers to add annual heat input limits, at 901 Packers Street in Atwater.

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**NOTICE OF PRELIMINARY DECISION
FOR THE PROPOSED ISSUANCE OF
AN AUTHORITY TO CONSTRUCT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Authority to Construct to Teasdale Quality Foods, Inc. for the installation of a new 81.8 MMBtu/hr boiler and the modification to two dormant boilers to add annual heat input limits, at 901 Packers Street in Atwater.

The analysis of the regulatory basis for this proposed action, Project #N-1111419, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 4800 ENTERPRISE WAY MODESTO, CA 95356.**

San Joaquin Valley Air Pollution Control District
Authority to Construct
Application Review
Installation of a New Natural Gas-Fired Boiler

Facility Name: Teasdale Quality Foods Inc. Date: October 25, 2011
Mailing Address: P.O. Box 814 Engineer: Robert Gilles
Atwater, CA 95301 Lead Engineer: Nick Peirce
Contact Person: Michael Matelski
Telephone: (209) 358-5616
Application #: N-1174-1-3, '-3-3, '-9-0
Project #: N-1111419
Deemed Complete: August 2, 2011

I. Proposal

Teasdale Quality Foods, Inc. submitted an Authority to Construct (ATC) application to install a new 81.8 MMBtu/hr natural gas-fired boiler with a Selective Catalytic Reduction (SCR) system and a stack economizer (N-1174-9-0). The facility proposes to follow Alternate Monitoring Scheme "A" (periodic monitoring of NO_x, CO and O₂ concentrations by a portable analyzer), as specified in District Policy SSP-1105. Additionally, the applicant requests a higher NO_x emission concentration during a startup/shutdown period.

The applicant has also proposed to modify 2 existing Dormant Emissions Units (DEUs) (N-1174-1 and N-1174-3) by placing an annual heat input limit on the permits so that the Post-Project Stationary Source Potential to Emit (SSPE2) will be below the Federal Major Source threshold of 20,000 pounds per year for NO_x emissions.

The applicant has requested that units N-1174-1 and '-3 retain the Dormant Emissions Unit (DEU) status and that the units continue to be permitted to operate on fuel oil #2 as an alternate fuel. The following condition will be included on the ATC for N-1174-9-0.

- *Authorities to Construct N-1174-1-3, and '-3-3 shall be implemented prior to or concurrently with this Authority to Construct. [District Rule 2201] N*

During the review of this project, the applicant, Sun Garden-Gangi Canning Co., filed for a Transfer of Ownership with the District. Sun Garden-Gangi Canning Co. is now known as Teasdale Quality Foods, Inc. The Transfer of Ownership was completed on October 19, 2011. The facility will be referenced as Teasdale in this evaluation.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Rule 4001 New Source Performance Standards (4/14/99)

- 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 4304 Equipment Tuning Procedure for Boilers, Steam Generators and Process Heaters (10/19/95)
- Rule 4305 Boilers, Steam Generators and Process Heaters – Phase 2 (8/21/03)
- Rule 4306 Boilers, Steam Generators and Process Heaters – Phase 3 (3/17/05)
- Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr (10/16/08)
- Rule 4351 Boilers, Steam Generators and Process Heaters – Phase I (8/21/03)
- Rule 4801 Sulfur Compounds (12/17/92)
- CH&SC 41700 Risk Management Review
- CH&SC 42301.6 School Notice
- Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
- California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

This equipment is located at 901 Packers Street in Atwater, CA. The District has verified that this equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the noticing requirements of California Health and Safety Code Section 42301.6 do not apply to this operation.

IV. Process Description

This facility's primary business is food processing and packaging/canning of tomatoes. The facility's boilers generate process steam which is used in various operations at the facility. The proposed new boiler will be fired exclusively on PUC-quality natural gas. Units N-1174-1 and N-1174-3 are currently permitted as Dormant Emissions Units (DEUs) which can be fired on either natural gas or fuel oil #2.

The facility's maximum operating schedule is 24 hours/day and 365 days/year and the applicant stated that the new boiler (N-1174-9-0) will be started and shutdown every day.

V. Equipment Listing

Pre-Project Equipment Description:

N-1174-1-1:

25 MMBTU/HR WEBSTER IRON FIREMAN BOILER (S/N 11019) - DORMANT EMISSION UNIT (DEU)

N-1174-3-1:

25 MMBTU/HR WEBSTER IRON FIREMAN BOILER (S/N 11018) - DORMANT EMISSION UNIT (DEU)

Post-Project Equipment Description:

N-1174-1-3:

25 MMBTU/HR WEBSTER IRON FIREMAN BOILER (S/N 11019) - DORMANT EMISSION UNIT (DEU)

N-1174-3-3:

25 MMBTU/HR WEBSTER IRON FIREMAN BOILER (S/N 11018) - DORMANT EMISSION UNIT (DEU)

N-1174-9-0:

81.8 MMBTU/HR CLEAVER BROOKS NEBRASKA D TYPE MODEL # NB-300D-55 NATURAL GAS-FIRED BOILER WITH LOW-NO_x BURNER, SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM, AND AN ECONOMIZER

VI. Emission Control Technology Evaluation

The new boiler unit will be equipped with an ultra low NO_x burner capable of achieving a NO_x emission concentration of 5 ppmv @ 3% O₂ and a CO emission concentration of 100 ppmv @ 3% O₂. The burner will be fired exclusively on PUC-quality natural gas.

Low-NO_x burners reduce 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 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 (NO_x) to nitrogen. Ammonia is injected into the exhaust system up stream of a catalyst and creates a reducing atmosphere. The exhaust stream then passes through a catalyst, which promotes the reduction reaction. The reduction reaction results in NO_x being converted to nitrogen. SCR systems provide approximately 95% NO_x control.

VII. General Calculations

A. Assumptions

1. Annual heat input limit for N-1174-1 and N-1174-3 will be 43,800 MMBtu/year (per applicant);
2. Unit N-1174-9-0 will be fired exclusively on CA PUC-quality natural gas (per applicant);
3. The higher heating value of natural gas is 1,000 Btu/scf (District practice);

4. EPA F-factor O₂ based for natural gas = 8,578 dscf/MMBtu (corrected to 60 °F);
5. The higher heating value of fuel oil #2 is 140 MMBtu/10³ gallons (AP 42 Section 1.3);
6. EPA F-factor for fuel oil #2 = 9,051 dscf/MMBtu (corrected to 60 °F);
7. Molar Specific Volume of a gas @ 60 °F is 379.5 ft³/lb-mol;
8. Unit N-1174-9-0 will be started and shut-down every day (per applicant);
9. Start-up period will be 2 hours with NOx emissions concentration of 80 ppmv (per applicant);
10. Units N-1174-1 and N-1174-3 may be fired on either natural gas or fuel oil #2 (current PTO).

B. Emission Factors (EF)

Pre-Project Emission Factors (EF1)

N-1174-1-1 and N-1174-3-1

The pre-project emissions factors are listed in the tables below for both units and each fuel type.

Natural Gas EF1 (N-1174-1-1 and '-3-1)			
Pollutant	Emission Concentration (ppmv @ 3% O ₂)	Emission Factor (lb/MMBtu)	Source
NOx	30	---	Current PTO
SOx	---	0.00285	APR-1720
PM ₁₀	---	0.0076	AP-42 (7/00) Table 1.4-2
CO	400	---	Current PTO
VOC	---	0.0055	AP-42 (7/00) Table 1.4-2

Fuel Oil N ^o 2 EF1 (N-1174-1-1 and '-3-1)			
Pollutant	Emission Concentration (ppmv @ 3% O ₂)	Emission Factor (lb/MMBtu)	Source
NOx	30	---	Current PTO
SOx	---	0.0015 ¹	AP-42 (7/00) Table 1.3-1
PM ₁₀	---	0.0236 ²	AP-42 (7/00) Tables 1.3-1 & '-2
CO	400	---	Current PTO
VOC	---	0.0014	AP-42 (7/00) Table 1.3-3

¹ (EF)_{SOx} is calculated using the equation from AP 42 Table 1.3-1 for boilers less than 100 MMBtu/hr. EF=142S lb-SO₂/10³ gallons where S is the fuel sulfur content in %. Using S = 0.0015% and the heating value of fuel oil #2, EF_{SOx} = (142 lb-SO₂/10³ gal) x (0.0015) x (10³ gal/140 MMBtu) = 0.0015 lb-SO_x/MMBtu.

² (EF)_{PM10} is calculated as the sum of the Filterable PM and the Condensable PM from AP.42 Tables 1.3-1 and 1.3-2 and assuming all PM is PM₁₀. Thus, total PM₁₀ = [(2 lb-PM/10³ gal) + (1.3 lb-PM/10³ gal)] x (10³ gal/140 MMBtu) x (1 lb-PM₁₀/1 lb-PM) = 0.0236 lb-PM₁₀/MMBtu

N-1174-9-0

Since this is a new unit, then EF1 = 0 for all pollutants.

