



DEC 21 2015

Mr. Daniel Lee
Wonderful Pistachios & Almonds
13646 Highway 33
Lost Hills, CA 93249

**Re: Proposed Authority to Construct/Certificate of Conformity (Minor Mod)
District Facility # S-377
Project # 1154190**

Dear Mr. Lee:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project authorizes a Temporary Replacement Emissions Unit (TREU) for a boiler.

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

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,



Arnaud Marjollet
Director of Permit Services

Enclosures

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

Seyed Sadredin
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San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Temporary Replacement Emissions Unit: Boiler

Facility Name:	Wonderful Pistachios & Almonds	Date:	December 8, 2015
Mailing Address:	13646 Highway 33 Lost Hills, CA 93249	Engineer:	Richard Edgehill
Contact Person:	Daniel Lee	Lead Engineer:	Richard Karrs
Telephone:	(661) 797-6505		
Application #:	S-377-57-0		
Project #:	1154190		
Complete:	December 7, 2015		

RWK 12/8/15

I. Proposal

Wonderful Pistachios & Almonds (WPA) has proposed to install a 12.6 MMBtu/hr natural gas-fired boiler as a temporary replacement emissions unit (TREU) for S-377-34 (see current permit in **Attachment I**). The TREU will replace the regularly permitted unit for up to 180 days during a 12-month period while the regular unit is being serviced or repaired.

WPA has received their Title V Operating Permit. This modification can be classified as a Title V minor modification pursuant to Rule 2520, Section 3.20, and could be processed with a Certificate of Conformity (COC).

Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the ATC(s), and the facility must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC(s) issued with this project.

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 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4301	Fuel Burning Equipment (12/17/92)
Rule 4305	Boilers, Steam Generators and Process Heaters – Phase II (8/21/03)
Rule 4306	Boilers, Steam Generators and Process Heaters – Phase III (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 4801 Sulfur Compounds (12/17/92)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
California Environmental Quality Act (CEQA)
Public Resources Code 21000-21177: CEQA
Title 14 CCR, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The project is located at 13646 Highway 33, Lost Hills. The District has verified that the equipment is not located within 1,000 feet of the outer boundary of a K-12 school.

IV. Process Description

WPA operates a natural gas-fired boiler used to generate hot water used in the facility's almond processing operation.

As a TREU, it may only be located at the stationary source for up to 180 days during any 12 month period.

V. Equipment Listing

S-377-57-0: 12.6 MMBTU/HR SUPERIOR MODEL MS8-4-1250-S250 NATURAL GAS-FIRED BOILER WITH AN ALZETA CSB ULTRA LOW NOX BURNER, OR EQUIVALENT, SERVING AS TREU FOR S-377-34

VI. Emission Control Technology Evaluation

Since the TREU has lower emissions than the unit being replaced, an emission control technology evaluation is not necessary.

VII. General Calculations

A. Assumptions

Operating schedule:	24 hours/day
Density of diesel fuel:	7.1 lb/gal
EPA F-factor (adjusted to 60 °F):	9,051 dscf/MMBtu
Fuel heating value:	137,000 Btu/gal
BHP to Btu/hr conversion:	2,542.5 Btu/bhp-hr
Thermal efficiency of engine:	commonly \approx 35%
PM ₁₀ fraction of diesel exhaust:	0.96 (CARB, 1988)

B. Emission Factors

The following emissions factors for the TREU engine have been supplied by the applicant/manufacturer/certification. The emission factors for the existing unit being replaced are taken from the current permit. Both sets of emission factors are presented in the following tables.

S-377-34

Pollutant	Pre-Project Emission Factors (EF1)		Source
NO _x	0.008 lb-NO _x /MMBtu	7 ppmvd NO _x (@ 3%O ₂)	Current Permit
SO _x	0.00285X lb-SO _x /MMBtu		Current Permit
PM10	0.005 lb-PM10/MMBtu		Current Permit
CO	0.037 lb-CO/MMBtu	50 ppmvd CO (@ 3%O ₂)	Current Permit
VOC	0.0028 lb-VOC/MMBtu		Current Permit

Post-Project Emission Factors (EF2)

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

S-377-57

Pollutant	Pre-Project Emission Factors (EF1)		Source
NO _x	0.012 lb-NO _x /MMBtu	9 ppmvd NO _x (@ 3%O ₂)	Boiler Manufacturer
SO _x	0.00285X lb-SO _x /MMBtu		District Standard for Natural Gas
PM10	0.005 lb-PM10/MMBtu		Applicant Proposed
CO	0.037 lb-CO/MMBtu	50 ppmvd CO (@ 3%O ₂)	Boiler Manufacturer
VOC	0.0028 lb-VOC/MMBtu		Boiler Manufacturer

C. Calculations

1. Pre-Project Emissions (PE1)

The pre-project emissions are the emissions from the unit that is being temporarily replaced (S-377-34), and are presented in the following table.

Pollutant	Daily PE1			
	EF1 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/day)	Daily PE1 (lb/day)
NO_x	0.008	21	24	4.0
SO_x	0.00285	21	24	1.4
PM₁₀	0.0050	21	24	2.5
CO	0.037	21	24	18.6
VOC	0.0028	21	24	1.4

Pollutant	Annual PE1			
	EF1 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/year)	Annual PE1 (lb/year)
NO_x	0.008	21	8,760	1,472
SO_x	0.00285	21	8,760	524
PM₁₀	0.0050	21	8,760	920
CO	0.037	21	8,760	6,807
VOC	0.0028	21	8,760	515

2. Post-Project PE (PE2)

The daily PE2 are the emissions from the TREU and are calculated in the following table.

