



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



HEALTHY AIR LIVING™

SEP 16 2013

Rick Harker
Olam West Coast, Inc.
47641 W. Nees
Firebaugh, CA 93622

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: C-7748
Project Number: C-1131649

Dear Mr. Harker:

Enclosed for your review and comment is the District's analysis of Olam West Coast, Inc.'s application for an Authority to Construct for modifications to the existing vegetable dehydrating facility, at 47641 W. Nees, Firebaugh.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice period, the District intends to issue the Authority to Construct. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Derek Fukuda of Permit Services at (559) 230- 5917.

Sincerely,

for

David Warner
Director of Permit Services

DW:df

Enclosures

cc: Mike Tollstrup, CARB (w/ enclosure) via email

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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Bakersfield, CA 93308-9725
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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 Olam West Coast, Inc. for modifications to the existing vegetable dehydrating facility, at 47641 W. Nees, Firebaugh.

The analysis of the regulatory basis for this proposed action, Project #C-1131649, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and at any District office. For additional information, please contact the District at (559) 230-6000. Written comments on this project must be submitted by October 21, 2013 to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 1990 EAST GETTYSBURG AVENUE, FRESNO, CA 93726.**

San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
(Vegetable Dehydration Facility)

Facility Name:	Olam West Coast, Inc.	Date:	September 10, 2013
Mailing Address:	47641 W. Nees Firebaugh, CA 93622	Engineer:	Derek Fukuda
Contact Person:	Rick Harker	Lead Engineer:	Joven Refuerzo
Telephone:	(408) 846-3408		
E-Mail:	rick.harker@olamnet.com		
Application #(s):	C-7748-10-3, -11-3, -13-3, -14-3, and -16-1		
Project #:	C-1131649		
Deemed Complete:	May 24, 2013		

I. Proposal

Olam West Coast, Inc. is applying for Authority to Construct (ATC) permits for the modifications to three existing vegetable dehydrating lines (units -10, -11, and -13), an existing natural gas-fired boiler (unit -14), and an existing natural gas-fired IC engine cogeneration unit (unit -16). These units were permitted as Permits to Operate (PTOs) C-7748-10-2, -11-2, -13-2, -14-2, and -16-0 (see Appendix B); however unimplemented ATC's have been issued for these permit units and will act as the base permits for the modifications proposed on this project. The modifications proposed in this project are listed below:

- Increase the combined annual emissions limit on units C-7748-10, -11, -13, -14, and -16 from: 19,975 lb-NOx/year, 1,123 lb-SOx/year, 5,635 lb-PM10/year, 28,994 lb-CO/year, and 11,465 lb-VOC/year; to: 23,996 lb-NOx/year, 1,387 lb-SOx/year, 6,758 lb-PM10/year, 33,015 lb-CO/year, and 13,169 lb-VOC/year.

ATC's C-7748-10-5, -11-5, -13-5, -14-4, and -16-2 (see Appendix B) were issued to the facility for the increase in the daily combined material throughput limit on units -10, -11, and -13, and the increase in the annual PM₁₀ and CO SLC's on units -10, -11, -13, -14, and -16. ATCs C-7748-10-5, -11-5, -13-5, -14-4, and -16-2 will be used as the base permits for the ATC's being issued in this project; therefore the following permit condition will be placed on the ATCs issued in this project to ensure ATCs C-7748-10-5, -11-5, -13-5, -14-4, and -16-2 are implemented prior to or concurrent with the ATCs issued in this project.

- Authority to Construct (ATC) **N-7748-XX-X** shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201]

Background

The facility originally submitted an ATC application to increase the daily and annual throughput of the three dehydrating lines, and to increase the annual emissions Specific Limiting Condition (SLC) of the three dehydrating lines, a natural gas-fired boiler (unit -14) and a natural gas-fired IC engine (unit -16). These proposed modifications resulted in the facility's NO_x emissions exceeding the Major Source and Offset thresholds. Therefore, a 30 day NSR Public Notice for the project was required. The facility was informed of the required public noticing and decided that based on their production needs, they would need the increase in the daily material throughput sooner than the projected timeframe for the issuance of the final ATCs which included the 30 day public notice period. As a result, the facility proposed to split their original project into two projects. The first project (C-1131780) proposed to only increase the daily material throughput; therefore public noticing is not required. The second project (this project) proposed to increase the annual emissions limits, which requires a 30 day public notice. After the facility received their ATC's for project C-1131780, they submitted an additional ATC application (C-1132097) for additional modifications that did not trigger a public notice. These modifications included the increase in the annual material throughput of the three vegetable dehydrating lines, the increase in the CO SLC based on emissions from the ICE (unit -16), and the correction of the burner rating on one of the dehydrators.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
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 4702	Internal Combustion Engines (8/18/11)
Rule 4801	Sulfur Compounds (12/17/92)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)	
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines	

III. Project Location

The facility is located at 47641 W. Nees in Firebaugh, CA. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

Olam West Coast, Inc. operates a vegetable dehydration operation.

Vegetable Dehydration Operation Lines A, B, and D (Units -10, -11, and -13):

The plant has three, four stage Proctor dryers with 12.5' wide belts that are used for onions and garlic and a much smaller dryer that is currently configured for parsley or other leafy vegetables. Onions are washed and fed to the large dryers after going through a precision slicing process. They are fed onto the dryer belt at a uniform depth and initially in stage 1, at relatively high temperatures. As the onions pass through the drying process and into subsequent stages, the belt speed slows down, the onion bed depth increases, and the temperatures are reduced to get the product to desired finished moisture without burning. The dry crude product is then airlifted directly into the milling process. The first two stages of each dryer are heated with natural gas burners and the last two stages are heated by steam coils. The small parsley dryer is heated entirely with steam.

Cleaver Brooks Natural Gas-Fired Boiler (Unit -14):

The natural gas-fired boiler is used to create steam and hot water for the entire facility.

Natural Gas-Fired IC Engine Powering a Cogeneration System (Unit -16):

The natural gas-fired IC engine will power an electrical generator and also produce steam for use by the facility.

V. Equipment Listing

Pre-Project Equipment Description:

C-7748-10-5: 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE A) WITH ONE 54 MMBTU/HR MAXON MODEL SERIES A NATURAL GAS-FIRED BURNER SERVED BY TWO CYCLONES

C-7748-11-5: 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE B) WITH ONE 54 MMBTU/HR MAXON MODEL SERIES A NATURAL GAS-FIRED BURNER SERVED BY TWO CYCLONES

- C-7748-13-5:** 48.5 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE D) WITH TWO 20 MMBTU/HR MAXON MODEL NP1, THREE 8 MMBTU/HR MAXON MODEL NP1, AND ONE 5 MMBTU/HR NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES AND ASSOCIATED ONION SLICER EQUIPMENT
- C-7748-14-4:** 29.4 MMBTU/HR CLEAVER BROOKS MODEL CBI 700 NATURAL GAS-FIRED BOILER WITH A ERIB GIDEON MODEL ERIB 800 ULTRA LOW NOX BURNER AND O2 TRIM SYSTEM
- C-7748-16-2:** 1877 HP DEUTZ MODEL TBG620V16 NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A MIRATECH SCR SYSTEM, POWERING A 1350 KW COGENERATION SYSTEM

Authority to Construct Equipment Description:

- C-7748-10-3:** MODIFICATION OF 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE A) WITH ONE 54 MMBTU/HR MAXON MODEL SERIES A NATURAL GAS-FIRED BURNER SERVED BY TWO CYCLONES: INCREASE THE ANNUAL COMBINED EMISSIONS LIMITS
- C-7748-11-3:** MODIFICATION OF 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE B) WITH ONE 54 MMBTU/HR MAXON MODEL SERIES A NATURAL GAS-FIRED BURNER SERVED BY TWO CYCLONES: INCREASE THE ANNUAL COMBINED EMISSIONS LIMITS
- C-7748-13-3:** MODIFICATION OF 48.5 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE D) WITH TWO 20 MMBTU/HR MAXON MODEL NP1, THREE 8 MMBTU/HR MAXON MODEL NP1, AND ONE 5 MMBTU/HR NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES AND ASSOCIATED ONION SLICER EQUIPMENT: INCREASE THE ANNUAL COMBINED EMISSIONS LIMITS
- C-7748-14-3:** MODIFICATION OF 29.4 MMBTU/HR CLEAVER BROOKS MODEL CBI 700 NATURAL GAS-FIRED BOILER WITH A ERIB GIDEON MODEL ERIB 800 ULTRA LOW NOX BURNER AND O2 TRIM SYSTEM: INCREASE THE ANNUAL COMBINED EMISSIONS LIMITS
- C-7748-16-1:** MODIFICATION OF 1877 HP DEUTZ MODEL TBG620V16 NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A MIRATECH SCR SYSTEM, POWERING A 1350 KW COGENERATION SYSTEM: INCREASE THE ANNUAL COMBINED EMISSIONS LIMITS