Post-Project Emission Factors (EF2)

N-1174-1-3 and N-1174-3-3

The post-project emissions factors for will remain the same as the pre-project emission factors for these units. EF2 values are summarized in the table below.

EF2 (N-1174-1-3 and N-1174-3-3)		
Pollutant	Natural Gas	Fuel Oil No. 2
NO _x	30 ppmvd at 3% O ₂	30 ppmvd at 3% O ₂
SO _x	0.00285 lb-SO _x /MMBtu	0.0015 lb-SO _x /MMBtu
PM ₁₀	0.0076 lb-PM ₁₀ /MMBtu	0.0236 lb-PM ₁₀ /MMBtu
CO	400 ppmvd at 3% O ₂	400 ppmvd at 3% O ₂
VOC	0.0055 lb-VOC/MMBtu	0.0014 lb-VOC/MMBtu

N-1174-9-0

EF2 (N-1174-9-0)			
Pollutant	Startup (2hrs/day)	Steady State	Source
NO _x	80 ppmvd (at 3% O ₂)	5 ppmvd (at 3% O ₂)	Applicant Proposed
SO _x	0.00285 lb-SO _x /MMBtu	0.00285 lb-SO _x /MMBtu	APR-1720
PM ₁₀	0.0024 lb-PM ₁₀ /MMBtu	0.0024 lb-PM ₁₀ /MMBtu	Health Risk Assessment (HRA)
CO	100 ppmvd (at 3% O ₂)	100 ppmvd (at 3% O ₂)	Applicant Proposed
VOC	10 ppmvd (at 3% O ₂)	10 ppmvd (at 3% O ₂)	Applicant Proposed
NH ₃	10 ppmvd (@ 3% O ₂)	10 ppmvd (@ 3% O ₂)	Similar District Permits ³

³ Various District permits for similar natural gas-fired boilers with a SCR system were reviewed and it was found that a majority of the units are limited to an ammonia (NH₃) emissions concentration of 10 ppmvd @ 3% O₂; therefore, this unit will also be limited to 10 ppmvd NH₃ @ 3% O₂.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

The PE1 values were calculated based on a maximum operating schedule of 24 hours per day and 8,760 hours per year. The following equations and assumptions were used to calculate PE1 for each permit unit.

Molecular Weight of NO_x (as NO₂): 46 lb/lb-mole
 Molecular Weight of CO: 28 lb/lb-mole
 Molecular Weight of VOC (as CH₄): 16 lb/lb-mole
 Molecular Weight of Ammonia (NH₃): 17 lb/lb-mole

Natural Gas: $EF1_{\text{Natural Gas}} \text{ (lb/MMBtu)} \times [24 \text{ (hrs/day)}, 8,760 \text{ (hrs/yr)}] \times \text{Boiler Rating (MMBtu/hr)}$

Fuel Oil No. 2: $EF1_{\text{Fuel Oil No.2}} \text{ (lb/MMBtu)} \times [24 \text{ (hrs/day)}, 8,760 \text{ (hrs/yr)}] \times \text{Boiler Rating (MMBtu/hr)}$

$$EF \text{ (lb/MMBtu)} = \frac{\left(ppmvd \right) \times \left(F - factor \frac{dscf}{MMBtu} \right) \times \left(MW \frac{lb}{lb - mol} \right) \times \left(\frac{20.95}{20.95 - 3} \right)}{\left(379.5 \frac{dscf}{lb - mol} \right) \times (10^6)}$$

N-1174-1-1 and N-1174-3-1

PE1 (N-1174-1-1 and N-1174-3-1)						
Pollutant	Natural Gas			Fuel Oil No. 2		
	EF1 (lb/MMBtu)	Daily (lb/day)	Annual (lb/yr)	EF1 (lb/MMBtu)	Daily (lb/day)	Annual (lb/yr)
NO _x	0.036	21.6	7,884	0.038	22.8	8,322
SO _x	0.00285	1.7	624	0.0015	0.9	329
PM ₁₀	0.0076	4.6	1,664	0.0236	14.2	5,168
CO	0.3	180.0	65,700	0.31	186.0	67,890
VOC	0.0055	3.3	1,205	0.0014	0.8	307

The following table summarizes the highest PE values for each pollutant and references the fuel source.

PE1 (N-1174-1-3 and N-1174-3-3)			
Pollutant	Daily (lb/day)	Annual (lb/yr)	Fuel Type
NO _x	22.8	8,322	Fuel Oil No. 2
SO _x	1.7	624	Natural Gas
PM ₁₀	14.2	5,168	Fuel Oil No. 2
CO	186.0	67,890	Fuel Oil No. 2
VOC	3.3	1,205	Natural Gas

N-1174-9-0

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

2. Post Project Potential to Emit (PE2)

The following equations were used to calculate the PE2 values for each permit unit. For Permits N-1174-1 and -3, the highest calculated PE value from the combustion of either natural gas or fuel oil #2 will be reported as the maximum PE for each pollutant.

N-1174-1-3 and N-1174-3-3

Heat Input: 25 MMBtu/hr, 43,800 MMBtu/yr
 Daily PE2: EF (lb/MMBtu) x (25 MMBtu/hr) x (24 hrs/day)
 Annual PE2: EF (lb/MMBtu) x (43,800 MMBtu/yr)

PE2 (N-1174-1-3 and N-1174-3-3)						
Pollutant	Natural Gas			Fuel Oil No. 2		
	EF1 (lb/MMBtu)	Daily (lb/day)	Annual (lb/yr)	EF1 (lb/MMBtu)	Daily (lb/day)	Annual (lb/yr)
NO _x	0.036	21.6	1,577	0.038	22.8	1,664
SO _x	0.00285	1.7	125	0.0015	0.9	66
PM ₁₀	0.0076	4.6	333	0.0236	14.2	1,034
CO	0.3	180.0	13,140	0.31	186.0	13,578
VOC	0.0055	3.3	241	0.0014	0.8	61

The following table summarizes the highest PE values for each pollutant and references the fuel source.

PE2 (N-1174-1-3 and N-1174-3-3)			
Pollutant	Daily (lb/day)	Annual (lb/yr)	Fuel Type
NO _x	22.8	1,664	Fuel Oil No. 2
SO _x	1.7	125	Natural Gas
PM ₁₀	14.2	1,034	Fuel Oil No. 2
CO	186.0	13,578	Fuel Oil No. 2
VOC	3.3	241	Natural Gas

N-1174-9-0

Heat input: 81.8 MMBtu/hr, 24 hrs/day, 8,760 hrs/yr
Fuel: Natural Gas only

Startup/Shutdown Emissions:

Operating Schedule: 2 hrs/day, 730 hrs/yr
Daily PE2: EF (lb/MMBtu) x (81.8 MMBtu/hr) x (2 hrs/day)
Annual PE2: EF (lb/MMBtu) x (81.8 MMBtu/hr) x (730 hrs/yr)

Steady State Emissions:

Operating Schedule: 22 hrs/day, 8,030 hrs/yr
Daily PE2: EF (lb/MMBtu) x (81.8 MMBtu/hr) x (22 hrs/day)
Annual PE2: EF (lb/MMBtu) x (81.8 MMBtu/hr) x (8,030 hrs/yr)

PE2 (N-1174-9-0)						
Pollutant	Startup/Shutdown			Steady State		
	EF2 (lb/MMBtu)	Daily (lb/day)	Annual (lb/yr)	EF2 (lb/MMBtu)	Daily (lb/day)	Annual (lb/yr)
NO _x	0.097	15.9	5,792	0.0062	11.2	4,073
SO _x	0.00285	0.5	170	0.00285	5.1	1,872
PM ₁₀	0.0024	0.4	143	0.0024	4.3	1,576
CO	0.0739	12.1	4,413	0.0739	133.0	48,542
VOC	0.0042	0.7	251	0.0042	7.6	2,759
NH ₃	0.0045	0.7	269	0.0045	8.1	2,956

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

PE2 (N-1174-9-0)		
Pollutant	Daily (lb/day)	Annual (lb/yr)
NOx	27.1	9,865
SOx	5.6	2,042
PM ₁₀	4.7	1,719
CO	145.1	52,955
VOC	8.3	3,010
NH ₃	8.8	3,225

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

Pursuant to Section 4.9 of District Rule 2201, the pre-project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid ATCs or PTOs at the Stationary Source and the quantity of Emission Reduction Credits (ERCs) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Since this is an existing facility, SSPE1 is equal to the sum of the pre-project emissions from all units at the facility. The SSPE1 values shown in the table below were gathered from the most recent engineering evaluation performed for this facility prior to this project. The SSPE2 values from Project # N-1074587 are used here as SSPE1 values for this project.