- PE2 = EF (lb/MMBtu) × Heat Input (MMBtu/hr) × Op. Sched. (hr/day or hr/year)

Pollutant	Daily PE2			
	EF2 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/day)	Daily PE2 (lb/day)
NO _x	0.012	12.6	24	3.6
SO _x	0.00285	12.6	24	0.9
PM ₁₀	0.0050	12.6	24	1.5
CO	0.037	12.6	24	11.2
VOC	0.0028	12.6	24	0.8

Pollutant	Annual PE2			
	EF2 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/year)	Annual PE2 (lb/year)
NO _x	0.012	12.6	4,320	653
SO _x	0.00285	12.6	4,320	155
PM ₁₀	0.0050	12.6	4,320	272
CO	0.037	12.6	4,320	2,014
VOC	0.0028	12.6	4,320	152

Emissions Profiles are included in **Attachment II**.

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

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

The SSPE1 (SSPE2 project 1144292, latest in PAS) for this facility is as summarized in the following table:

SSPE1 (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE1	98,041	4,111	18,446	48,347	16,706

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

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

SSPE2 (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE1	98,041	4,111	18,446	48,347	16,706
S-377-34	-1,472	-524	-920	-6,807	-515
S-377-57	653	155	272	2,014	152
	97,222	3,742	17,798	43,554	16,343

5. Major Source Determination

Rule 2201 Major Source Determination:

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

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

Rule 2201 Major Source Determination (lb/year)						
	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO	VOC
SSPE1	98,041	4,111	18,446	18,446	48,347	16,706
SSPE2	97,222	3,742	17,798	17,798	43,554	16,343
Major Source Threshold	20,000	140,000	140,000	200,000	200,000	20,000
Major Source?	Yes	No	No	No	No	No

Note: PM2.5 assumed to be equal to PM10

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

Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore the following PSD Major Source thresholds are applicable:

PSD Major Source Determination (tons/year)						
	NO2	VOC	SO2	CO	PM	PM10
Estimated Facility PE before Project Increase	49.0	8.4	2.1	24.2	9.2	9.2
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source ? (Y/N)	N	N	N	N	N	N

As shown above, the facility is not an existing major source for PSD for at least one pollutant. Therefore the facility is not an existing major source for PSD.

6. Baseline Emissions (BE)

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

Pursuant to Section 3.7 of District Rule 2201, BE = PEI 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.

Pursuant to Rule 2201, Section 3.12, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

The subject emissions unit is a new emissions unit, therefore BE = 0.

7. SB 288 Major Modification

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

The facility is not a Major Source for SO_x, PM₁₀, and VOC and therefore the project is not a SB 288 Major Modification for these air contaminants.

As discussed in Section VII.C.5 above, the facility is an existing Major Source for NO_x; however, the project by itself would need to be a significant increase in order to trigger a Major Modification. The emissions unit(s) within this project does not have a total potential to emit which is greater than Major Modification thresholds (see table below). Therefore, the project cannot be a significant increase and the project does not constitute a Major Modification.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Thershold (lb/yr)	SB 288 Major Modification Calculation Required?
NO _x	653	50,000	No
SO _x	Na	80,000	No
PM ₁₀	Na	30,000	No
VOC	na	50,000	No

8. Federal Major Modification

District Rule 2201, Section 3.17 states that Federal Major Modifications are the same as "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA. SB 288 Major Modifications are not Federal Major Modifications if they meet the criteria of the "Less-Than-Significant Emissions Increase" exclusion.

A Less-Than-Significant Emissions Increase exclusion is for an emissions increase for the project, or a Net Emissions Increase for the project (as defined in 40 CFR 51.165 (a)(2)(ii)(B) through (D), and (F)), that is not significant for a given regulated NSR pollutant, and therefore is not a Federal Major Modification for that pollutant.

- To determine the post-project projected actual emissions from existing units, the provisions of 40 CFR 51.165 (a)(1)(xxviii) shall be used.
- To determine the pre-project baseline actual emissions, the provisions of 40 CFR 51.165 (a)(1)(xxxv)(A) through (D) shall be used.

- If the project is determined not to be a Federal Major Modification pursuant to the provisions of 40 CFR 51.165 (a)(2)(ii)(B), but there is a reasonable possibility that the project may result in a significant emissions increase, the owner or operator shall comply with all of the provisions of 40 CFR 51.165 (a)(6) and (a)(7).
- Emissions increases calculated pursuant to this section are significant if they exceed the significance thresholds specified in the table below.

Pollutant	Threshold (lb/year)
VOC	0
NOx	0
PM10	30,000
SOx	80,000

The Net Emissions Increases (NEIs) for purposes of determination of a “Less-Than-Significant Emissions Increase” exclusion will be calculated below to determine if this project qualifies for such an exclusion.

The replacement of the boiler with a smaller boiler, does not result in an increase in design capacity or potential to emit, and it does not impact the ability of the emission unit to operate at a higher utilization rate (there will be no change in throughput). Therefore the unused baseline capacity emissions (portion of PAE that unit could have accommodated) can also be excluded from the project Net Emissions Increase (NEI) calculation as follows:

$$\text{NEI} = \text{PAE} - \text{BAE} - \text{unused baseline capacity emissions}$$

The District has determined that the unit could have emitted PAE during the baseline period (when it emitted BAE) and therefore the unused baseline emissions are equal to PAE – BAE and NEI = 0. Therefore the project is not a Federal Major Modification.