Post Project Equipment Description:

- C-7748-10-3:** 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE A) WITH ONE 54 MMBTU/HR MAXON MODEL SERIES A NATURAL GAS-FIRED BURNER SERVED BY TWO CYCLONES
- C-7748-11-3:** 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE B) WITH ONE 54 MMBTU/HR MAXON MODEL SERIES A NATURAL GAS-FIRED BURNER SERVED BY TWO CYCLONES
- C-7748-13-3:** 48.5 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE D) WITH TWO 20 MMBTU/HR MAXON MODEL NP1, THREE 8 MMBTU/HR MAXON MODEL NP1, AND ONE 5 MMBTU/HR NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES AND ASSOCIATED ONION SLICER EQUIPMENT
- C-7748-14-3:** 29.4 MMBTU/HR CLEAVER BROOKS MODEL CBI 700 NATURAL GAS-FIRED BOILER WITH A ERIB GIDEON MODEL ERIB 800 ULTRA LOW NOX BURNER AND O2 TRIM SYSTEM
- C-7748-16-1:** 1877 HP DEUTZ MODEL TBG620V16 NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A MIRATECH SCR SYSTEM, POWERING A 1350 COGENERATION SYSTEM

VI. Emission Control Technology Evaluation

Emissions from natural gas-fired boiler and vegetable dehydrators include NO_x, CO, VOC, PM₁₀, and SO_x.

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.

The facility has the following emissions control systems installed on the natural gas-fired IC engine involved with this project. The emission control devices and their effect on gaseous fuel-fired IC engine emissions are detailed as follows:

- The IC engine is equipped with a Selective Catalytic Reduction (SCR) system, Positive Crankcase Ventilation (PCV) system, and air/fuel controllers.

- Selective Catalytic Reduction systems selectively reduce NO_x emissions by injecting a urea solution (NH₂CONH₂) into the exhaust gas stream upstream of a catalyst to form ammonia (NH₃). Nitrogen oxides, NH₃, and oxygen (O₂) react on the surface of the catalyst to form molecular nitrogen (N₂) and water (H₂O). SCR is capable of over 90 percent NO_x reduction.
- Ammonia emissions from the urea solution, called ammonia slip, may be a consideration when specifying an SCR system. The urea solution is stored on site and injected into the exhaust stream upstream of the catalyst.
- The PCV system reduces crankcase VOC and PM₁₀ emissions versus an uncontrolled crankcase vent.

VII. General Calculations

A. Assumptions

Units -10-3, -11-3, and -13-3 (Vegetable Dehydration Lines A, B, and D):

- The units are fired solely on PUC regulated natural gas.
- Natural Gas Heating Value: 1,000 Btu/scf (District Practice)
- F-Factor for Natural Gas: 8,578 dscf/MMBtu corrected to 60°F (40 CFR 60, Appendix B)
- The pre and post project combined annual product processed in the three dehydration lines shall not exceed 59,255 tons/year (existing permit).
- The pre and post-project combined daily product processed in the three dehydration lines shall not exceed 375 tons/day (existing permit).
- The pre-project combined annual potential emissions from the three dehydration lines, the natural gas-fired boiler, and the natural gas-fired IC engine shall not exceed 19,975 lb-NO_x/year, 1,123 lb-SO_x/year, 5,635 lb-PM₁₀/year, 28,994 lb-CO/year, and 11,465 lb-VOC/year (current permit).
- The post-project combined annual potential emissions from three dehydration lines, the natural gas-fired boiler, and the natural gas-fired IC engine shall not exceed 23,996 lb-NO_x/year, 1,387 lb-SO_x/year, 6,758 lb-PM₁₀/year, 33,015 lb-CO/year, and 13,169 lb-VOC/year (per applicant).

Unit -14-3 (Natural Gas-Fired Boiler):

- The unit is fired solely on PUC regulated natural gas.
- Natural Gas Heating Value: 1,000 Btu/scf (District Practice)
- F-Factor for Natural Gas: 8,578 dscf/MMBtu corrected to 60°F (40 CFR 60, Appendix B)
- The pre-project combined annual potential emissions from the three dehydration lines, the natural gas-fired boiler, and the natural gas-fired IC engine shall not exceed 19,975 lb-NO_x/year, 1,123 lb-SO_x/year, 5,635 lb-PM₁₀/year, 28,994 lb-CO/year, and 11,465 lb-VOC/year (current permit).

- The post-project combined annual potential emissions from three dehydration lines, the natural gas-fired boiler, and the natural gas-fired IC engine shall not exceed 23,996 lb-NO_x/year, 1,387 lb-SO_x/year, 6,758 lb-PM₁₀/year, 33,015 lb-CO/year, and 13,169 lb-VOC/year (per applicant).

Unit -16-1 (Natural Gas-Fired IC Engine Cogeneration System):

- The unit is fired solely on PUC regulated natural gas.
- Natural Gas Heating Value: 1,000 Btu/scf (District Practice)
- F-Factor for Natural Gas: 8,578 dscf/MMBtu corrected to 60°F (40 CFR 60, Appendix B)
- Sulfur content of PUC quality natural gas is 0.00285 lb-SO_x/MMBtu, taken from District Policy APR-1720.
- The engine is assumed to have a thermal efficiency of 30% (worst-case assumption used in the District calculator for ppmv to g/Bhp-hr conversion).
- Engine fuel consumption is 12,576 scf/hr (per applicant).
- Ammonia slip is 10 ppm @ 15% O₂.
- The daily emissions are based on 24 hours per day (per applicant).
- The IC engine will be limited to 180 days of operation per year (existing permit).
- The pre-project combined annual potential emissions from the three dehydration lines, the natural gas-fired boiler, and the natural gas-fired IC engine shall not exceed 19,975 lb-NO_x/year, 1,123 lb-SO_x/year, 5,635 lb-PM₁₀/year, 28,994 lb-CO/year, and 11,465 lb-VOC/year (current permit).
- The post-project combined annual potential emissions from three dehydration lines, the natural gas-fired boiler, and the natural gas-fired IC engine shall not exceed 23,996 lb-NO_x/year, 1,387 lb-SO_x/year, 6,758 lb-PM₁₀/year, 33,015 lb-CO/year, and 13,169 lb-VOC/year (per applicant).

B. Emission Factors

The applicant is not proposing to change any of the emission factors for the three natural gas-fired vegetable dehydrators, the natural gas-fired boiler, or the natural gas-fired IC engine. Therefore, the pre and post project emission factors will be the same for these units. The emission factors are shown in the tables below.

Units -10-3, -11-3, and -13-3 (Dehydrator Lines A, B, and D):

Pollutant	Emission Factors (EF)		Source
NO _x	0.06 lb-NO _x /MMBtu	5.25 ppmvd NO _x (@ 19%O ₂)	Current Permit
SO _x	0.00285 lb-SO _x /MMBtu		District Policy APR 1720
PM ₁₀	0.014 lb-PM ₁₀ /MMBtu	Combustion	Current Permit
	0.005 lb-PM ₁₀ /ton	Material Handling	Current Permit
CO	0.06 lb-CO/MMBtu	8.62 ppmvd CO (@ 19%O ₂)	Current Permit
VOC	0.026 lb-VOC/MMBtu		Current Permit

Unit -14-3 (Boiler):

Pollutant	Emission Factors (EF)		Source
NO _x	0.008 lb-NO _x /MMBtu	7 ppmvd NO _x (@ 3%O ₂)	Current Permit
SO _x	0.00285 lb-SO _x /MMBtu		District Policy APR 1720
PM ₁₀	0.014 lb-PM ₁₀ /MMBtu		Current Permit
CO	0.06 lb-CO/MMBtu	81.2 ppmvd CO (@ 3%O ₂)	Current Permit
VOC	0.026 lb-VOC/MMBtu		Current Permit

Unit -16-1 (IC Engine Cogeneration System):

Pollutant	Emission Factors (EF)		Source
NO _x	0.06 g/bhp-hr	5 ppmvd NO _x (@ 15%O ₂)	Current Permit
SO _x *	0.011 g/bhp-hr	--	Current Permit
PM ₁₀	0.02 g/bhp-hr	--	Current Permit
CO	0.6 g/bhp-hr	--	Current Permit
VOC	0.15 g/bhp-hr	--	Current Permit
NH ₃	--	10 ppm	Current Permit

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Units C-7748-10-5, -11-5, -13-5, -14-4, and -16-2:

Daily Emissions:

The pre project daily potential emissions from the dehydrators, boiler, and IC engine were taken from calculations performed in Projects C-1092836, C-1100957, C-1131780, and C-1132097. These values are shown in the table below.