SSPE1 (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
N-1174-1-1 (DEU)	8,322	624	5,168	67,890	1,205
N-1174-2-5	1,080	86	228	3,300	165
N-1174-3-1 (DEU)	8,322	624	5,168	67,890	1,205
N-1174-4-5	4,468	1,498	3,995	19,447	2,891
ERC	0	0	0	0	0
SSPE1 Total	22,192	2,832	14,559	158,527	5,466
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	Yes	No	No	No	No

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

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

SSPE2 (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
N-1174-1-3 (DEU)	1,664	125	1,034	13,578	241
N-1174-2-5	1,080	86	228	3,300	165
N-1174-3-3 (DEU)	1,664	125	1,034	13,578	241
N-1174-4-5	4,468	1,498	3,995	19,447	2,891
N-1174-9-0	9,865	2,042	1,719	52,955	3,010
ERC	0	0	0	0	0
SSPE2 Total	18,741	3,876	8,010	102,858	6,548
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	No

5. Major Source Determination

Pursuant to Section 3.24 of District Rule 2201, a Major Source is a stationary source with post-project emissions or a post-project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the following threshold values. However, Section 3.24.2 states, "for the purposes of determining major source status, the SSPE2 shall not include the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site."

As shown in Section VII.C.4 above, the post-project facility is a non-Major Source for all criteria pollutants.

6. Baseline Emissions (BE)

BE = Pre-project Potential to Emit for:

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

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

BE = Historic Actual Emissions (HAE), calculated pursuant to Section 3.23

As previously discussed in Section VII.C.5, the post-project facility is a non-Major Source for all criteria pollutants; therefore, Baseline Emissions (BE) are equal to the Pre-Project Potential to Emit (PE1).

7. SB288 Major Modification

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

As previously discussed in Section VII.C.5, the post-project facility is a non-Major Source for all criteria pollutants. Therefore, this project does not constitute a SB288 Major Modification.

8. Federal Major Modification

As previously discussed in Section VII.C.5, the post-project facility is a non-major source for all criteria pollutants. Therefore, this project does not constitute a Federal Major Modification.

9. 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 E.

VIII. **Compliance**

Rule 2201 - New and Modified Stationary Source Review Rule

A. *Best Available Control Technology (BACT)*

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis for the following²:

- a. Any new emissions unit with a potential to emit exceeding two pounds per 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.

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

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

Teasdale has proposed to install a new 81.8 MMBtu/hr boiler (N-1174-9-0). As previously calculated in Section VII.C.2, PE2 > 2.0 lb/day for NOx, SOx, PM₁₀, CO, and VOC. However, since SSPE2 < 200,000 lb-CO/year, BACT is not triggered for CO emissions. Therefore, BACT is triggered only for NOx, SOx, PM₁₀, and VOC for PE2 > 2.0 lb/day for unit N-1174-9.

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

There are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered for this purpose.

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

Teasdale has proposed to modify two existing boilers by limiting the maximum annual heat input to each unit. Pursuant to Section 3.25.1.1 of District Rule 2201, this qualifies as a modification. However, the proposed modification will not result in changes to the emissions factors or daily heat input rate; therefore, AIPE = 0 lb/day for all pollutants. Since AIPE = 0 lb/day for all pollutants, BACT will not be triggered for AIPE > 2.0 lb/day.

d. Major Modification

As discussed in Section VII.C.5 above, this project constitutes neither a SB288 Major Modification nor a Federal Major Modification; therefore BACT is not triggered for major modification purposes.

2. BACT Guideline

Per District Policy APR 1305, Section IX, '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.' For source categories or classes covered in the BACT Clearinghouse, relevant information under each of the steps may be simply cited from the Clearinghouse without further analysis.

The District's **BACT Clearinghouse Guideline for this class of boiler** has been rescinded since District Rule 4320 has more stringent NOx limits than those listed in the guideline. Therefore, a project specific BACT analysis will be performed.

3. Top-Down BACT Analysis

NO_x Emissions:

The applicant is proposing to utilize a boiler with a maximum NO_x emission rate of 5 ppmvd @ 3% O₂, which meets the current technologically feasible BACT control method for NO_x emissions.

As shown in Appendix B of this document, the applicant is utilizing the most stringent control technique that has not been eliminated in the Top-Down BACT analysis. Therefore, BACT for NO_x is being proposed.

SO_x, PM₁₀, and VOC Emissions:

The applicant is proposing to fire the new boiler solely on natural gas, which is the current achieved-in-practice BACT control method for SO_x, PM₁₀, and VOC emissions.

As shown in Appendix B of this document, the applicant is utilizing the most stringent control technique that has not been eliminated in the Top-Down BACT analysis. There are no other technologically feasible control options for SO_x, PM₁₀, or VOC emissions. Therefore, BACT for SO_x, PM₁₀, and VOC is being proposed.

B. Offsets

1. Offset Applicability

Pursuant to 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, as approved by the APCO, shall be exempt from offset requirements for all air pollutants provided all of the following conditions are met:

Pursuant to Section 4.5.3, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post-Project Stationary Source Potential to Emit (SSPE2) equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The following table compares the post-project facility-wide annual emissions in order to determine if offsets will be required for this project.

Offset Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE2	18,741	3,876	8,010	102,858	6,548
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Offsets Triggered?	No	No	No	No	No

2. Quantity of Offsets Required

As seen above, the offset threshold levels have not been exceeded for any criteria pollutant; therefore, offsets will not be required for this project.

C. Public Notification

1. Applicability

Public noticing is required for:

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

a) New Major Source

As discussed in section VII.C.5, the facility is not a new source and is not becoming a Major Source as a result of this project; therefore public noticing for New Major Source purposes is not required.

b) Major Modification

As demonstrated in sections VII.C.7 and VII.C.8, this project constitutes neither a SB288 Major Modification nor a Federal Major Modification; therefore, public noticing for Major Modification purposes is not required.

c.) PE > 100 lb/day

As calculated in Section VII.C.2 for unit N-1174-9, daily emissions for all pollutants are less than 100 lb/day, except for CO emissions which are 145.1 lb/day. Public noticing requirements are triggered because PE > 100 lb/day for CO for this new emissions unit.

d) Offset Threshold

The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Threshold (lb/year)				
Pollutant	SSPE1	SSPE2	Offset Threshold	Public Notice Required?
NO _x	22,192	18,741	20,000	No
SO _x	2,832	3,876	54,750	No
PM ₁₀	14,559	8,010	29,200	No
CO	158,527	102,858	200,000	No
VOC	5,466	6,548	20,000	No

As detailed above, SSPE1 exceeded the offset threshold for NO_x, however, the post-project facility does not exceed the offset threshold for any pollutant; therefore public noticing is not required for offset threshold purposes.

e) SSIFE > 20,000 lb/year

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIFE) of more than 20,000 lb/year of any affected pollutant.

According to District policy, SSIFE is calculated as the post-project Stationary Source Potential to Emit (SSPE2) minus the pre-project Stationary Source Potential to Emit (SSPE1), i.e. SSIFE = SSPE2 – SSPE1. The values for SSPE1 and SSPE2 were calculated according to Rule 2201, Sections 4.9 and 4.10, respectively. The SSIFE is compared to the SSIFE Public Notice thresholds in the following table:

SSIFE (lb/year) – Public Notice					
Pollutant	SSPE2	SSPE1	SSIFE	SSIFE Public Notice Threshold	Public Notice Required?
NO _x	18,741	22,192	-3,451	20,000	No
SO _x	3,876	2,832	1,044	20,000	No
PM ₁₀	8,010	14,559	-6,549	20,000	No
CO	102,858	158,527	-55,669	20,000	No
VOC	6,548	5,466	1,082	20,000	No
NH ₃	3,225	0	3,225	20,000	No

As shown above, the SSIFE value for each criteria pollutant was less than 20,000 lb/year; therefore public noticing for SSIFE purposes is not required.

2. Public Notice Action

As discussed above, this project will result in CO emissions greater than 100 lb/day for the new boiler (unit N-1174-9); therefore, public notice requirements are triggered. Public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

The DELs for permit unit N-1174-9-0 when fired on natural gas fuel will be stated in the form of emission factors as shown below:

- *Except during start-up and shutdown, NOx emissions from the combustion of natural gas shall not exceed 5 ppmvd @ 3% O₂. [District Rules 2201, 4305, 4306, and 4320] N*
- *CO emissions from the combustion of natural gas shall not exceed 100 ppmvd @ 3% O₂. [District Rules 2201, 4305, 4306, and 4320] N*
- *VOC emissions from the combustion of natural gas shall not exceed 10 ppmvd @ 3% O₂. [District Rules 2201, 4305, 4306, and 4320] N*
- *PM10 emissions from the combustion of natural gas shall not exceed 0.0024 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320] N*
- *SOx emissions from the combustion of natural gas shall not exceed 0.00285 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320] N*
- *The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 3% O₂. [District Rule 2201] N*
- *During start-up and shutdown, NOx emissions from the unit shall not exceed 80 ppmvd NOx @ 3% O₂. [District Rules 2201, 4305, 4306 and 4320] N*
- *Startup or shutdown shall not exceed 2 hours per day. Cumulative duration of startups and shutdowns shall not exceed 730 hours per year. [District Rule 2201] N*

The following conditions will be retained for permits N-1174-1-3 and N-1174-3-3:

- *The NOx emissions from this unit shall not exceed 30 ppmvd @ 3% O₂. [District Rule 4305] N*
- *The CO emissions from this unit shall not exceed 400 ppmv @ 3% O₂. [District Rule 4305] N*

The following condition will be added to each permit N-1174-1-3 and N-1174-3-3:

- *Maximum annual heat input to the unit shall not exceed 43,800 MMBtu per calendar year. [District Rules 2201, 4305, 4306, and 4320] N*

E. Compliance Assurance

1. Source Testing

Source testing is required by District Rule 4320 (Advanced Emission Reduction Options for Boilers, Steam Generators and Process Heaters Greater than 5.0 MMBtu/hr). Refer to Section VIII of this document under Rule 4320 for a discussion of the source testing requirements.