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

Rule 2410 applies to pollutants for which the District is in attainment or for unclassified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

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

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not (See Section VII.C.5 of this document).

If the facility is an existing source but not an existing PSD Major Source, the second step to determine PSD applicability is to determine if the project, by itself, would be a PSD Major Source.

Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

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

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO2	VOC	SO2	CO	PM	PM10
Total PE from New and Modified Units	0.3	0.1	0.1	1.1	0.2	0.2
PSD Major Source Thresholds	250	250	250	250	250	250
New PSD Major Source?	N	N	N	N	N	N

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis is required.

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated to establish emissions that are used to complete the District's PAS emissions profile screen. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

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

Since the permit unit is new QNEC = PE2/4

VIII. Compliance

Rule 2201 - New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

Pursuant to Section 4.2.5, the TREU is exempt from BACT requirements.

B. Offsets

Pursuant to Section 4.6.5, the TREU is exempt from offset requirements.

C. Public Notification

The emissions from the TREU do not exceed the emissions from the unit being replaced. Since the TREU may not be operated at the same time as the unit being replaced, there is no change in emissions associated with this project. Therefore, Public Noticing is not required.

D. Daily Emissions Limits (DELs)

DELs and other enforceable conditions are required to restrict a unit's maximum daily emissions to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and the latest PTO and enforceable, in a practicable manner, on a daily basis. The following conditions are listed on the permit to ensure compliance.

Except during startup and shutdown periods emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 9 ppmv NO_x @ 3% O₂ or 0.012 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.005 lb-PM₁₀/MMBtu, 50 ppmv CO @ 3% O₂ or 0.037 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District NSR Rule and District Rules 4305, 4306, and 4320] Y

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy FYI-103, source testing is not required for TREUs.

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

In order to meet the definition of a TREU, the unit must not be operated or retained on-site for more than 180 days in any 12 month period. The time spent at a maintenance or storage facility is not considered time located at the stationary source.

The following conditions are listed on the permit to ensure compliance.

- *The operator shall maintain records of the specific equipment that this unit replaces, and of the dates and location of its operation. Operator shall maintain a record of each individual period of time and of the total time that this unit is located at this stationary source. [District Rule 2201]*

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

5. TREU Qualification

Pursuant to Section 3.41.1, the PE from a TREU must not exceed the PE from the existing emissions unit that it replaces.

The daily emissions (based on 24 hours per day) from the TREU are compared to the daily emissions from the existing unit in the following table.

Daily PE Comparison (lb/day)		
Pollutant	S-377-34	TREU S-377-57
NO _x	4.0	3.6
SO _x	1.4	0.9
PM ₁₀	2.5	1.5
CO	18.6	11.2
VOC	1.4	0.8

As shown above, the none of the daily emissions from the TREU do not exceed the emissions from the engine being replaced.

The following condition is listed on the permit to ensure compliance.

- *This unit shall only be used to temporarily replace an existing unit that is shut down for maintenance or repair, and may only be used in this capacity if it meets the criteria set forth for a TREU in Rule 2201, Sections 3.41.1 through 3.41.3. [District Rule 2201]*

Rule 2520 - Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit.

In accordance with Rule 2520, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
 - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

As discussed above, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment/minor modification application.

The Title V Compliance Certification form is included in **Attachment III**.

Rule 4001 New Source Performance Standards (NSPS)

40 CFR Part 60, Subpart Dc applies to Small Industrial-Commercial-Industrial Steam Generators between 10 MMBtu/hr and 100 MMBtu/hr for which construction, modification, or reconstruction is commenced after June 9, 1989.

The boiler is subject to subpart Dc requirements. The boiler will combust only natural gas, therefore the only applicable requirements of this Subpart are the following recordkeeping and reporting requirements: §60.48c (a), (g), and (i).

60.48c - Reporting and Recording Keeping Requirements:

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 conditions are required to show 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; 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) states that the owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.

Since the unit has been evaluated assuming that it will consume the maximum amount of fuel allowed by the burner each day, the facility will not be required to record the daily amount of fuel consumed by the steam generators.

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 4306 requires that records be kept for five years.

Since all requirements of Subpart Dc are already met through compliance with District rules, no additional conditions will be required for compliance with subpart Dc.

Rule 4101 Visible Emissions

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

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

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

Therefore, compliance with District Rule 4101 requirements is expected.

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants that could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations provided the equipment is well maintained. Therefore, compliance with this rule is expected.

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

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

Therefore, compliance with District Rule 4102 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.

FYI-321 states that "For the purpose of APR 1905, replacement units (resulting in a decrease in emissions) are not subject of a Risk Management Review (RMR) because no increase in permitted emissions are authorized."

Therefore a HRA for this project is not required.

Rule 4201 Particulate Matter Concentration

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

F-Factor for NG: 8,578 dscf/MMBtu at 60°F
 Excess oxygen concentration: 3%
 Excess air correction to F-Factor: $20.9/(20.9-3) = 1.17$
 Percentage of PM as PM10 in exhaust: 100%
 PM10 Emission Factor: 0.0076lb-PM10/MMBtu

The grain loading is calculated as follows:

$$GL = \left[0.005 \left(\frac{lb - PM10}{MMBtu} \right) \times 7,000 \left(\frac{grain}{lb} \right) \right] \div \left[8,578 \left(\frac{dscf}{MMBtu} \right) \times 1.17 \right]$$

$$GL = 0.003 \frac{gr}{dscf} < 0.1 \frac{gr}{dscf}$$

Therefore, compliance with this rule is expected.