Daily Pre-Project Potential to Emit (PE1)						
Permit Unit	NO _x (lb/day)	SO _x (lb/day)	PM ₁₀ (lb/day)	CO (lb/day)	VOC (lb/day)	NH ₃ (lb/day)
C-7748-10-5	77.8	3.7	20.0	77.8	33.7	0
C-7748-11-5	77.8	3.7	20.0	77.8	33.7	0
C-7748-13-5	69.8	3.3	18.2	69.8	30.3	0
C-7748-14-4	5.6	0.4	9.9	7.8	18.3	0
C-7748-16-2	5.9	1.1	2.0	59.6	14.9	4.1

Annual Emission:

The pre project combined annual emissions from the dehydrators, boiler, and IC engine was taken from the existing combined emission limit permit condition on permit units C-7748-10-5, -11-5, -13-5, -14-4, and -16-2, and is shown in the table below.

Annual Pre-Project Potential to Emit (PE1)						
Permit Unit	NO _x (lb/year)	SO _x (lb/year)	PM ₁₀ (lb/year)	CO (lb/year)	VOC (lb/year)	NH ₃ (lb/year)*
C-7748-10-5	19,975	1,123	5,635	28,994	11,465	741
C-7748-11-5						
C-7748-13-5						
C-7748-14-3						
C-7748-16-2						

* NH3 is only emitted from unit C-7748-16.

2. Post Project Potential to Emit (PE2)

Daily Emissions:

Since the facility is not proposing any modification that will affect the daily potential emissions from units C-7748-10, -11, -13, -14, or -16 in this project, the pre and post project daily potential to emit will be the same. Daily emissions are shown in the table below:

Daily Post-Project Potential to Emit (PE2)					
Permit Unit	NO _x (lb/day)	SO _x (lb/day)	PM ₁₀ (lb/day)	CO (lb/day)	VOC (lb/day)
C-7748-10-3	77.8	3.7	20.0	77.8	33.7
C-7748-11-3	77.8	3.7	20.0	77.8	33.7
C-7748-13-3	69.8	3.3	18.2	69.8	30.3
C-7748-14-3	5.6	0.4	9.9	7.8	18.3
C-7748-16-1	5.9	1.1	2.0	59.6	14.9

Annual Emissions:

The annual emissions from the units in this project are limited by a combined annual emissions limit. The applicant has proposed the following combined annual emissions limit for the units in this project.

Annual Post-Project Potential to Emit (PE2)						
Permit Unit	NO _x (lb/year)	SO _x (lb/year)	PM ₁₀ (lb/year)	CO (lb/year)	VOC (lb/year)	NH ₃ (lb/year)*
C-7748-10-3	23,996	1,387	6,758	33,015	13,169	741
C-7748-11-3						
C-7748-13-3						
C-7748-14-3						
C-7748-16-1						

* NH₃ is only emitted from unit C-7748-16.

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.

Pre-Project Stationary Source Potential to Emit [SSPE1] (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
ATC C-7748-1-3	0	0	1,209	0	0
ATC C-7748-2-2	0	0	3,830	0	0
C-7748-4-0	0	0	780	0	0
ATC C-7748-5-2	0	0	2,652	0	0
ATC C-7748-6-1					
ATC C-7748-7-1	0	0	260	0	0
C-7748-8-1	0	0	520	0	0
C-7748-9-0	0	0	50	0	0
ATC C-7748-10-5	19,975	1,123	5,635	28,994	11,465
ATC C-7748-11-5					
ATC C-7748-13-5					
ATC C-7748-14-4					
ATC C-7748-16-2					
C-7748-12-0	0	0	4	0	0
C-7748-17-0	0	0	19	0	0
Pre-Project SSPE	19,975	1,123	14,959	28,994	11,465

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.

Post-Project Stationary Source Potential to Emit [SSPE2] (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
ATC C-7748-1-3	0	0	1,209	0	0
ATC C-7748-2-2	0	0	3,830	0	0
C-7748-4-0	0	0	780	0	0
ATC C-7748-5-2	0	0	2,652	0	0
ATC C-7748-6-1					
ATC C-7748-7-1	0	0	260	0	0
C-7748-8-1	0	0	520	0	0
C-7748-9-0	0	0	50	0	0
C-7748-10-3 (project)	23,996	1,387	6,758	33,015	13,169
C-7748-11-3 (project)					
C-7748-13-3 (project)					
C-7748-14-3 (project)					
C-7748-16-1 (project)					
C-7748-12-0	0	0	4	0	0
C-7748-17-0	0	0	19	0	0
Post-Project SSPE	23,996	1,387	16,082	33,015	13,169

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	CO	VOC
SSPE1	19,975	1,123	14,959	28,994	11,465
SSPE2	23,996	1,387	16,082	33,015	13,169
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	Yes	No	No	No	No

As seen in the table above, the facility is not an existing Major Source for any pollutant; however, is becoming a Major Source for NO_x emissions 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)							
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀	CO _{2e}
Estimated Facility PE before Project Increase	12	7	1	17	8	8	19,413
PSD Major Source Thresholds	250	250	250	250	250	250	100,000
PSD Major Source ? (Y/N)	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 District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

Since the units being modified in this project are part of a SLC, the BE will be the combined emissions from all the units in the SLC. Furthermore, in order for BE to equal PE1, all units in this project will need to be either Highly-Utilized, Fully-Offset, or a Clean Emissions unit. If one of the units in this project is not Highly-Utilized, Fully-Offset, or a Clean Emissions unit, HAE from all the units in the SLC will be used to determine the BE.

a. BE NO_x

Unit Located at a Non-Major Source

As shown in Section VII.C.5 above, the facility is a major source for NO_x emissions.

Clean Emissions Unit, Located at a Major Source

Pursuant to Rule 2201, 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.

Units C-7748-10-3, -11-3, and -13-3 (Vegetable Dehydration Lines A, B, and D):

The three vegetable dehydrating operations in this project are subject to BACT Guideline 1.6.13 which does not list an AIP BACT requirement. The vegetable dehydration operations do meet the Technologically Feasible BACT requirement of 0.06 lb-NO_x/MMBtu. These units meet a requirement more stringent than AIP BACT, therefore they are Clean Emissions Units.

Unit C-7748-14-3 (Natural Gas-Fired Boiler):

The natural gas-fired boiler in this project was subject to, and meets the requirements of BACT Guideline 1.1.2 when it was permitted in 2009. Since the time the boiler was originally permitted, BACT Guideline 1.1.2 has been rescinded. However, since the boiler meets the AIP BACT requirements within 5 years of the submission of the application for this project, the boiler is a Clean Emissions Unit.

C-7748-16-1 (Natural Gas-Fired IC Engine):

The natural gas-fired IC engine in this project is subject to BACT Guideline 3.3.12 and currently meets a NO_x emissions limit lower than AIP BACT. Therefore, the IC engine is a Clean Emissions Unit.

Since all permit units in this project are Clean Emissions Units for NO_x, the BE is equal to PE1.

$$BE_{SLC} = PE1_{SLC} = 19,975 \text{ lb NO}_x/\text{year}$$

b. BE SO_x, PM₁₀, CO, and VOC

Unit Located at a Non-Major Source

As shown in Section VII.C.5 above, the facility is not a major source for SO_x, PM₁₀, CO, or VOC emissions. Therefore Baseline Emissions BE_{SLC} = PE1_{SLC}.