Since this boiler has not demonstrated compliance with the 5 ppmv limit, an initial source test is required within 60 days of the initial startup.

The following condition will be included on the ATC for N-1174-9-0 to ensure compliance with the initial source testing requirement

- *Source testing to measure NO_x, 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]*

2. Monitoring

Monitoring is required by District Rule 4320. Refer to Section VIII under Rule 4320 for a discussion of monitoring requirements.

3. Recordkeeping

These permit units are subject to the recordkeeping requirements of District Rules 4001 and 4320. Refer to Section VIII under Rule 4001 and Rule 4320 for discussions of the recordkeeping requirements.

4. Reporting

Reporting is not required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis

Section 4.14.1 of this Rule requires that an ambient air quality analysis (AAQA) be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The Technical Services Division of the SJVAPCD conducted the required analysis. Refer to Appendix C of this document for the AAQA summary sheet.

The proposed location is in an attainment area for NO_x, CO, and SO_x. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NO_x, CO, or SO_x.

The proposed location is in a non-attainment area for PM_{2.5} and PM₁₀. The increases in the ambient PM_{2.5} and PM₁₀ concentrations due to the proposed equipment are shown

below in the table titled Calculated Contribution. The levels of significance, from 40 CFR Part 51.165 (b)(2), are shown below in the table titled Significance Levels.

Significance Levels					
Pollutant	Significance Levels ($\mu\text{g}/\text{m}^3$) - 40 CFR Part 51.165 (b)(2)				
	Annual Avg.	24 hr Avg.	8 hr Avg.	3 hr Avg.	1 hr Avg.
PM _{2.5}	1.0	5.0	N/A	N/A	N/A
PM ₁₀	1.0	5.0	N/A	N/A	N/A

Calculated Contribution					
Pollutant	Calculated Contributions ($\mu\text{g}/\text{m}^3$)				
	Annual Avg.	24 hr Avg.	8 hr Avg.	3 hr Avg.	1 hr Avg.
PM _{2.5}	0.3	1.2	N/A	N/A	N/A
PM ₁₀	0.3	0.5	N/A	N/A	N/A

As shown, the calculated contributions of PM_{2.5} and PM₁₀ will not exceed the EPA significance levels. This project is not expected to cause or make worse a violation of an air quality standard.

Permit conditions will be included on the ATC to ensure compliance with the AAQA.

Rule 2520 - Federally Mandated Operating Permits

Teasdale does not have a Title V permit at this time. Therefore, Rule 2520 requirements for modifications are not applicable.

Rule 4001 - New Source Performance Standards

40 CFR Part 60 Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

The Code of Federal Regulations, Chapter 40 (40 CFR), Part 60, Subpart Dc lists SO_x, PM₁₀, and NO_x emission standards for steam generating units with a maximum heat input of 100 MMBtu/hr or less, but greater than or equal to 10 MMBtu/hr that are constructed, reconstructed, or modified after 6/9/1989.

Unit N-1174-9 is rated at 81.8 MMBtu/hr and will be constructed after June 9, 1989. Therefore, this unit is subject to the requirements of this subpart.

Units N-1174-1 and N-1174-3 are both rated at 25.0 MMbut/hr and were constructed prior to June 9, 1989; therefore, these units are not subject to the requirements of this subpart.

The following evaluation of the requirements of this subpart pertains to unit N-1174-9 only.

Emission Standards:

SOx Emission Standard:

Section 60.42c applies only to units that combust coal or oil. The subject unit does not burn these fuels; therefore, this subpart does not apply.

Particulate Matter Emission Standard:

Section 60.43c applies only to units that combust coal, wood or oil. The subject unit does not burn these fuels; therefore, this subpart does not apply.

Compliance Testing:

SOx Compliance Testing:

This subpart does not include a SOx standard to verify compliance with; therefore, SOx testing is not required.

Particulate Matter Testing:

This subpart does not include a particulate matter standard to verify compliance with; therefore, particulate matter testing is not required.

Emission Monitoring:

This unit is not subject to the section 60.42c SOx limit or the 60.43c PM₁₀ limit of this subpart. Therefore, monitoring is not required.

Reporting and Record Keeping:

Section 60.48c(a) states that the owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part. This notification shall include:

- (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

The design heat input capacity and type of fuel combusted at the facility will be listed on the unit's equipment description. No additional conditions are required to ensure compliance with this requirement.

- (2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel mixture of fuels under §60.42c or §40.43c.

This requirement is not applicable since the unit is not subject to §60.42c or §40.43c.

- (3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

The facility has not proposed an annual capacity factor for this unit; therefore one will not be required.

- (4) Notification if an emerging technology will be used for controlling SO₂ emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

This requirement is not applicable since the unit will not be equipped with an emerging technology used to control SO₂ emissions.

Section 60.48c(g) requires that the owner or operator of each affected facility record and maintain records of the daily amount of fuel combusted unless an applicable alternative is provided under §60.48c(g)(2) or §60.48c(g)(3). Since only natural gas will be burned, §60.48c(g)(2) is applicable to this unit. Subsection 60.48c(g)(2) allows the owner or operator to record and maintain records of the amount of fuel combusted during each calendar month; therefore, pursuant to §60.48c(g)(2), records of the monthly heat input will be required for this unit. To ensure compliance with this subsection, the following condition will be included on the permit.

- *{Modified 2981} Records of the monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4001, 4305, and 4306 and 40 CFR Part 60.48c(g)(2)]*

Section 60.48c(i) states that all records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record. District Rule 4320 requires that records be kept for five years, which is more stringent and will satisfy the recordkeeping requirements of §60.48c(i). The following condition will be included on the permit to ensure compliance with this subsection.

- *{Modified 2983} All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 4001, 4305, 4306, and 4320 and 40 CFR Part 60.48c(i)]*

Rule 4101 - Visible Emissions

District Rule 4101, Section 5.0, states that no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour, which is dark or darker than Ringelmann 1 or equivalent to 20% opacity. The following condition will be included on the permit for N-1174-9 as follows to ensure 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

Section 4.0 prohibits discharge of air contaminants, which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations provided the equipment is well maintained. Therefore, compliance with this rule is expected and a permit condition will be included on the permit for N-1174-9 as follows to ensure compliance:

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

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.

For N-1174-9:

F-Factor for NG: 8,578 dscf/MMBtu at 60 °F
 PM₁₀ Emission Factor: 0.0024 lb-PM₁₀/MMBtu (From Section VII.B)
 Fraction of PM as PM₁₀: 100%

$$\text{Grain Loading (GL)} = \left(\frac{0.0024 \text{ lb-PM}}{\text{MMBtu}} \right) \times \left(\frac{7,000 \text{ grain}}{\text{lb-PM}} \right) \times \left(\frac{\text{MMBtu}}{8,578 \text{ ft}^3} \right)$$

$$GL = 0.002 \text{ grain/dscf} < 0.1 \text{ grain/dscf}$$

The following condition will be listed on the permit for N-1174-9:

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

Rule 4301 - Fuel Burning Equipment

This rule specifies maximum emission rates in lb/hr for SO₂, NO₂, and combustion contaminants (defined as total PM in Rule 1020). This rule also limits combustion contaminants to ≤ 0.1 gr/scf. The emissions rates from this boiler are shown in the table below. The following table indicates compliance with the maximum hourly emission rates of this rule; therefore, compliance with this Rule is expected.

District Rule 4301 Limits (Natural Gas Combustion)			
Pollutant	NO ₂ (lb/hr)	Total PM (lb/hr)	SO ₂ (lb/hr)
ATC N-1174-9-0	1.1	0.2	0.2
Rule Limit (lb/hr)	140	10	200

Rule 4304 - Equipment Tuning Procedure for Boilers, Steam Generators and Process Heaters

Rule 4304 details the tuning procedure required for boilers, steam generators, and process heaters under Rules 4305, 4306, and 4320. Those rules include an exemption from tune-ups for units that operate an APCO-approved CEMS or alternate monitoring system where the applicable emission limits are periodically monitored. The applicant has proposed to use alternate monitoring system "A" from District Policy SSP-1105, *Alternate Monitoring for Rules 4305, 4306, and 4320*. Therefore, unit N-1174-9 is not subject to Rule 4304 and no further discussion is required.