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

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

Therefore, compliance with District Rule 4201 requirements is expected.

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. According to AP 42 (Table 1.4-2, footnote c), all PM emissions from natural gas combustion are less than 1 μm in diameter.

Rule 4301 Limits			
Pollutant	NO ₂	SO ₂	PM
S-377-57-0 (lb/hr)	0.15	0.04	0.10
Rule Limit (lb/hr)	140	200	10

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

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

The subject unit is subject to Rule 4305, Boilers, Steam Generators and Process Heaters — Phase 2. In addition, the unit is also subject to District Rule 4320.

Since emissions limits of Rule 4320 and all other requirements are equivalent or more stringent than District Rule 4305 requirements, compliance with District Rule 4320 requirements will satisfy requirements of District Rule 4305.

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

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

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

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

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

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

Section 5.2 NO_x and CO Emission Limits

The 12.6 MMBtu/hr gas-fired unit is subject to the following limits:

CO: 400 ppmv @ 3% O₂

NO_x: 9 ppmv @ 3%O₂

The proposed emission factors are 50 ppmv CO @ 3% O₂ and 9 ppmv NO_x @ 3%O₂. Therefore compliance is expected.

Section 5.4 Particulate Matter Control Requirements

The boiler will be fired exclusively on PUC-quality natural gas, therefore compliance with this section is expected.

Section 5.6, Startup and Shutdown Provisions

Startup and shutdown provisions have not been proposed.

Section 5.7, Monitoring Provisions

Section 5.7 requires either use of an APCO approved Continuous Emissions Monitoring System (CEMS) for NO_x, CO, and oxygen, or implementation of an APCO-approved Alternate Monitoring System.

In order to satisfy the requirements of District Rule 4320, the applicant has proposed to use pre-approved alternate monitoring scheme A (pursuant to District Policy SSP-1105), which requires that monitoring of NO_x, CO, and O₂ exhaust concentrations shall be conducted at least once per month (in which a source test is not performed) using a portable analyzer as reflected in the following permit condition:

This unit is subject to all alternate monitoring and related recordkeeping requirements as the unit that is being replaced. [District Rule 2201] Y

Section 6.1 Recordkeeping

Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.5 shall be maintained for five calendar years and shall be made available to the APCO and EPA 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.

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

{2983} All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320]

Section 6.2 Test Methods

As explained below source testing will not be required. This section is applicable only to alternate monitoring.

Section 6.3 Compliance Testing

Pursuant to FYI 103 "Permits for Temporary Emissions Units" the requirement for source testing is left to the discretion of the District. The proposed 9 ppmv @ 3% O₂ limit has been guaranteed by the manufacturer (**Attachment IV**) and has been demonstrated in practice for several similar units in the District. Therefore source testing will not be required.

Conclusion

Conditions will be incorporated into the permit in order to ensure compliance with each section of this rule. Therefore, continued compliance with District Rule 4320 requirements is expected.

District Rule 4351 Boilers, Steam Generators and Process Heaters — Phase 1

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

District Rule 4801 Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2% by volume calculated as SO₂, on a dry basis averaged over 15 consecutive minutes. Compliance with the requirements of Rule 4320 ensures that the much higher emission limits of Rule 4801 will be met. Continued compliance is expected.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 *Risk Management Policy for Permitting New and Modified Sources* (3/2/01) specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

The emissions from the TREU do not exceed the emissions from the unit being replaced. Since the TREU may not be operated at the same time as the unit being replaced, there is no change in emissions associated with this project. Therefore, a Health Risk Assessment is not necessary.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a K-12 school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

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

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

Greenhouse Gas (GHG) Significance Determination

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

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

District CEQA Findings

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15301 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. The issuance of ATC S-377-57-0 is recommended subject to the conditions listed on the attached draft ATC (**Attachment V**).

X. Billing Information

Billing Schedule			
Permit Number	Fee Schedule	Fee Description	Fee Amount
S-377-57-0	3020-02G	12.6 MMBtu/hr	\$855

Attachments

- I. Current Permit
- II. Emissions Profile
- III. Compliance Certification Form
- IV: Manufacturer Emissions
- V. Draft ATC

ATTACHMENT I
Current Permit

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-377-34-6

EXPIRATION DATE: 10/31/2016

SECTION: NE23 **TOWNSHIP:** 26S **RANGE:** 19E

EQUIPMENT DESCRIPTION:

21 MMBTU/HR CLEAVER BROOKS MODEL CB700X (500 HP) NATURAL GAS-FIRED BOILER WITH A NT1700-500 ULTRA LOW NOX BURNER

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. Unit shall be only fired on PUC-regulated natural gas. [District NSR Rule, District Rule 4301, 5.2.1 and 40 CFR § 60.42c(d)] Federally Enforceable Through Title V Permit
5. The duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
6. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
7. Except during startup and shutdown periods emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmv NO_x @ 3% O₂ or 0.008 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.005 lb-PM₁₀/MMBtu, 50 ppmv CO @ 3% O₂ or 0.037 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District NSR Rule and District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
8. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by: ASTM D 240 or D 2382 for liquid hydrocarbon fuels; ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, 6.2.1, 4306, 6.2.1, and 4320, 6.2.1] Federally Enforceable Through Title V Permit
9. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. This unit shall be tested for compliance with the NO_x and CO emissions limits at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
11. Nitrogen oxide (NO_x) emission concentrations in ppmv referenced at dry stack emissions shall be corrected to 3% O₂ and lb/MMBtu rates shall be calculated as lb NO₂/MMBtu of heat input (hhv). [District Rules 4305, 8.1, 4306, 8.1, and 4320, 8.1] Federally Enforceable Through Title V Permit
12. 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 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
13. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
14. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
16. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
19. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
22. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. Operator shall maintain all records for at least five years and conform to the recordkeeping requirements described in District Rule 2520. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. 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 2520, 9.4.2, 1070, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), 408 and 409 (Kern), and 408 (all six remaining counties in the San Joaquin Valley); Rule 404 (Madera) 406 (Fresno), and 407 (all six remaining counties in the San Joaquin Valley); SJVUAPCD Rule 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
27. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 4201, 4301, 4305, and 4351. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
28. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
29. The requirements of 40 CFR 72.6(b) are not applicable because this is not an affected unit under the acid rain provisions. The requirements of 40 CFR 60.40c do not apply to this source because it is not used to produce electricity for sale. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

ATTACHMENT II
Emissions Profile

Permit #: S-377-57-0	Last Updated
Facility: WONDERFUL PISTACHIOS & ALMONDS	12/07/2015 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	653.0	155.0	272.0	2014.0	152.0
Daily Emis. Limit (lb/Day)	3.6	0.9	1.5	11.2	0.8
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	163.0	38.0	68.0	503.0	38.0
Q2:	163.0	39.0	68.0	503.0	38.0
Q3:	163.0	39.0	68.0	504.0	38.0
Q4:	164.0	39.0	68.0	504.0	38.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

ATTACHMENT III
Compliance Certification Form

**San Joaquin Valley
Unified Air Pollution Control District**

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

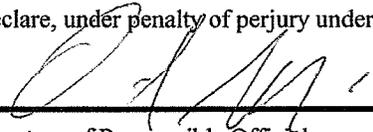
- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE AMENDMENT
 MINOR PERMIT MODIFICATION

COMPANY NAME: Wonderful Pistachios & Almonds	FACILITY ID: S-377
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name:	
3. Agent to the Owner:	

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

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

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



Signature of Responsible Official

November 24, 2015

Date

Dave Szefflin

Name of Responsible Official (please print)

Vice President of Operations

Title of Responsible Official (please print)

ATTACHMENT IV
Manufacturer's Information



PREDICTED BOILER EMISSION DATA

NATURAL GAS FIRING

BOILER MFG. AND MODEL	SUPERIOR MS8-4-1250-S250	
BURNER MFG. AND MODEL	ALZETA CSB 126R	
BOILER CAPACITY, LB/HR	10,350	
DESIGN PRESSURE, PSIG	250	
HEAT INPUT, MMBTUH	12.6	
FUEL FLOW, SCFH	12,595	
FLUE GAS OUTLET TEMP, DEG F	455	
FLUE GAS FLOW, LB/HR	18,140	
FLUE GAS SPECIFIC VOLUME, FT ³ /LB	22.5	
STACK OUTLET DIAMETER, IN	17.5	
STACK OUTLET FLOW AREA, FT ²	1.7	
STACK GAS EXIT FLOW, ACFM	6,801	
STACK GAS EXIT VELOCITY, FPM	4,072	
	PPMVD	#/MMBTU
NOx @ 3% O2	9	0.012
CO @ 3% O2	50	0.039
VOC @ 3% O2	10	0.004
PM10 @ 3% O2		0.010
EXCESS AIR, %	56	