Pollutant	Baseline Emissions SLC (lb/year)
SO _x	1,123
PM ₁₀	5,635
CO	28,994
VOC	11,465

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."

Since this facility is not an existing major source for any of the pollutants addressed in this project, this project does not constitute an SB 288 major modification.

8. Federal Major Modification

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

Since this facility is not an existing Major Source for any pollutants, this project does not constitute a Federal Major Modification. Additionally, since the facility is not a major source for PM₁₀ (140,000 lb/year), it is not a major source for PM_{2.5} (200,000 lb/year).

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
- Greenhouse gases (GHG): CO₂, N₂O, CH₄, HFCs, PFCs, and SF₆

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).

In the case the facility is an existing PSD Major Source, the second step of the PSD evaluation is to determine if the project results in a PSD significant increase.

In the case the facility is NOT an existing PSD Major Source but is an existing source, the second step of the PSD evaluation is to determine if the project, by itself, would be a PSD major source.

In the case the facility is new source, the second step of the PSD evaluation is to determine if this new facility will become a new PSD major Source as a result of the project and if so, to determine which pollutant will result in a PSD significant increase.

Potential to Emit for New or Modified Emission Units vs PSD Major Source Thresholds

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

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: Potential to Emit (tons/year)							
	NO2	VOC	SO2	CO	PM	PM10	CO2e
Total PE from New and Modified Units	12	7	1	17	3	3	19,413
PSD Major Source threshold	250	250	250	250	250	250	100,000
New PSD Major Source?	N	N	N	N	N	N	N

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

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. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

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

*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.

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

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

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

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

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

$$\text{AIPE} = \text{PE2} - \text{HAPE}$$

Where,

AIPE = Adjusted Increase in Permitted Emissions, (lb/day)

PE2 = Post-Project Potential to Emit, (lb/day)

HAPE = Historically Adjusted Potential to Emit, (lb/day)

$$\text{HAPE} = \text{PE1} \times (\text{EF2}/\text{EF1})$$

Where,

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

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

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

$$\text{AIPE} = \text{PE2} - (\text{PE1} * (\text{EF2} / \text{EF1}))$$

The facility is proposing to increase the annual combined emissions limits for the units in this project. However, the increase in the annual combined emissions limits can possibly allow the emissions units in this project to operate on days which the units could not operate due to the previous annual combined emissions limits. Therefore, AIPE calculations will be performed to determine if the units trigger BACT for the new days they could be operating on.

Unit C-7748-10-3:

Adjusted Increase in Permitted Emissions (AIPE)					
Pollutant	PE2 (lb/day)	PE1 (lb/day)	EF2/EF1	AIPE	BACT Triggered?
NO _x	77.8	0	1	77.8	Yes
SO _x	3.7	0	1	3.7	Yes
PM ₁₀ combustion	18.1	0	1	18.1	Yes
PM ₁₀ Mat. Handling	1.9	0	1	1.9	No
CO	77.8	0	1	77.8	No*
VOC	33.7	0	1	33.7	Yes

* SSPE2 is less than 200,000 pounds per year of CO.

Unit C-7748-11-3:

Adjusted Increase in Permitted Emissions (AIPE)					
Pollutant	PE2 (lb/day)	PE1 (lb/day)	EF2/EF1	AIPE	BACT Triggered?
NO _x	77.8	0	1	77.8	Yes
SO _x	3.7	0	1	3.7	Yes
PM ₁₀ combustion	18.1	0	1	18.1	Yes
PM ₁₀ Mat. Handling	1.9	0	1	1.9	No
CO	77.8	0	1	77.8	No*
VOC	33.7	0	1	33.7	Yes

* SSPE2 is less than 200,000 pounds per year of CO.

Unit C-7748-13-3:

Adjusted Increase in Permitted Emissions (AIPE)					
Pollutant	PE2 (lb/day)	PE1 (lb/day)	EF2/EF1	AIPE	BACT Triggered?
NO _x	69.8	0	1	69.8	Yes
SO _x	3.3	0	1	3.3	Yes
PM ₁₀ combustion	16.3	0	1	16.3	Yes
PM ₁₀ Mat. Handling	1.9	0	1	1.9	No
CO	69.8	0	1	69.8	No*
VOC	30.3	0	1	30.3	Yes

* SSPE2 is less than 200,000 pounds per year of CO.

Unit C-7748-14-3:

Adjusted Increase in Permitted Emissions (AIPE)					
Pollutant	PE2 (lb/day)	PE1 (lb/day)	EF2/EF1	AIPE	BACT Triggered?
NO _x	5.6	0	1	5.6	Yes
SO _x	0.4	0	1	0.4	No
PM ₁₀	9.9	0	1	9.9	Yes
CO	7.8	0	1	7.8	No*
VOC	18.3	0	1	18.3	Yes

* SSPE2 is less than 200,000 pounds per year of CO.

Unit C-7748-16-1:

Adjusted Increase in Permitted Emissions (AIPE)					
Pollutant	PE2 (lb/day)	PE1 (lb/day)	EF2/EF1	AIPE	BACT Triggered?
NO _x	5.9	0	1	5.9	Yes
SO _x	1.1	0	1	1.1	No
PM ₁₀	2.0	0	1	2.0	Yes
CO	59.6	0	1	59.6	No*
VOC	14.9	0	1	14.9	Yes

* SSPE2 is less than 200,000 pounds per year of CO.

BACT is triggered for all pollutants with an AIPE greater than 2 lb/day except for CO emissions since the SSPE is less than 200,000 lb/year.

d. SB 288/Federal Major Modification

As discussed in Section VII.C.7 above, this project does not constitute an SB 288 and/or Federal Major Modification for NO_x emissions. Therefore BACT is not triggered for any pollutant for SB288 purposes.

2. BACT Guideline

Units -10-3, -11-3, and -13-3 (Vegetable Dehydration Lines A, B, and D):

BACT Guideline 1.6.13, applies to vegetable dehydrating line A, B, and D. [Dehydrator – Vegetable, Continuous Process] (See Appendix C)

Unit -14-3 (Natural Gas-Fired Boiler):

The District adopted District Rule 4320 on October 16, 2008. The NO_x emission limit requirements in District Rule 4320 are lower than the limits contained within BACT Guideline 1.1.2 which has since been rescinded; therefore a project specific BACT analysis will be performed to determine BACT for this project. District Rule 4320 limits natural gas boilers with heat input ratings greater than 20 MMBtu/hr to 7 ppmv @ 3% O₂. Since this emission limit is required by the rule, it will be considered the Achieved in Practice control technology for the BACT analysis. District Rule 4320 also contains an enhanced schedule option that allows applicants additional time to meet the requirements of the rule. The enhanced schedule NO_x emission limit requirement is 5 ppmv @ 3% O₂. Since this is an enhanced option in the rule, it will be considered the Technologically Feasible control technology for the BACT analysis. (See Appendix C)

Unit -16-1 (Natural Gas-Fired IC Engine Cogeneration System):

BACT Guideline 3.3.12, applies to the natural gas-fired IC engine. [Fossil fuel Fired IC Engine > 50 hp] (See Appendix C)

3. Top-Down BACT Analysis

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

Units -10-3, -11-3, and -13-3 (Vegetable Dehydration Lines A, B, and D):

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

- NO_x: Natural Gas Fired Burner (<0.06 lb/MMBtu)
- PM₁₀: PUC-quality natural gas fuel and vents ducted to a cyclone (>90% efficiency) on product transfer points.
- VOC: Use of PUC-quality natural gas fuel

Unit -14-3 (Natural Gas-Fired Boiler):

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

- NO_x: 5 ppmvd @ 3% O₂ (0.006 lb/MMBtu)
- SO_x: PUC regulated natural gas fuel
- PM₁₀: PUC regulated natural gas fuel
- CO: 200 ppmvd @ 3% O₂ (0.147 lb/MMBtu)
- VOC: Natural gas fuel with LPG backup

Unit -16-1 (Natural Gas-Fired IC Engine Cogeneration System):

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

- NO_x: NO_x emissions of 5 ppmv @15% O₂
- VOC: VOC emissions of 0.15 g/bhp-hr

B. Offsets

1. Offset Applicability

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

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

Offset Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE2	23,996	1,387	16,082	33,015	13,169
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	Yes	No	No	No	No

2. Quantity of Offsets Required

As seen above, the SSPE2 is greater than the offset thresholds for NO_x only. Therefore offset calculations will be required for this project.