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

Pursuant to Section 2.0 of District Rule 4305, boiler unit N-1174-9 is subject to District Rule 4305, *Boilers, Steam Generators and Process Heaters – Phase 2*.

Since units N-1174-1 and N-1174-3 are dormant, compliance with this rule will not be evaluated. Therefore, no further discussion is required.

Since the requirements of District Rule 4320 are either equivalent to or more stringent than the requirements of District Rule 4305, compliance with District Rule 4320 requirements will satisfy requirements of District Rule 4305. Therefore, no further discussion is required.

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

Pursuant to Section 2.0 of District Rule 4306, boiler unit N-1174-9 is subject to District Rule 4306, *Boilers, Steam Generators and Process Heaters – Phase 3*.

Since units N-1174-1 and N-1174-3 are dormant, compliance with this rule will not be evaluated. Therefore, no further discussion is required.

The facility proposes to comply with the requirements of Rule 4320 by reducing the NO_x emission concentrations to 5 ppmv for unit N-1174-9. This limit is lower than the limit required for compliance with Rule 4306 and all other requirements of Rule 4320 are at least as stringent as the requirements of Rule 4306. Therefore, compliance with Rule 4320 will be sufficient to ensure compliance with Rule 4306 and no further discussion is required.

Rule 4320 - Enhanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr

Pursuant to Section 2.0 of District Rule 4320, boiler unit N-1174-9 is subject to District Rule 4320.

Since units N-1174-1 and N-1174-3 are dormant, compliance with this rule will not be evaluated. Therefore, no further discussion is required.

The following table details compliance with the requirements of this rule for unit N-1174-9.

District Rule 4320 Requirements	Method of Compliance															
<p>Section 5.1 lists three options for facilities to comply with the requirements of the rule. The facility has proposed to comply with the option described in Section 5.1.1, which requires the facility to comply with the emission limits in Sections 5.2 and 5.4.</p> <p>Section 5.2, NO_x and CO emission limits. Boiler unit N-1174-9 is subject to the emission limits listed in Table 1, Category B. All ppmv emission limits specified in this section are referenced at dry stack gas conditions and 3.0 percent (%) by volume stack gas oxygen.</p> <table border="1" data-bbox="224 604 933 1050"> <thead> <tr> <th colspan="3">Rule 4320 Emission Limits</th> </tr> <tr> <th>Category</th> <th colspan="2">Units Operated on Gaseous Fuel (standard option)</th> </tr> <tr> <td>Unit N-1174-9</td> <td>NO_x</td> <td>CO</td> </tr> </thead> <tbody> <tr> <td>B. Units with a total rated heat input > 20.0 MMBtu/hr. Standard Schedule.</td> <td>7 ppmv or 0.008 lb/MMBtu</td> <td>400 ppmv</td> </tr> <tr> <td>Enhanced Schedule</td> <td>5 ppmv or 0.0062 lb/MMBtu</td> <td>400 ppmv</td> </tr> </tbody> </table>	Rule 4320 Emission Limits			Category	Units Operated on Gaseous Fuel (standard option)		Unit N-1174-9	NO _x	CO	B. Units with a total rated heat input > 20.0 MMBtu/hr. Standard Schedule.	7 ppmv or 0.008 lb/MMBtu	400 ppmv	Enhanced Schedule	5 ppmv or 0.0062 lb/MMBtu	400 ppmv	<p>The applicant has proposed to install a new boiler with a proposed NO_x emissions limit of 5 ppmv and a CO emissions limit of 100 ppmv.</p> <p>The proposed NO_x and CO emission limits meet the requirements of this section.</p> <p>The following conditions will be included on the permit:</p> <ul style="list-style-type: none"> • <i>Except for start-up and shutdown, NO_x emissions from the combustion of natural gas shall not exceed 5 ppmvd @ 3% O₂. [District Rules 2201, 4305, 4306, and 4320]</i> • <i>CO emissions from the combustion of natural gas shall not exceed 100 ppmvd @ 3% O₂. [District Rules 2201, 4305, 4306, and 4320]</i>
Rule 4320 Emission Limits																
Category	Units Operated on Gaseous Fuel (standard option)															
Unit N-1174-9	NO _x	CO														
B. Units with a total rated heat input > 20.0 MMBtu/hr. Standard Schedule.	7 ppmv or 0.008 lb/MMBtu	400 ppmv														
Enhanced Schedule	5 ppmv or 0.0062 lb/MMBtu	400 ppmv														
<p>Section 5.4, Particulate Matter Control Requirements, requires the operator to comply with one of the following:</p> <ol style="list-style-type: none"> 1. Fire the boiler exclusively on PUC-quality natural gas, commercial propane, or a combination of such gases. 2. Limit fuel sulfur content to no more than five grains of total sulfur per 100 standard cubic feet. 3. Install and properly operate an emission control system that reduces SO₂ emissions by at least 95%, by weight, or limit exhaust SO₂ to less than or equal to 9 ppmv, corrected to 3.0% O₂. 	<p>The boiler will be fired exclusively on PUC-quality natural gas. Therefore the requirements of Section 5.4.1 will be satisfied.</p>															
<p>Section 5.6 of this rule states that neither the Section 5.2 (Table 1) NO_x emission standard or the section 5.5.2 CO emission standard apply during start-up and shutdown periods provided the duration of no start-up or shutdown event is longer than 2 hours and the emissions are controlled to the maximum extent possible during these periods.</p>	<p>The applicant has proposed 2-hour start-up period with NO_x emission concentration of 80 ppmv. CO emission concentration during start-up will be 100 ppmv. The following conditions will be placed on the permit:</p> <ul style="list-style-type: none"> • <i>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. [District Rules 4305, 4306 and 4320] N</i> • <i>Startup or shutdown shall not exceed 2 hours per day. Cumulative duration of startups and shutdowns shall not exceed 730 hours per year. [District Rule 2201] N</i> • <i>During start-up and shutdown, NO_x emissions from the unit shall not exceed 80</i> 															

	<p>ppmvd NOx @ 3% O2. [District Rules 2201, 4305, 4306 and 4320] N</p>
<p>Section 5.7, Monitoring Provisions: Section 5.4.2 requires each unit subject to Section 5.1 to either install a continuous emissions monitoring system (CEMS) for NOx, CO and oxygen or implement an APCO-approved Alternate Emission Monitoring System.</p>	<p>The applicant has proposed to use Alternate Emission Monitoring System, Option A (periodic monitoring using District approved portable analyzer) from the District's pre-approved Alternate Monitoring Schemes per District Policy SSP 1105. The following conditions will be included on the permit:</p> <ul style="list-style-type: none">• <i>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 gas detection tubes (Drægerr brand or District approved equivalent). 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] N</i>• <i>either the NOx, CO, or NH3 concentrations, as measured by the portable analyzer and District approved ammonia monitoring equipment, exceed the permitted emission levels, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or ammonia monitoring equipment show that emissions continue to exceed the allowable levels 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 has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] N</i>• <i>{4317} All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to</i>

	<p><i>Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320]</i></p> <ul style="list-style-type: none"> • <i>The permittee shall maintain records of: (1) the date and time of NO_x, CO, NH₃, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas 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 within the acceptable rang. [District Rules 4305, 4306 and 4320] N</i>
<p>Section 5.7.6 outlines requirements for monitoring SO_x emissions. Section 5.7.6.1 requires the operator of any unit that proposes to comply with Section 5.4.1.1 (fired exclusively on PUC-quality natural gas, commercial propane, butane, LPG, or a combination of these fuel gases) or Section 5.4.1.2 (fuel sulfur content limit of 5 grains/100 scf) to provide an annual fuel analysis.</p>	<p>The boiler will be fired exclusively on PUC-Quality natural gas, which per District Policy APR 1720, the District assumes has a sulfur content not exceeding 1.0 grains/100 scf. Therefore, the District will accept analyses or other equivalent certification documents from the fuel supplier for demonstrating compliance with the SO_x emission monitoring requirement. The following condition will be included on the permit:</p> <ul style="list-style-type: none"> • <i>{4356} 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] N</i>
<p>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 5.2. The emission limits selected to demonstrate compliance shall be specified in the source test proposal pursuant to Rule 1081 (Source Sampling).</p>	<p>To ensure compliance with this section, the following condition will be listed on the permit:</p> <ul style="list-style-type: none"> • <i>{Modified 2976} The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] N</i>
<p>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.</p>	<p>Therefore, the following permit condition will be listed on the permit as follows:</p> <ul style="list-style-type: none"> • <i>{Modified 2972} 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</i>