NOTE: ABOVE PERFORMANCE IS BASED WITH NO STACK ECONOMIZER

DATE: 6/14/2013

B37



ULTRA-LOW NO_x BURNERS

ALZETA CSB™

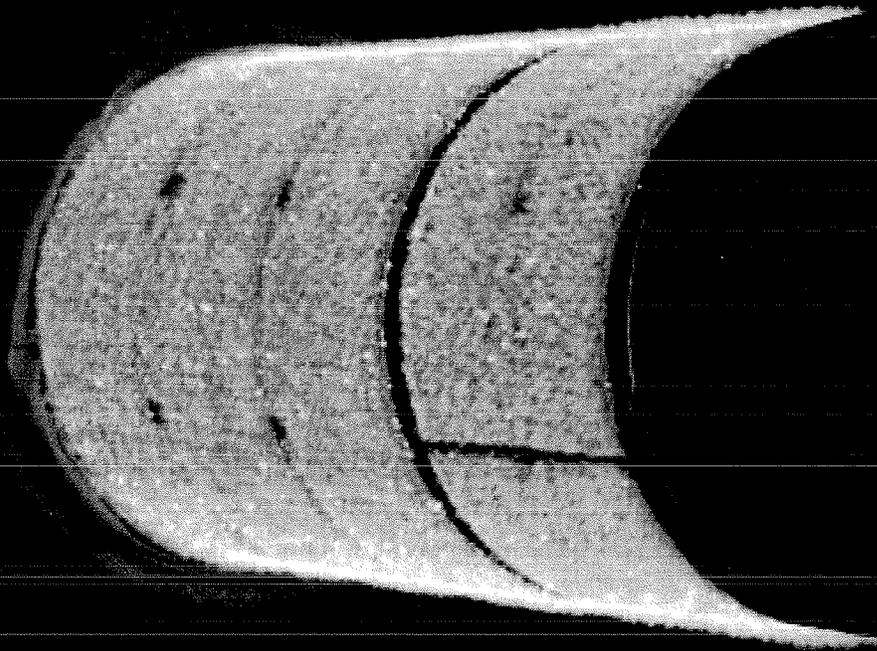
ULTRA-LOW NO_x

GAS BURNERS FOR

COMMERCIAL AND

INDUSTRIAL BOILERS

AND PROCESS HEATERS



Advanced Combustion Clean Air Solutions for Industry and Our Environment

ALZETA CSB™

ULTRA-LOW NO_x BURNERS FOR COMMERCIAL & INDUSTRIAL BOILERS AND PROCESS HEATERS



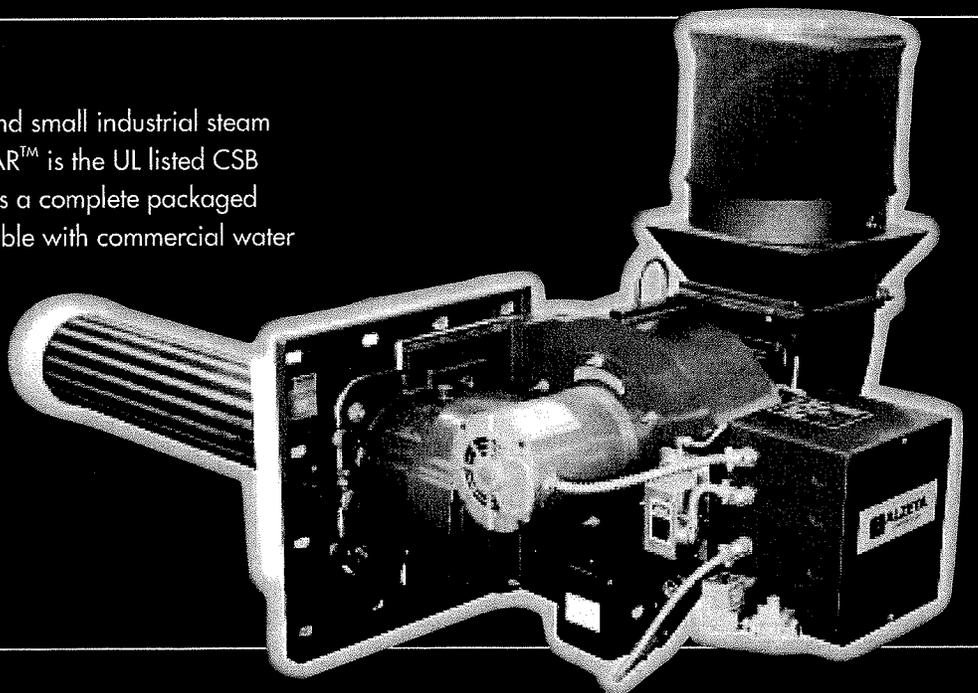
PREMIXED SURFACE-STABILIZED COMBUSTION

ALZETA CSB™ burners use patented fully-premixed surface-stabilized combustion technology to provide our customers with the simplest ultra-low NO_x solution in the industry. Premixing fuel and air assures complete combustion, with minimal generation of CO and unburned hydrocarbons. Surface stabilization guarantees reliable operation at the ultra-lean and high FGR conditions required to meet today's most stringent NO_x emissions levels. The rugged all metal construction of the CSB is ideal for use in firetube boilers, water tube boilers, and industrial process heaters.

CSB COMMERCIAL BURNER

CSB microSTAR™

For commercial heating and small industrial steam applications the CSB microSTAR™ is the UL listed CSB solution. The CSB microSTAR is a complete packaged burner solution that is compatible with commercial water tube boilers as well as small firetube boilers, oil heaters and hot-air systems. Burners span the capacity range of 2 MMBtu/hr to 14.7 MMBtu/hr firing natural gas or propane.



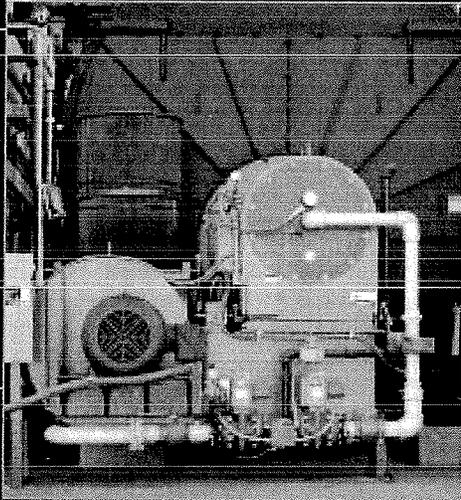
The ALZETA CSB provides:

- **Proven Performance** — Whether your application is a 2 MMBtu/hr hot water boiler, a 65 MMBtu/hr firetube boiler, or a 125 MMBtu/hr package watertube boiler, ALZETA provides a solution that has been proven in the field to provide reliable performance in a broad range of boiler and heater designs.
- **Guaranteed Emissions Compliance** — For ultra-low NO_x requirements of 12 ppm, 9 ppm or lower, ALZETA has a track record of successful compliance tests. CO and VOC emissions are also comfortably below regulatory limits. We guarantee a successful source test.
- **Superior Support and Service** — With a 20-year history of leading edge burner development, a staff of experienced engineers, and well trained service organizations covering areas of major sales activity, we provide around the clock support and service to our customers.