The quantity of offsets in pounds per year for NO_x is calculated as follows for sources with an SSPE1 less than the offset threshold levels before implementing the project being evaluated.

$$\text{Offsets Required (lb/year)} = [(\text{SSPE2} - \text{ROT} + \text{ICCE}) \times \text{DOR}]$$

- Where,
- SSPE2 = Post Project Stationary Source Potential to Emit
- ROT = Respective Offset Threshold, for the respective pollutant
- ICCE = Increase in Cargo Carrier Emissions
- DOR = Distance Offset Ratio, determined pursuant to Section 4.8

- SSPE2 (NO_x) = 23,996 lb/year
- Offset threshold (NO_x) = 20,000 lb/year
- ICCE = 0 lb/year

Assuming an offset ratio of 1.5:1, the amount of NO_x ERCs that need to be withdrawn is:

$$\begin{aligned} \text{Offsets Required (lb/year)} &= [(23,996 - 20,000 + 0) \times 1.5] \\ &= 3,996 \times 1.5 \\ &= 5,994 \text{ lb NO}_x\text{/year} \end{aligned}$$

Calculating the appropriate quarterly emissions to be offset is as follows:

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
1,498	1,498	1,499	1,499

The applicant has stated that the facility plans to use ERC certificates C-959-2 and C-1006-2 to offset the increases in NO_x emissions associated with this project. The above certificates have available quarterly NO_x credits as follows:

	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
ERC #C-959-2	0	0	0	2,122
ERC #C-1006-2	1,188	1,163	1,138	1,137

Project NO_x offset requirements

Per Rule 2201 Section 4.13.8, Actual Emission Reductions (i.e. ERCs) that occurred from April through November, inclusive, may be used to offset increases in NO_x or VOC during any period of the year. ERC certificate C-959-2 only contains emissions reductions in the 4th quarter. Based on Section 4.13.8, the emissions reductions banked from October and November can be used to offset emissions increases in NO_x during any period of the year. The following calculation will determine the amount of emissions reductions from ERC certificate C-959-2 that were banked in October and November.

ERC certificate was C-959-2 was issued as a result of ERC banking project C-1082935. This project states the baseline period for the emissions reductions were years 2006 and 2007.

Total Historical Fuel Usage (project C-1082935):

October 13, 2006 to February 11, 2007 = **222,955 gallons LPG**

October 7, 2007 to December 13, 2007 = **113,932 gallons LPG**

Total Historical Operating Days (project C-1082935):

October 13, 2006 to February 11, 2007 = **121 days**

October 7, 2007 to December 13, 2007 = **67 days**

Percentage of Operating Days in Each Month:

Percentage of October and November days in 2006 = 48/121 = **39.7%**

Percentage of October and November days in 2007 = 54/67 = **80.6%**

2006/2007 Average Percentage of October and November days = **60.1%**

NO_x emissions from October – November:

Total NO_x Emissions Banked from October and November
 = (2,122 lb-NO_x 4th qtr) x (0.601)
 = **1,275 lb-NO_x (October – November)**

NO_x emissions from December:

Total NO_x Emissions Banked from December
 = 2,122 lb-NO_x – 1,275.3 lb-NO_x
 = **847 lb-NO_x (December)**

Based on the calculations above, the amount of offsets from ERC certificate C-959-2 that can be used in other quarters is 1,275 lb-NO_x.

	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
NO _x Emissions to be offset: (at a 1.5:1 DOR):	1,498	1,498	1,499	1,499
Available ERCs from certificate C-1006-2	-1,188	-1,163	-1,138	-1,137
Available Dec. ERCs from certificate C-959-2	0	0	0	847
Available Oct./Nov ERCs from certificate C-959-2	0	0	0	1,275
Oct./Nov. ERCs applied to 1 st qtr. ERC C-959-2:	-310	0	0	0
Oct./Nov. ERCs applied to 2 nd qtr. ERC C-959-2:	0	-335	0	0
Oct./Nov. ERCs applied to 4 th qtr. ERC C-959-2:	0	0	-361	0
Remaining ERCs from certificate C-959-2:	0	0	0	754
Remaining NO _x emissions to be offset (at a 1.5:1 DOR):	0	0	0	0

As seen above, the facility has sufficient credits to fully offset the quarterly NO_x emissions increases associated with this project.

Proposed Rule 2201 (offset) Conditions:

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender NO_x emission reduction credits for the following quantity of emissions: 1st quarter – 1,498 lb, 2nd quarter – 1,498 lb, 3rd quarter – 1,499 lb, and fourth quarter – 1,499 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERCs specified below. [District Rule 2201]
- ERC Certificate Numbers C-959-2 and C-1006-2 (or a certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

C. Public Notification

1. Applicability

Public noticing is required for:

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

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

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in VII.C.7, this project does not constitute an SB 288 or Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is not required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. There are no new emissions units associated with this project. Therefore public noticing is not required for this project for PE > 100 lb/day.

c. 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 Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO _x	19,975	23,996	20,000 lb/year	Yes
SO _x	1,123	1,387	54,750 lb/year	No
PM ₁₀	14,959	16,082	29,200 lb/year	No
CO	28,994	33,015	200,000 lb/year	No
VOC	11,465	13,169	20,000 lb/year	No

As detailed above, offset thresholds were surpassed for NO_x with this project; therefore public noticing is required for offset purposes.

d. SSIPE > 20,000 lb/year

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

SSIPE Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	23,996	19,975	4,021	20,000 lb/year	No
SO _x	1,387	1,123	264	20,000 lb/year	No
PM ₁₀	16,082	14,959	1,123	20,000 lb/year	No
CO	33,015	28,994	4,021	20,000 lb/year	No
VOC	13,169	11,465	1,704	20,000 lb/year	No

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

2. Public Notice Action

As discussed above, public noticing is required for this project for NO_x emissions exceeding the Offset threshold. Therefore, 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 ATCs for this project.

D. Daily Emission Limits (DELs)

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

Proposed Rule 2201 (DEL) Conditions:

Units -10-3, -11-3, and -13-3 (Vegetable Dehydration Lines A, B, and D):

- Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.25 ppmvd NO_x @ 19% O₂ or 0.06 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.014 lb-PM₁₀/MMBtu, 8.62 ppmvd CO @ 19% O₂ or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201 and 4309]
- PM₁₀ emissions from the handling of dehydrated material not exceed 0.005 lb-PM₁₀/ton material processed. [District Rule 2201]
- The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 23,996 lb-NO_x/year, 1,387 lb-SO_x/year, 6,758 lb-PM₁₀/year, 33,015 lb-CO/year, and 13,169 lb-VOC/year. [District Rules 2201 and 4102]
- The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201]
- The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year. [District Rule 2201]

Unit -14-3 (Natural Gas-Fired Boiler):

- Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NO_x @ 3% O₂ or 0.008 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.014 lb-PM₁₀/MMBtu, 81.2 ppmvd CO @ 3% O₂ or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]
- The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 23,996 lb-NO_x/year, 1,387 lb-SO_x/year, 6,758 lb-PM₁₀/year, 33,015 lb-CO/year, and 13,169 lb-VOC/year. [District Rules 2201 and 4102]

Unit -16-1 (Natural Gas-Fired IC Engine Cogeneration System):

- The IC engine shall not exceed more that 180 days/year of operation. [District Rule 2201]
- Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NO_x @ 15% O₂ (equivalent to 0.06 g-NO_x/hp-hr), 0.011 g-SO_x/hp-hr, 0.02 g-PM₁₀/hp-hr, 71 ppmvd CO @ 15% O₂ (equivalent to 0.6 g-CO/hp-hr), or 25 ppmvd VOC @ 15% O₂ (equivalent to 0.15 g-VOC/hp-hr). [District Rules 2201 and 4702]
- The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂. [District Rules 2201 and 4102]
- The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 23,996 lb-NO_x/year, 1,387 lb-SO_x/year, 6,758 lb-PM₁₀/year, 33,015 lb-CO/year, and 13,169 lb-VOC/year. [District Rules 2201 and 4102]

E. Compliance Assurance

1. Source Testing

Units -10-3, -11-3, and -13-3 (Vegetable Dehydration Lines A, B, and D):

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

Unit -14-3 (Natural Gas-Fired Boiler):

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

Unit -16-1 (Natural Gas-Fired IC Engine Cogeneration System):

Per District Rule 4702, Section 6.3, the owner of any engine subject to the emission limits in Section 5.1 shall demonstrate compliance with applicable limits... at least once every 24 months, in accordance with the test methods in Section 6.4. However, District Policy APR 1705 states that "if the most stringent emission limitation is associated with a rule or regulation that does not contain a source testing frequency (i.e. Rule 2201), then a testing frequency that can assure compliance with the most stringent limit(s) as well as the less stringent permitted emission limitations must be developed." The policy

further states that units equipped with a catalyst must be tested for NO_x, VOC, and CO upon initial start-up and annually thereafter. Therefore, since the most stringent limitation associated with this IC engine is related to BACT (i.e. Rule 2201), the District will include in the permit condition, the requirement to source test the engine at least once every 12 months.