	<p><i>Rule 4320. [District Rules 4305, 4306, and 4320] N</i></p>
<p>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 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.</p>	<p>Therefore, the following permit condition will be listed on the permit as follows:</p> <ul style="list-style-type: none"> • <i>{Modified 2980} 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] N</i>
<p>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.</p>	<p>The following permit condition will be listed on the permit as shown below:</p> <ul style="list-style-type: none"> • <i>{Modified 2983} All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 4001, 4305, 4306, and 4320 and 40 CFR Part 60.48c(i)] N</i>
<p>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.</p>	<p>Since this unit is not subject to the requirements listed in Section 5.5, it is not subject to Section 6.1.2 requirements.</p>
<p>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.</p>	<p>This unit is not subject to Section 5.5.1. Therefore, the requirements of this section do not apply.</p>
<p>Section 6.1.4 requires that the operator of a unit with startup or shutdown provisions keep records of the duration of the startup or shutdowns.</p>	<p>The applicant has proposed that the NOx emissions from this boiler will be different during start-up or shutdown events, The following condition will be included on the permit:</p> <ul style="list-style-type: none"> • <i>Daily records of start-up and shut-down durations and number of occurrences of each shall be maintained. [District Rules 2201, 4305, 4306, and 4320] N</i>
<p>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.</p>	<p>The applicant has not proposed the use of curtailment fuels; therefore, the requirements of this section do not apply.</p>
<p>Section 6.2, Test Methods, identifies the test methods as District-approved source testing methods for all applicable pollutants.</p>	<p>The following permit conditions will be listed on the permit to ensure the applicable source test are performed:</p> <ul style="list-style-type: none"> • <i>{109} 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] N</i> • <i>{Modified 2977} 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] N</i> • <i>{Modified 2978} CO emissions for source test purposes shall be determined using</i>

	<p><i>EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320]</i></p> <ul style="list-style-type: none"> • <i>{Modified 2979} Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] N</i> • <i>{3278} Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081]</i>
<p>Section 6.3.1 requires that units be tested to determine compliance with the applicable requirements of section 5.1 and 5.3 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.</p>	<p>The following conditions will be included on the permit to verify compliance with the proposed NOx and CO emission limits:</p> <ul style="list-style-type: none"> • <i>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] N</i> • <i>{110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] N</i>

Conditions will be incorporated into permit N-1174-9-0 in order to ensure compliance with each section of this rule. Compliance with District Rule 4320 is expected.

Rule 4351 - Boilers, Steam Generators and Process Heaters – Phase I

This rule applies to boilers, steam generators, and process heaters at NOx Major Sources that are not located west of Interstate 5 in Fresno, Kings, or Kern counties. If applicable, the emission limits, monitoring provisions, and testing requirements of this rule are satisfied when the unit is operated in compliance with Rule 4320. This facility is not a Major Source for NOx emissions. Therefore, this rule is not applicable.

Rule 4801 - Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO₂, on a dry basis averaged over 15 consecutive minutes.

Using the ideal gas equation and the emission factors presented in Section VII, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = \frac{n RT}{P}$$

With:

N = moles SO₂

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

Natural Gas Combustion:

$$\frac{0.00285 \text{ lb} - \text{SO}_x}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8,578 \text{ dscf}} \times \frac{1 \text{ lb} \cdot \text{mol}}{64 \text{ lb}} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}} \times \frac{520^\circ\text{R}}{14.7 \text{ psi}} \times \frac{1,000,000 \cdot \text{parts}}{\text{million}} = 1.97 \frac{\text{parts}}{\text{million}}$$

Sulfur Concentration = 1.97 ppmv < 2,000 ppmv (or 0.2%)

Therefore, compliance with District Rule 4801 requirements is expected.

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.

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (Appendix C), the total facility prioritization score including this project was greater than one. Therefore, a health risk assessment was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
N-1174-9-0	0.189 per million	No

Discussion of T-BACT

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

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 10 in a million). As outlined by the HRA Summary in Appendix C of this report, the emissions increases for this project was determined to be less than significant.

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

- *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] N*

California Health & Safety Code 42301.6 (School Notice)

As previously discussed in Section III of this document, this equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the noticing requirements of California Health and Safety Code Section 42301.6 do not apply to this project.

California Environmental Quality Act (CEQA)

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

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

Greenhouse Gas (GHG) Significance Determination

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

Pursuant to District Policy APR-2005, the potential increase in GHG emissions is considered less than significant since the applicant is proposing to implement Best Performance Standards (BPS). The following paragraph is from Section 5 of APR-2005:

Projects implementing Best Performance Standards would not require quantification of project specific GHG emissions. Consistent with CEQA Guideline, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.

The following conditions will be placed on the ATC N-1174-9-0 to ensure compliance with this section:

- *The boiler shall be equipped with an economizer designed at a maximum firing rate which will reduce the temperature of the economizer flue gas outlet to a value no*

greater than 20 degrees F above the temperature of the inlet water to the economizer and a design specification sheet for the economizer shall be made available to the District upon request. [California Environmental Quality Act]

- *Electric motors driving combustion air fans, induced draft fans and boiler feedwater pumps shall have an efficiency meeting the standards of the National Electrical Manufacturer's Association (NEMA) for "premium efficiency" motors and shall each be operated with a variable frequency speed control or equivalent for control of flow through the fan or pump. [California Environmental Quality Act]*

District CEQA Findings

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

IX. Recommendation

Since units N-1174-1-3 and N-1174-3-3 are currently non-compliant Dormant Emission Units, the conditions for each ATC are revised to reflect the non-compliant status of these units. With revised conditions for non-compliant DEUs, issue ATCs N-1174-1-3 and N-1174-3-3 subject to the permit conditions listed on the attached draft ATCs in Appendix A.

For unit N-1174-9-0, compliance with all applicable rules and regulations is expected. Issue Authority to Construct permit N-1174-9-0 subject to the permit conditions on the attached Authority to Construct permit in Appendix A.

X. Billing Information

Permit Number	Fee Schedule	Fee Description	Previous Fee Schedule
N-1174-1-3	3020-02-H	25.0 MMBtu/hr	3020-02-H
N-1174-3-3	3020-02-H	25.0 MMBtu/hr	3020-02-H
Permit Number	Fee Schedule	Fee Description	Fee Amount
N-1174-9-0	3020-02-H	81.8 MMBtu/hr	\$1,030

Appendixes

- A: Draft ATCs
- B: Top-Down BACT Analysis
- C: HRA/RMR/AAQA Summary
- D: Current PTOs
- E: QNEC Calculations
- F: Emissions Profiles

Appendix A
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: N-1174-1-3

LEGAL OWNER OR OPERATOR: TEASDALE QUALITY FOODS INC
MAILING ADDRESS: P O BOX 814
ATWATER, CA 95301-0814

LOCATION: 901 PACKERS ST
ATWATER, CA 95301

EQUIPMENT DESCRIPTION:

MODIFICATION OF 25 MMBTU/HR WEBSTER IRON FIREMAN BOILER (S/N 11019) - NON-COMPLIANT DORMANT EMISSION UNIT (DEU): LIMIT ANNUAL FUEL USAGE TO NOT EXCEED 43,800 MMBTU/YEAR TO REDUCE STATIONARY SOURCE EMISSIONS BELOW MAJOR SOURCE AND OFFSET THRESHOLDS

CONDITIONS

1. {4558} Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010]
2. No modification to this unit shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010]
3. Upon seven days prior written notice to the District, this unit may be designated as a dormant emissions unit or an active emissions unit. [District Rule 2080]
4. While dormant, the fuel line and electrical output connection shall be physically disconnected from the unit. [District Rule 2080]
5. If this unit has become dormant because it does not comply with District Rules, or if the unit becomes out of compliance with District Rules while it is dormant, operation of the unit is not authorized until an Authority to Construct permit is issued approving all necessary retrofits and permit changes required to comply with the respective District Rules. [District Rule 2010]
6. {26} The boiler shall only be fired on natural gas or No. 2 fuel oil. [District Rule 2201]
7. Maximum annual heat input to the unit shall not exceed 43,800 MMBtu per calendar year. [District Rule 2201, 4305, 4306, and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

DAVID WARNER, Director of Permit Services

N-1174-1-3 : Nov 16 2011 7:40AM - GILLEBR : Joint Inspection NOT Required

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475

8. The NO_x emissions from this unit shall not exceed 30 ppmvd @ 3% O₂. [District Rule 4305]
9. The CO emissions from this unit shall not exceed 400 ppmvd @ 3% O₂. [District Rule 4305]
10. {4560} While dormant, normal source testing shall not be required. [District Rule 2080]
11. Upon recommencing operation of this unit, normal source testing and monitoring shall resume. [District Rule 2080]
12. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
13. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request [District Rule 1070]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-1174-3-3

LEGAL OWNER OR OPERATOR: TEASDALE QUALITY FOODS INC
MAILING ADDRESS: P O BOX 814
ATWATER, CA 95301-0814

LOCATION: 901 PACKERS ST
ATWATER, CA 95301

EQUIPMENT DESCRIPTION:

MODIFICATION OF 25 MMBTU/HR WEBSTER IRON FIREMAN BOILER (S/N 11018) - NON-COMPLIANT DORMANT EMISSION UNIT (DEU); LIMIT ANNUAL FUEL USAGE TO NOT EXCEED 43,800 MMBTU/YEAR TO REDUCE STATIONARY SOURCE EMISSIONS BELOW MAJOR SOURCE AND OFFSET THRESHOLDS

CONDITIONS

1. {4558} Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010]
2. No modification to this unit shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010]
3. Upon seven days prior written notice to the District, this unit may be designated as a dormant emissions unit or an active emissions unit. [District Rule 2080]
4. While dormant, the fuel line and electrical output connection shall be physically disconnected from the unit. [District Rule 2080]
5. If this unit has become dormant because it does not comply with District Rules, or if the unit becomes out of compliance with District Rules while it is dormant, operation of the unit is not authorized until an Authority to Construct permit is issued approving all necessary retrofits and permit changes required to comply with the respective District Rules. [District Rule 2010]
6. {26} The boiler shall only be fired on natural gas or No. 2 fuel oil. [District Rule 2201]
7. Maximum annual heat input to the unit shall not exceed 43,800 MMBtu per calendar year. [District Rule 2201, 4305, 4306, and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

DAVID WARNER, Director of Permit Services
N-1174-3-3 - May 18 2011 7:48AM - GILLESPIE - Joint Inspection NOT Required

8. The NO_x emissions from this unit shall not exceed 30 ppmvd @ 3% O₂. [District Rule 4305]
9. The CO emissions from this unit shall not exceed 400 ppmvd @ 3% O₂. [District Rule 4305]
10. {4560} While dormant, normal source testing shall not be required. [District Rule 2080]
11. Upon recommencing operation of this unit, normal source testing and monitoring shall resume. [District Rule 2080]
12. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
13. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request [District Rule 1070]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-1174-9-0

LEGAL OWNER OR OPERATOR: TEASDALE QUALITY FOODS INC
MAILING ADDRESS: P O BOX 814
ATWATER, CA 95301-0814

LOCATION: 901 PACKERS ST
ATWATER, CA 95301

EQUIPMENT DESCRIPTION:

81.8 MMBTU/HR CLEAVER BROOKS NEBRASKA D TYPE MODEL # NB-300D-55 NATURAL GAS-FIRED BOILER WITH LOW-NOX BURNER, SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM, AND AN ECONOMIZER

CONDITIONS

1. Authorities to Construct N-1174-1-3, and '3-3 shall be implemented prior to or concurrently with this Authority to Construct. [District Rule 2201]
2. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. {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]
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]
6. {2964} The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201]
7. The boiler shall be equipped with an economizer designed at a maximum firing rate which will reduce the temperature of the economizer flue gas outlet to a value no greater than 20 degrees F above the temperature of the inlet water to the economizer and a design specification sheet for the economizer shall be made available to the District upon request. [District Rule California Environmental Quality Act (CEQA)]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

DAVID WARNER, Director of Permit Services
N-1174-9-0: Nov 16 2011 4:38PM - GILLESB : Job Inspection NOT Required

8. Electric motors driving combustion air fans, induced draft fans and boiler feedwater pumps shall have an efficiency meeting the standards of the National Electrical Manufacturer's Association (NEMA) for "premium efficiency" motors and shall each be operated with a variable frequency speed control or equivalent for control of flow through the fan or pump. [District Rule California Environmental Quality Act (CEQA)]
9. Duration of start-up or shutdown shall not exceed 2 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. [District Rules 4305, 4306, and 4320]
10. Start-up and shutdown shall not exceed 2 hours per day. Cumulative duration of start-ups and shutdowns shall not exceed 730 hours per year. [District Rule 2201]
11. During start-up and shutdown, NOx emissions from the unit shall not exceed 80 ppmvd NOx @ 3% O2. [District Rules 2201, 4305, 4306, and 4320]
12. Except during start-up and shutdown, NOx emissions from the combustion of natural gas shall not exceed 5 ppmvd @ 3% O2. [District Rules 2201, 4305, 4306, and 4320]
13. CO emissions from the combustion of natural gas shall not exceed 100 ppmvd @ 3% O2. [District Rules 2201, 4305, 4306, and 4320]
14. VOC emissions from the combustion of natural gas shall not exceed 10 ppmvd @ 3% O2. [District Rules 2201, 4305, 4306, and 4320]
15. PM10 emissions from the combustion of natural gas shall not exceed 0.0024 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320]
16. SOx emissions from the combustion of natural gas shall not exceed 0.00285 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320]
17. The ammonia (NH3) emissions shall not exceed 10 ppmvd @ 3% O2. [District Rule 2201]
18. 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]
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]
20. {109} 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]
21. {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
22. The source test plan shall identify which basis (ppmvd or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320]
23. 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]
24. 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]
25. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320]
26. {3278} Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081]
27. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320]

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CONDITIONS CONTINUE ON NEXT PAGE

28. 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]
29. The permittee shall monitor and record the stack concentration of NO_x, CO, NH₃ and O₂ at least once during each month in which source testing is not performed. NO_x, CO and O₂ monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH₃ monitoring shall be conducted utilizing gas detection tubes (Dräger brand or District approved equivalent). 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]
30. Ammonia emissions readings shall be conducted at the time the NO_x, CO, and O₂ readings are taken. The readings shall be converted to ppmvd @ 3% O₂. [District Rules 4305, 4306, and 4320]
31. If either the NO_x, CO, or NH₃ concentrations, as measured by the portable analyzer and District approved ammonia monitoring equipment, exceed the permitted emission levels, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or ammonia monitoring equipment show that emissions continue to exceed the allowable levels 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 has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320]
32. {4317} All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320]
33. The permittee shall maintain records of: (1) the date and time of NO_x, CO, NH₃, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas 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 within the acceptable range. [District Rules 4305, 4306 and 4320]
34. {4356} 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]
35. Daily records of start-up and shutdown durations and number of occurrences of each shall be maintained [District Rules 2201, 4305, 4306, and 4320]
36. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4001, 4305, and 4306 and 40 CFR Part 60.48c(g)(2)]
37. 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, 4001, 4305, 4306, and 4320 and 40 CFR Part 60.48c(i)]

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Appendix B
Top-Down BACT Analysis

Top-Down BACT Analysis for N-1174-9-0

Top-Down BACT Analysis for NO_x

Step 1 – Identify All Possible Control Technologies:

The District's BACT Guideline for this class of boiler has been rescinded from the BACT clearinghouse since District Rule 4320 requires more stringent NO_x emission limits than the ones listed in this guideline. The District considers the following NO_x emission limits to conduct a BACT analysis for new projects:

- Option 1: NO_x emission rate of 6 ppmvd @ 3% O₂ (0.007 lb/MMBtu), Achieved-in-Practice (AIP)
- Option 2: NO_x emission rate of 5 ppmvd @ 3% O₂ (0.0062 lb/MMBtu), Technologically Feasible (TF)
- Option 3: Alternate Basic Equipment (ABE) – None

Step 2 – Eliminate Technologically Infeasible Options:

There are no technologically infeasible options shown in Step 1.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness:

1. 5.0 ppmvd @ 3% O₂ (0.0062 lb/MMBtu) – TF
2. 6.0 ppmvd @ 3% O₂ (0.007 lb/MMBtu) – AIP

Step 4 – Cost Effectiveness Analysis:

The applicant is proposing to install a boiler that is capable of achieving an emission concentration of 5 ppmvd NO_x @ 3% O₂ (0.0062 lb/MMBtu) which is equivalent to the Technologically Feasible option that is presented above.

Since the applicant is proposing the Technologically Feasible level of NO_x control for the new boiler, then a cost-effectiveness analysis is not required.

Step 5 – Select BACT:

As discussed in Step 4 the applicant has proposed to meet a NO_x emission concentration that equal to the Technologically Feasible option; therefore BACT for NO_x emissions is satisfied.

Top-Down BACT Analysis for SO_x

Step 1 – Identify All Possible Control Technologies:

The District's BACT Guideline for this class of boiler has been rescinded from the BACT clearinghouse since District Rule 4320 requires more stringent NO_x emission limits than the ones listed in this guideline. The following techniques are considered to reduce SO_x emissions for a boiler:

- Option 1: Use of natural gas or LPG fuel, Achieved-in-Practice (AIP)
- Option 2: Technologically Feasible (TF) - None
- Option 3: Alternate Basic Equipment (ABE) – None

Step 2 – Eliminate Technologically Infeasible Options:

There are no technologically infeasible options shown in Step1.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness:

1. Use of natural gas or LPG fuel.

Step 4 – Cost Effectiveness Analysis:

There are no technologically feasible options identified in Step 1 above. Therefore, a cost-effectiveness analysis is not required.