CSB INDUSTRIAL BURNER

For applications with capacities of 16.8 MMBtu/hr to 130 MMBtu/hr, the CSB industrial product provides single-digit NO_x emissions, simultaneously with ultra-low CO and unburned hydrocarbon emissions, in a broad range of industries including food processing, textiles, and chemicals. Regardless of application, the ALZETA CSB provides the end user with simple and reliable performance, cost effectively meeting all BACT emissions requirements. The CSB industrial burner has been successfully applied to:

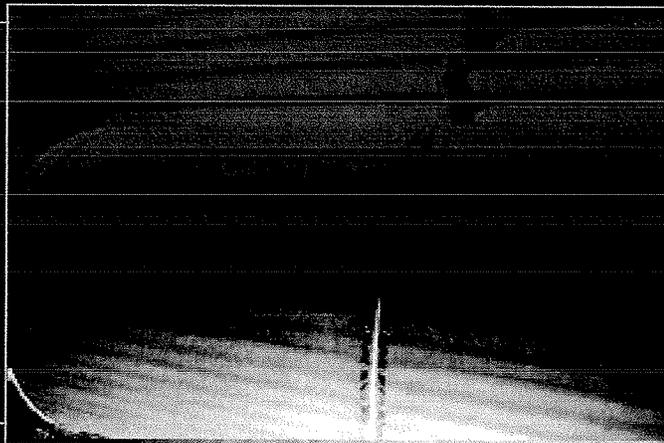
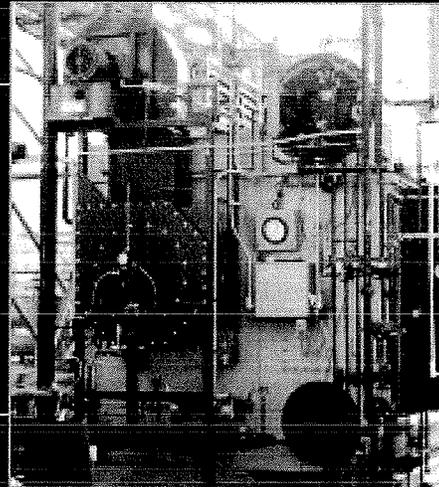


FIRETUBE BOILERS

The tight burner configuration and high volumetric heat release rate typical of firetube boilers is an ideal configuration for compact and distributed flame envelope of the ALZETA CSB. The CSB operates at single-digit emissions levels in firetube boilers from a number of major firetube boiler manufacturers, with boiler capacities ranging from 400 hp to over 1500 hp. Burner fired duty ranges from 16.8 MMBtu/hr to 70 MMBtu/hr.

PACKAGE WATERTUBE BOILERS

The CSB is a proven performer in package watertube boilers spanning the size range of 35,000 lb/hr to 150,000 lb/hr of steam, with burner fired duty ranging from 45 MMBtu/hr to 180 MMBtu/hr. The burner works well in all common package boiler configurations, reaching single-digit NO_x emissions levels in all sizes.



PROCESS HEATERS

Process applications including oil and process air heating benefit from the uniform flux and excellent flame stability of the CSB. Uniform flux is critical in sensitive-fluid heating applications, and the CSB is a proven performer in this application. Process air applications benefit from the stable operation of the CSB over a broad range of load conditions and process air temperatures.



CSB™ / CSB MICROSTAR™



ULTRA-LOW NO_x BURNERS

PERFORMANCE BENEFITS

- Ultra-low NO_x over complete product range
- Ultra-low CO and unburned hydrocarbon emissions
- Emissions levels meet all BACT requirements
- Simple design minimizes capital and startup costs
- Modular design minimizes maintenance costs

BASIC DESIGN FEATURES

- Fully premixed design
- Surface stabilization with porous burner surface
- Rugged all metal construction
- Industry standard flame safeguard and combustion controls
- Systems designed to meet UL, IRI, FM and/or NFPA.

TYPICAL APPLICATIONS

- Commercial hot water and low pressure steam boilers
- Commercial firetube and watertube boiler configurations
- Industrial steam in firetube boilers to 70 MMBtu/hr
- Industrial steam in package watertube boilers to 130 MMBtu/hr
- Temperature sensitive fluid heating
- Process air heating

OPTIONAL FEATURES

- High performance characterizable gas valves
- Custom windbox and fan layouts
- Parallel positioning and fully metered fuel-air ratio control
- Oxygen trim feedback control
- Flue gas recirculation

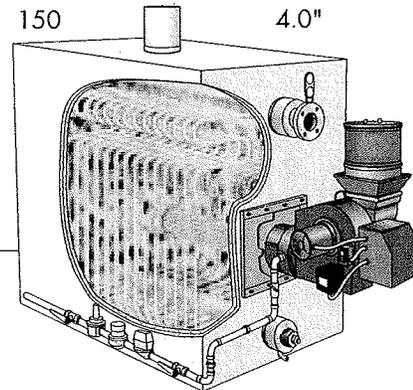
CAPACITY RANGES AND DIMENSIONS

MODEL NUMBER	CAPACITY (MMBTU/HR)	CAPACITY (BHP)	BLOWER MOTOR (HP)	GAS TRAIN SIZE
CSB microSTAR (commercial):				
CSB20 - CSB35	2.0 - 3.5	48 - 83	1 - 3	2.0"
CSB50 - CSB105	5.0 - 10.5	120 - 250	5 - 10	3.0"
CSB126 - CSB147	12.6 - 14.7	300 - 350	15	3.0"
CSB (industrial):				
CSB168	16.8	400	20	3.0"
CSB210	21.0	500	25	4.0"
CSB336	33.6	800	40	4.0"
CSB440	44.0	1050	50	4.0"
CSB680	68.0	1600	75	4.0"
CSB1000	100.0	2350	120	4.0"
CSB1300	130.0	3100	150	4.0"