2. Monitoring

Units -10-3, -11-3, and -13-3 (Vegetable Dehydration Lines A, B, and D):

No monitoring is required to demonstrate compliance with Rule 2201.

Unit -14-3 (Natural Gas-Fired Boiler):

As required by District Rules 4305, 4306 and 4320, the units are subject to monitoring requirements. Monitoring requirements, in accordance with District Rules will be discussed in the compliance review section of this evaluation.

Unit -16-1 (Natural Gas-Fired IC Engine Cogeneration System):

As required by District Rule 4702, the units are subject to monitoring requirements. Monitoring requirements, in accordance with District Rules will be discussed in the compliance review section of this evaluation.

3. Recordkeeping

Units -10-3, -11-3, and -13-3 (Vegetable Dehydration Lines A, B, and D):

- Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]
- Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201]
- Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201]
- Permittee shall maintain records of the combined annual NO_x, SO_x, PM₁₀, CO, and VOC emissions of units -10, -11,-13, -14, and -16. [District Rule 2201]
- Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309]

- All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309]

Unit -14-3 (Natural Gas-Fired Boiler):

As required by District Rules 4305, 4306 and 4320, the units are subject to recordkeeping requirements. Recordkeeping requirements, in accordance with District Rules will be discussed in the compliance review of this evaluation.

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

- Permittee shall maintain annual records of the amount of fuel used in the natural gas-fired boiler. [District Rule 2201]
- Permittee shall maintain records of the combined annual NO_x, SO_x, PM₁₀, CO, and VOC emissions of units -10, -11,-13, -14, and -16. [District Rule 2201]
- 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]

Unit -16-1 (Natural Gas-Fired IC Engine Cogeneration System):

As required by District Rule 4702, the unit is subject to recordkeeping requirements. Recordkeeping requirements, in accordance with District Rules will be discussed in the compliance review of this evaluation.

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

- Permittee shall maintain annual records of the days the natural gas-fired IC engine is operated. [District Rule 2201]
- Permittee shall maintain records of the combined annual NO_x, SO_x, PM₁₀, CO, and VOC emissions of units -10, -11,-13, -14, and -16. [District Rule 2201]
- All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4702]

4. Reporting

Units -10-3, -11-3, and -13-3 (Vegetable Dehydration Lines A, B, and D):

No reporting is required to demonstrate compliance with Rule 2201.

Unit -14-3 (Natural Gas-Fired Boiler):

No reporting is required to demonstrate compliance with Rule 2201.

Unit -16-1 (Natural Gas-Fired IC Engine Cogeneration System):

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

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 D 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 the state's PM₁₀ as well as federal and state PM_{2.5} thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM₁₀ and PM_{2.5}.

Rule 2520 Federally Mandated Operating Permits

As discussed above, this facility is a major source. Pursuant to Rule 2520 and as required by permit condition, the facility will have up to 12 months from the date of ATC issuance to either submit a Title V Application or comply with District Rule 2530 *Federally Enforceable Potential to Emit*. The following condition will be added to the permit to ensure compliance with the requirements of this rule:

- Permittee shall submit an application to comply with SJVUAPCD District Rule 2520 – Federally Mandated Operating Permits within 12 months of implementing ATC C-7748-10-3, -11-3, -13-3, -14-3, or -16-1. [District Rule 2520]

Rule 4001 New Source Performance Standards (NSPS)

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

Only unit C-7748-14 is subject to the requirements of this rule.

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 40 CFR Part 60, Subpart Dc applies to Small Industrial-Commercial-Industrial Steam Generators between 10 MMBtu/hr and 100 MMBtu/hr (post-6/9/89 construction, modification or, reconstruction). Subpart Dc has standards for SO_x and PM₁₀. The 29.4 MMBtu/hr boiler is subject to Subpart Dc requirements.

60.42c – Standards for Sulfur Dioxide

Since coal is not combusted by the boiler in this project, the requirements of this section are not applicable.

60.43c – Standards for Particulate Matter

The boiler is not fired on coal, combusts mixtures of coal with other fuels, combusts wood, combusts mixture of wood with other fuels, or oil; therefore it will not be subject to the requirements of this section.

60.44c – Compliance and Performance Tests Methods and Procedures for Sulfur Dioxide.

Since the boiler in this project is not subject to the sulfur dioxide requirements of this subpart, no testing to show compliance is required. Therefore, the requirements of this section are not applicable to the boiler in this project.

60.45c – Compliance and Performance Test Methods and Procedures for Particulate Matter

Since the boiler in this project is not subject to the particulate matter requirements of this subpart, no testing to show compliance is required. Therefore, the requirements of this section are not applicable to the boiler in this project.

60.46c – Emission Monitoring for Sulfur Dioxide

Since the boiler in this project is not subject to the sulfur dioxide requirements of this subpart, no monitoring is required. Therefore, the requirements of this section are not applicable to the boiler in this project.

60.47c – Emission Monitoring for Particulate Matter

Since the boiler in this project is not subject to the particulate matter requirements of this subpart, no monitoring is required. Therefore, the requirements of this section are not applicable to the boiler in this project.

60.48c – Reporting and Recordingkeeping 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 units are 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 60.48 c (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. The following conditions will be added to the permit to assure compliance with this section.

- A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. [District Rules 2201 and 40 CFR 60.48 (c)(g)]
- Permittee shall maintain daily records of the type and quantity of fuel combusted by the boiler. [District Rules 2201 and 40 CFR 60.48 (c)(g)]

Section 60.48 c (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.

Therefore, compliance with the requirements of this rule is expected.

40 CFR 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

Only unit C-7748-16 is subject to the requirements of this rule.

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 40 CFR Part 60, Subpart JJJJ applies to spark-ignited internal combustion engines.

Section 60.4230(a) states the provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (5) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

Section 60.4230(a)(4) states that the provisions of this subpart are applicable to owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

- (i) on or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);
- (ii) on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;
- (iii) on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or
- (iv) on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

The engine in this project commenced construction after June 12, 2006; however since it is rated at 1,877 bhp, it does not fit into any of the categories in this section.

Section 60.4230(a)(5) states that the provisions of this subpart are applicable to owners and operators of stationary SI ICE that are modified or reconstructed after June 12, 2006, and any person that modifies or reconstructs any stationary SI ICE after June 12, 2006. The facility is not modifying or reconstructing this engine in this project. This section is not applicable.

Section 60.4230(a)(6) states that the provisions of Section 60.4236 of this subpart are applicable to all owners and operators of stationary SI ICE that commence construction after June 12, 2006. Since the engine in this project commenced construction after June 12, 2006, the engine in this project will be subject to Section 60.4236 of this subpart.

Section 60.4236 states that after July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in § 60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in § 60.4233 may not be installed after January 1, 2010. Therefore, the engine in this project is required to meet the applicable requirements in Section 60.4233 of this subpart.

Section 60.4233(e) state that owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified. The applicable emissions requirements from Table 1 are shown below:

Table 1 - NO_x , CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP					
Engine type and fuel	Maximum engine power	Manufacture date	Emission standards (ppmvd at 15% O ₂)		
			NO _x	CO	VOC
Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG (except lean burn 500≤HP<1,350)	HP≥500	7/1/2007	160	540	86

Emissions from the engine in this project meet the required emissions standards. The following condition will be placed on the permit to ensure compliance:

- Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NO_x @ 15% O₂ (equivalent to 0.06 g-NO_x/hp-hr), 0.011 g-SO_x/hp-hr, 0.02 g-PM₁₀/hp-hr, 71 ppmvd CO @ 15% O₂ (equivalent to 0.6 g-CO/hp-hr), or 25 ppmvd VOC @ 15% O₂ (equivalent to 0.15 g-VOC/hp-hr). [District Rules 2201 and 4702, and 40 CFR 60 Subpart JJJJ]

Therefore, compliance with the requirements of this rule is expected.