Step 5 – Select BACT:

The remaining control not eliminated in Step 4 is the AIP BACT for this class and category of source, which is the use of natural gas or LPG fuel. The applicant has proposed to use only use natural gas. Therefore, BACT for SOx emissions is satisfied.

Top-Down BACT Analysis for PM₁₀

Step 1 – Identify All Possible Control Technologies:

The District's BACT Guideline for this class of boiler has been rescinded from the BACT clearinghouse since District Rule 4320 requires more stringent NOx emission limits than the ones listed in this guideline. The following techniques are considered to reduce PM₁₀ emissions for a boiler:

- Option 1: Use of natural gas or LPG fuel, Achieved-in-Practice (AIP)
- Option 2: Technologically Feasible (TF) - None
- Option 3: Alternate Basic Equipment (ABE) – None

Step 2 – Eliminate Technologically Infeasible Options:

There are no technologically infeasible options shown in Step1.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness:

1. Use of natural gas or LPG fuel.

Step 4 – Cost Effectiveness Analysis:

There are no technologically feasible options identified in Step 1 above. Therefore, a cost-effectiveness analysis is not required.

Step 5 – Select BACT:

The remaining control not eliminated in Step 4 is the AIP BACT for this class and category of source, which is the use of natural gas or LPG fuel. The applicant has proposed to use only use natural gas. Therefore, BACT for PM₁₀ emissions is satisfied.

Top-Down Analysis for VOC

Step 1 – Identify All Possible Control Technologies:

The District's BACT Guideline for this class of boiler has been rescinded from the BACT clearinghouse since District Rule 4320 requires more stringent NOx emission limits than the ones listed in this guideline. The following techniques are considered to reduce VOC emissions for a boiler:

Option 1: Use of natural gas or LPG fuel, Achieved-in-Practice (AIP)

Option 2: Technologically Feasible (TF) - None

Option 3: Alternate Basic Equipment (ABE) – None

Step 2 – Eliminate Technologically Infeasible Options:

There are no technologically infeasible options shown in Step 1.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness:

1. Use of natural gas or LPG fuel.

Step 4 – Cost Effectiveness Analysis:

There are no technologically feasible options identified in Step 1 above. Therefore, a cost-effectiveness analysis is not required.

Step 5 – Select BACT:

The remaining control not eliminated in Step 4 is the AIP BACT for this class and category of source, which is the use of natural gas or LPG fuel. The applicant has proposed to use only use natural gas. Therefore, BACT for VOC emissions is satisfied.

Appendix C
HRA/RMR/AAQA Summary

**San Joaquin Valley Air Pollution Control District
Risk Management Review
REVISED**

To: Robert Gilles – Permit Services
 From: Cheryl Lawler – Technical Services
 Date: October 20, 2011
 Facility Name: Sun Garden – Gangi Canning Company
 Location: 901 Packers Street, Atwater
 Application #(s): N-1174-9-0
 Project #: N-1111419

A. RMR SUMMARY

RMR Summary			
Categories	Natural Gas Boiler (Unit 9-0)	Project Totals	Facility Totals
Prioritization Score	0.04	0.04	>1
Acute Hazard Index	0.00	0.00	0.00
Chronic Hazard Index	0.00	0.00	0.00
Maximum Individual Cancer Risk	1.89E-07	1.89E-07	1.89E-07
T-BACT Required?	No		
Special Permit Conditions?	Yes		

Proposed Permit Conditions

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

Unit 9-0

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

B. RMR REPORT

I. Project Description

Technical Services received a request on October 18, 2011, to re-run a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for the installation of a new 81.8 MMBtu/hr natural gas boiler at a canning facility. The project is being re-run in order to add ammonia emissions that were not previously addressed, and to revise previously submitted emission rates.

II. Analysis

For the Risk Management Review, toxic emissions from the project were calculated using Ventura County emission factors for natural gas external combustion. In accordance with the District's *Risk Management Policy for Permitting New and Modified Sources* (APR 1905-1, March 2, 2001), risks from the proposed project were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEART's database. The total project prioritization score was less than 1.0 (see RMR Summary Table); however, the facility's combined prioritization scores totaled to greater than one. Therefore, a refined Health Risk Assessment was required and performed for the project. AERMOD was used with point source parameters outlined below and concatenated 5-year meteorological data from Merced to determine maximum dispersion factors at the nearest residential and business receptors. The dispersion factors were input into the HARP model to calculate the Chronic and Acute Hazard Indices and the Carcinogenic Risk using a worksite adjustment.

The following parameters were used for the review:

Analysis Parameters			
Source Type	Point	Closest Receptor (m)	305*
Stack Height (m)	12.19	Closest Receptor Type	Business
Stack Diameter (m)	1.07	Project Location Type	Urban
Gas Exit Temperature (K)	393	Stack Gas Velocity (m/s)	11.55

*Because the nearest residence is located at 402 meters away, a worksite adjustment was used while calculating the Maximum Individual Cancer Risk for this project.

Technical Services also performed modeling for criteria pollutants CO, NO_x, SO_x, PM₁₀, and PM_{2.5}, as well as the RMR. Emission rates used for criteria pollutant modeling were 6.05 lb/hr CO, 1.13 lb/hr NO_x, 0.23 lb/hr SO_x, 0.20 lb/hr PM₁₀, and 0.20 PM_{2.5}.

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*
 Values are in $\mu\text{g}/\text{m}^3$

Natural Gas Boiler	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO _x	Pass ²	X	X	X	Pass
SO _x	Pass	Pass	X	Pass	Pass
PM ₁₀	X	X	X	Pass ¹	Pass ¹
PM _{2.5}	X	X	X	Pass ³	Pass ³

*Results were taken from the attached PSD spreadsheet.

¹The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

²The project was compared to the 1-hour NO₂ National Ambient Air Quality Standard that became effective on April 12, 2010, using the District's approved procedures.

³For this case as per District procedure, minor PM_{2.5} sources are modeled only for primary PM_{2.5} concentrations, and these concentrations are compared to the 24-hour SIL of 1.2 $\mu\text{g}/\text{m}^3$ and the annual SIL of 0.3 $\mu\text{g}/\text{m}^3$.

III. Conclusion

The criteria modeling runs indicate the emissions from the proposed equipment will not cause or significantly contribute to a violation of a State or National AAQS.

The acute and chronic indices are below 1.0; and the maximum individual cancer risk associated with the project is **1.89E-07**, which is less than the 1 in a million threshold. In accordance with the District's Risk Management Policy, the project is approved **without** Toxic Best Available Control Technology (T-BACT).

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

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

Appendix D
Current PTOs

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-1174-1-1

EXPIRATION DATE: 09/30/2013

EQUIPMENT DESCRIPTION:

25 MMBTU/HR WEBSTER IRON FIREMAN BOILER (S/N 11019) - DORMENT EMISSION UNIT (DEU)

PERMIT UNIT REQUIREMENTS

1. This equipment shall not be operated for any reason until necessary retrofits are made to comply with the applicable requirements of District Rule 4305. [District Rule 4305]
2. No modification to this unit shall be performed without Authority to Construct for that modification(s), except for changes specified in condition #3, below. [District Rule 2201]
3. The fuel supply line and electrical output connection shall be physically disconnected from the emission unit. [District Rule 4305]
4. The NO_x emissions from this unit shall not exceed 30 ppmvd @ 3% O₂ or 0.036 lb/MMBtu. [District Rule 4305]
5. The CO emissions from this unit shall not exceed 400 ppmv @ 3% O₂. [District Rule 4305]
6. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201]
7. The boiler shall only be fired on natural gas or No. 2 fuel oil. [District NSR Rule]
8. An analysis showing the sulfur and nitrogen contents of each load of fuel oil received shall be maintained on the premises for period of at least five years and shall be made available for District inspection upon request. [District Rule 1070]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-1174-3-1

EXPIRATION DATE: 09/30/2013

EQUIPMENT DESCRIPTION:

25 MMBTU/HR WEBSTER IRON FIREMAN BOILER (S/N 11018) - DORMANT EMISSION UNIT (DEU)

PERMIT UNIT REQUIREMENTS

1. This equipment shall not be operated for any reason until necessary retrofits are made to comply with the applicable requirements of District Rule 4305. [District Rule 4305]
2. No modification to this unit shall be performed without Authority to Construct for that modification(s), except for changes specified in condition #3, below. [District Rule 2201]
3. The fuel supply line and electrical output connection shall be physically disconnected from the emission unit. [District Rule 4305]
4. The NOx emissions from this unit shall not exceed 30 ppmvd @ 3% O2 or 0.036 lb/MMBtu. [District Rule 4305]
5. The CO emissions from this unit shall not exceed 400 ppmv @ 3% O2. [District Rule 4305]
6. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201]
7. The boiler shall only be fired on natural gas or No. 2 fuel oil. [District NSR Rule]
8. An analysis showing the sulfur and nitrogen contents of each load of fuel oil received shall be maintained on the premises for period of at least five years and shall be made available for District inspection upon request. [District Rule 1070]

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