UL listing to 10.5 MMBtu/hr (CSB microSTAR models CSB20 through CSB105)
 Capacities listed are based on +3" w.c. furnace pressure and 1,000' altitude.
 Other capacities available, contact ALZETA for more information.

INSTALLATION AND UTILITY GUIDELINES

- Natural gas: 1-2 psig commercial, 5-10 psig industrial.
- Alternate fuels: Vaporized and air-blended propane, for other gases consult factory.
- Electrical: 460V / 3ph / 60Hz typical



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3.0 INTRODUCTION

On July 13, 2004, World Environmental conducted a source emission test program on one boiler (SCAQMD Permit #: F65563) for Nationwide Boiler Inc. The boiler is owned and operated by Nationwide Boiler Inc. and is located in Fremont, CA.

The purpose of the test program was to evaluate the performance of the boiler for emissions of NO_x, O₂, and CO for compliance with SCAQMD Rule 1146 and applicable conditions.

The methodology for measuring NO_x, CO and O₂ concentrations was SCAQMD Test Method 100.1. Single 36-minute multi-point sampling test runs (6 points per traverse at 3 minutes per point) were performed on the boiler while firing natural gas at each load. Testing was performed at Low Fire, Mid Fire, and High Fire for the boiler. Exhaust gas flow rates were determined using fuel meter readings and applicable F-Factors (EPA Method 19).

Testing was performed by Mr. Keith Shannon, President and Mr. Jason Daluiski, Project Manager of World Environmental. Testing was coordinated by Ms. Holly Lepo of Nationwide Boiler Inc.

2.0 SUMMARY OF RESULTS

Facility: ████████ Containers Inc.
Date Tested: July 13, 2004
Unit: Portable Boiler (Permit No. F65563)
Project #: WER1409

B - 37

A. Portable Boiler (Permit #: F65563)

Emissions	Low Fire	Mid Fire	High Fire	Emission Limit
Fuel Type:	Natural Gas	Natural Gas	Natural Gas	
DSCFM:	413	1,813	2,866	
O ₂ %:	8.26	9.29	8.25	
NO _x ppm (drift corr.)	5.79	2.68	5.02	12 ppm @ 3% O ₂
ppm @ 3% O ₂	8.20	4.13	7.10	
lb/hr	0.02	0.04	0.10	
CO ppm (drift corr.)	<20.00*	<20.00*	<20.00*	50 ppm @ 3% O ₂
ppm @ 3% O ₂	<28.31	<30.83	<28.30	
lb/hr	<0.04	<0.16	<0.25	

* CO concentration was less than the quantifiable limit, 20% of full scale was used as the concentration measured. Testing for CO was performed at 0-100 ppm range, therefore 20 ppm was used as the default value.

ATTACHMENT V
Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-377-57-0

LEGAL OWNER OR OPERATOR: WONDERFUL PISTACHIOS & ALMONDS
MAILING ADDRESS: 13646 HWY 33
LOST HILLS, CA 93249

LOCATION: 3.5 MILES NORTH OF HWY 46 ON HWY 33
LOST HILLS, CA

EQUIPMENT DESCRIPTION:

12.6 MMBTU/HR SUPERIOR MODEL MS8-4-1250-S250 NATURAL GAS-FIRED BOILER WITH AN ALZETA CSB ULTRA LOW NOX BURNER, OR EQUIVALENT, SERVING AS TREU FOR S-377-34

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

Arnaud Marjolle, Director of Permit Services

S-377-57-0 : Dec 9 2015 7:42AM - EDGEHLR : Joint Inspection NOT Required

6. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This unit shall not be located at this stationary source for more than 180 days in any 12 month period. The time spent at a maintenance or storage facility is not considered time located at the stationary source. [District Rule 2201] Federally Enforceable Through Title V Permit
8. This unit shall only be used to temporarily replace an existing unit that is shut down for maintenance or repair, and may only be used in this capacity if it meets the criteria set forth for a TREU in Rule 2201, Sections 3.41.1 through 3.41.3. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The operator shall maintain records of the specific equipment that this unit replaces, and of the dates and location of its operation. Operator shall maintain a record of each individual period of time and of the total time that this unit is located at this stationary source. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
11. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
12. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
13. Unit shall be only fired on PUC-regulated natural gas. [District Rule 4305, 4306, and 4320 and 40 CFR § 60.42c(d)] Federally Enforceable Through Title V Permit
14. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 9 ppmv NO_x @ 3% O₂ or 0.012 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.005 lb-PM₁₀/MMBtu, 50 ppmv CO @ 3% O₂ or 0.037 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District NSR Rule and District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. This unit is subject to all alternate monitoring and related recordkeeping requirements as the unit that is being replaced. [District Rule 2201] Federally Enforceable Through Title V Permit
16. {2804} Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
17. 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 2520, 9.4.2, 1070, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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