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

40 CFR Part 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutant (NESHAP) for Stationary Reciprocating Internal Combustion Engines

Only unit C-7748-16 is subject to the requirements of this rule.

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63.

The requirements of 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutant for Stationary Reciprocating Internal Combustion Engines) are applicable to existing IC engines (installed before June 12, 2006). Since the engine in this project was installed after June 12, 2006, the requirements of this subpart are not applicable to the engine in this project.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). As the IC engine is fired solely on natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. Also, based on past inspections of the facility continued compliance is expected. The following condition will be added to all the permits in this project to ensure compliance with this rule.

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

Rule 4102 Nuisance

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

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

California Health & Safety Code 41700 (Health Risk Assessment)

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

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 D), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project. All emissions increase proposed in this project are assumed to be from the three vegetable dehydrators (unit -10, -11, and -13) since the existing boiler (unit -14) and IC engine cogeneration system (unit -16) were previously permitted at their maximum operating capacity.

The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
C-7748-10-3	0.09 per million	No
C-7748-11-3	0.09 per million	No
C-7748-13-3	0.09 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 D of this report, the emissions increases for this project was determined to be less than significant.

The following permit conditions will be added to the permits to ensure hum health risks will not exceed District allowable levels:

- 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]
- The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 23,996 lb-NOx/year, 1,387 lb-SOx/year, 6,758 lb-PM₁₀/year, 33,015 lb-CO/year, and 13,169 lb-VOC/year. [District Rules 2201 and 4102]

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.

Unit -10-3 (Vegetable Dehydration Line A):

Dehydrating Operation:

F-Factor for NG:	8,578 dscf/MMBtu at 60 °F
PM ₁₀ Emission Factor:	0.014 lb-PM ₁₀ /MMBtu
Percentage of PM as PM ₁₀ in Exhaust:	100%
Exhaust Oxygen (O ₂) Concentration:	3%
Excess Air Correction to F Factor =	$\frac{20.9}{(20.9 - 3)} = 1.17$

$$GL = \left(\frac{0.014 \text{ lb-PM}}{\text{MMBtu}} \times \frac{7,000 \text{ grain}}{\text{lb-PM}} \right) / \left(\frac{8,578 \text{ ft}^3}{\text{MMBtu}} \times 1.17 \right)$$

$$GL = 0.0098 \text{ grain/dscf} < 0.1 \text{ grain/dscf}$$

Material Handling Operation:

$$\text{PM Conc. (gr/scf)} = \frac{(\text{PM emission rate}) \times (7,000 \text{ gr/lb})}{(\text{Air flow rate}) \times (60 \text{ min/hr}) \times (24 \text{ hr/day})}$$

PM₁₀ emission rate = 1.9 lb/day. Assuming 100% of PM is PM₁₀
 Exhaust Gas Flow = 12,500 scfm

$$\text{PM Conc. (gr/scf)} = \frac{(1.9 \text{ lb/day}) \times (7,000 \text{ gr/lb})}{(12,500 \text{ ft}^3/\text{min}) \times (60 \text{ min/hr}) \times (24 \text{ hr/day})} = \mathbf{0.0007 \text{ gr/scf}}$$

The following condition will be added to the permit to assure compliance with this rule.

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

Unit -11-3 (Vegetable Dehydration Line B):

Dehydrating Operation:

F-Factor for NG:	8,578 dscf/MMBtu at 60 °F
PM ₁₀ Emission Factor:	0.014 lb-PM ₁₀ /MMBtu
Percentage of PM as PM ₁₀ in Exhaust:	100%
Exhaust Oxygen (O ₂) Concentration:	3%
Excess Air Correction to F Factor =	$\frac{20.9}{(20.9 - 3)} = 1.17$

$$GL = \left(\frac{0.014 \text{ lb-PM}}{\text{MMBtu}} \times \frac{7,000 \text{ grain}}{\text{lb-PM}} \right) / \left(\frac{8,578 \text{ ft}^3}{\text{MMBtu}} \times 1.17 \right)$$

$$GL = 0.0098 \text{ grain/dscf} < 0.1 \text{ grain/dscf}$$

Material Handling Operation:

$$\text{PM Conc. (gr/scf)} = \frac{(\text{PM emission rate}) \times (7,000 \text{ gr/lb})}{(\text{Air flow rate}) \times (60 \text{ min/hr}) \times (24 \text{ hr/day})}$$

PM₁₀ emission rate = 1.9 lb/day. Assuming 100% of PM is PM₁₀
 Exhaust Gas Flow = 12,500 scfm

$$\text{PM Conc. (gr/scf)} = \frac{(1.9 \text{ lb/day}) \times (7,000 \text{ gr/lb})}{(12,500 \text{ ft}^3/\text{min}) \times (60 \text{ min/hr}) \times (24 \text{ hr/day})} = \mathbf{0.0007 \text{ gr/scf}}$$

The following condition will be added to the permit to assure compliance with this rule.

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

Unit -13-3 (Vegetable Dehydration Line D):

Dehydrating Operation:

F-Factor for NG:	8,578 dscf/MMBtu at 60 °F
PM ₁₀ Emission Factor:	0.014 lb-PM ₁₀ /MMBtu
Percentage of PM as PM ₁₀ in Exhaust:	100%
Exhaust Oxygen (O ₂) Concentration:	3%
Excess Air Correction to F Factor =	$\frac{20.9}{(20.9 - 3)} = 1.17$

$$GL = \left(\frac{0.014 \text{ lb-PM}}{\text{MMBtu}} \times \frac{7,000 \text{ grain}}{\text{lb-PM}} \right) / \left(\frac{8,578 \text{ ft}^3}{\text{MMBtu}} \times 1.17 \right)$$

$$GL = 0.0098 \text{ grain/dscf} < 0.1 \text{ grain/dscf}$$

Material Handling Operation:

$$\text{PM Conc. (gr/scf)} = \frac{(\text{PM emission rate}) \times (7,000 \text{ gr/lb})}{(\text{Air flow rate}) \times (60 \text{ min/hr}) \times (24 \text{ hr/day})}$$

PM₁₀ emission rate = 1.9 lb/day. Assuming 100% of PM is PM₁₀
 Exhaust Gas Flow = 12,500 scfm

$$\text{PM Conc. (gr/scf)} = \frac{(1.9 \text{ lb/day}) \times (7,000 \text{ gr/lb})}{(12,500 \text{ ft}^3/\text{min}) \times (60 \text{ min/hr}) \times (24 \text{ hr/day})} = \mathbf{0.0007 \text{ gr/scf}}$$

The following condition will be added to the permit to assure compliance with this rule.

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

Unit -14-3 (Natural Gas-Fired Boiler):

F-Factor for NG:	8,578 dscf/MMBtu at 60 °F
PM ₁₀ Emission Factor:	0.014 lb-PM ₁₀ /MMBtu
Percentage of PM as PM ₁₀ in Exhaust:	100%
Exhaust Oxygen (O ₂) Concentration:	3%
Excess Air Correction to F Factor =	$\frac{20.9}{(20.9 - 3)} = 1.17$

$$GL = \left(\frac{0.014 \text{ lb-PM}}{\text{MMBtu}} \times \frac{7,000 \text{ grain}}{\text{lb-PM}} \right) / \left(\frac{8,578 \text{ ft}^3}{\text{MMBtu}} \times 1.17 \right)$$

$$GL = 0.0098 \text{ grain/dscf} < 0.1 \text{ grain/dscf}$$

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

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

Unit -16-1 (Natural Gas-Fired IC Engine Cogeneration System):

F-Factor for NG: 8,578 dscf/MMBtu at 60 °F
 PM10 Emission Factor: 0.02 g-PM₁₀/bhp-hr

$$0.02 \frac{\text{g-PM}_{10}}{\text{bhp-hr}} \times \frac{1 \text{ g-PM}}{0.96 \text{ g-PM}_{10}} \times \frac{1 \text{ bhp-hr}}{2,542.5 \text{ Btu}} \times \frac{10^6 \text{ Btu}}{8,578 \text{ dscf}} \times \frac{0.35 \text{ Btu}_{out}}{1 \text{ Btu}_{in}} \times \frac{15.43 \text{ grain}}{\text{g}} = 0.005 \frac{\text{grain-PM}}{\text{dscf}}$$

Since 0.005 grain-PM/dscf is ≤ to 0.1 grain per dscf, compliance with Rule 4201 is expected.

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

District Rule 4301 Limits			
Pollutant	NO₂	Total PM	SO₂
ATC #C-7748-10-3 (lb/hr)	3.2	0.8	0.2
ATC #C-7748-11-3 (lb/hr)	3.2	0.8	0.2
ATC #C-7748-13-3 (lb/hr)	2.9	0.8	0.1
ATC #C-7748-14-3 (lb/hr)	0.2	0.4	0.02
Rule Limit (lb/hr)	140	10	200

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

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

Only unit C-7748-14 is subject to the requirements of this rule.

Pursuant to District Rules 4305 and 4306, Section 6.3.1, and 4320, Section 6.3.2.1, the boiler is not required to be tuned because it follows a District approved Alternate Monitoring scheme where the applicable emission limits are periodically monitored. Therefore, the boiler is not subject to this rule.

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

Only unit C-7748-14 is subject to the requirements of this rule.

The unit is natural gas-fired with a maximum heat input of 29.4 MMBtu/hr. Pursuant to Section 2.0 of District Rule 4305, the unit is subject to District Rule 4305, *Boilers, Steam Generators and Process Heaters – Phase 2*.

In addition, the unit is also subject to District Rule 4306, *Boilers, Steam Generators and Process Heaters – Phase 3*.

Since emissions limits of District Rule 4306 and all other requirements are equivalent or more stringent than District Rule 4305 requirements, compliance with District Rule 4306 requirements will satisfy requirements of District Rule 4305.

Conclusion

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

Only unit C-7748-14 is subject to the requirements of this rule.

The unit is natural gas-fired with a maximum heat input of 29.4 MMBtu/hr. Pursuant to Section 2.0 of District Rule 4306, the unit is subject to District Rule 4306, *Boilers, Steam Generators and Process Heaters – Phase 3*.

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

Since 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.

Conclusion

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

Rule 4309 Dryers, Dehydrators, and Ovens

Only units C-7748-10, -11, and -13 are subject to the requirements of this rule.

The purpose of this rule is to limit emissions of oxides of nitrogen (NO_x) and carbon monoxide (CO) from dryers, dehydrators, and ovens. This rule applies to any dryer, dehydrator, or oven that is fired on gaseous fuel, liquid fuel, or is fired on gaseous and liquid fuel sequentially, and the total rated heat input for the unit is 5.0 million British thermal units per hour (5.0 MMBtu/hr) or greater. Since the dehydrator being modified in this project has a heat input rating greater than 5.0 MMBtu, this dehydrator is subject to the requirements of this rule.

Section 3.9 defines as dehydrator as a device that drives free water from products like fruits, vegetables, and nuts, at an accelerated rate without damage to the product. According to this definition, the unit in this project is classified as a dehydrator.

Section 5.1 states that dehydrators shall be fired exclusively on PUC quality natural gas, except during periods of PUC quality natural gas curtailment. The following condition will be added to the permit to assure compliance with the requirements of this section.

- The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]

Section 5.1.1 states that all dehydrators shall be operated and maintained according to manufacturer's specifications or APCO-approved alternative procedures. The following condition will be added to the permit to assure compliance with the requirements of this section.

- This dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrators manufacturer or APCO-approved alternative procedures. [District Rule 4309]

Section 5.1.2 states that operation and maintenance records and manufacturer's specifications/APCO-approved alternative procedures shall be maintained in accordance with Section 6.1.3. Conditions demonstrating compliance with this section will be discussed in the Section 6.1.3 compliance discussion below.

Section 5.4.2 states that operators of a dehydrator shall maintain records that demonstrate, to the satisfaction of the APCO, ARB, and US EPA that the dehydrator is:

- Fired exclusively on PUC quality natural gas, except during PUC quality natural gas curtailment, and
- Properly operated and maintained according to manufacturer's specifications or APCO-approved alternative procedures.

Conditions demonstrating compliance with this section will be discussed in the Section 6.1.3 compliance discussion below.

Section 6.1.3 states that the operator of a dehydrator shall maintain the following records:

- Records that show the dehydrator is fired exclusively on PUC quality natural gas, except during PUC quality natural gas curtailment.
- Operation and maintenance records that demonstrate operation of the dehydrator within the limits of the manufacturer's specification and maintenance according to manufacturer's recommendation or APCO-approved alternative procedures.
- Operation records shall be maintained on a daily basis when the dehydrator is operating on that day.

- The operator shall keep maintenance records that verify that maintenance was performed in accordance with manufacturer's specifications or APCO-approved alternative procedures.

The following conditions will be added to the permit to assure compliance with the requirements of this section.

- Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]
- Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309]

Section 6.1.3.3 states that a copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. The following condition will be added to the permit to assure compliance with the requirements of this section.

- A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 4309]

Section 7.4 states that an operator of a dehydrator subject to this rule shall be in compliance with this rule by July 1, 2006. Since the dehydrator in this project has meet the all the requirements of District Rule 4309, this dehydrator is in compliance with the requirements of this section.

Conclusion

Therefore, compliance with District Rule 4309 requirements is expected and no further discussion is required.

District Rule 4320 Advance Emission Reduction Options for Boilers, Steam Generators and Process Heaters Greater than 5 MMBtu/hr

Only unit C-7748-14 is subject to the requirements of this rule.

The unit is natural gas-fired with a maximum heat input of 29.4 MMBtu/hr. Pursuant to Section 2.0 of District Rule 4320, the unit is subject to District Rule 4320.

Section 5.2, NO_x and CO Emissions Limits

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

With a maximum heat input of 29.4 MMBtu/hr, the applicable emission limit category is listed in Section 5.2, Table 1, Category B, from District Rule 4320.

Rule 4306 Emissions Limits		
Category	Operated on gaseous fuel	
	NO _x Limit	CO Limit
B. Units with a rated heat input > 20.0 MMBtu/hr, except for Categories C through G	7 ppmv or 0.008 lb/MMBtu	400 ppmv

The compliance deadline for meeting the NO_x limit is July 1, 2010.

For the unit:

the proposed NO_x emission factor is 7 ppmvd @ 3% O₂ (0.008 lb/MMBtu), and the proposed CO emission factor is 81.2 ppmvd @ 3% O₂ (0.06 lb/MMBtu)

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

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

Section 5.3, Annual Fee Calculation

Annual Fees are required if the unit will not be meeting the emission limits in Section 5.2 of this rule. Since the proposed boiler will meet the emissions limits of Section 5.2, the annual fee requirements are not applicable.

Section 5.4, Particulate Matter Control Requirements

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

1. Fire the boiler exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases;

2. Limit fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic 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;

The facility has proposed that the boiler be fired exclusively on PUC-quality natural gas. Therefore, this requirement has been satisfied. The following condition will be added to the permit to ensure compliance with this section.

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

Section 5.5, Low Use

The unit annual heat input will exceed the 1.8 billion Btu heat input per calendar year criteria limit addressed by this section. Since the unit is not subject to Section 5.5, the requirements of this section do not apply to the unit.

Section 5.6, Startup and Shutdown Provisions

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

According to boiler manufacturers, low NO_x burners will achieve their rated emissions within one to two minutes of initial startup and do not require a special shutdown procedure. Because of the short duration before achieving the rated emission factor following startup, this unit will be subject to the applicable emission limits of Section 5.2.

Section 5.7, Monitoring Provisions

Section 5.7.1 requires that permit units subject to District Rule 4320, Section 5.2 emissions limits shall either install and maintain Continuous Emission Monitoring (CEM) equipment for NO_x, CO and O₂, or install and maintain APCO-approved alternate monitoring.

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. The following conditions will be listed on permit in order to ensure compliance with the requirements of the proposed alternate monitoring plan:

- 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 it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320]
- 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]
- 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]
- 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]

Since the unit is not subject to the requirements listed in Section 5.5.1 or 5.5.2, it is not subject to Section 5.7.2 and 5.7.3 requirements.

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

Section 5.7.6 outlines requirements for monitoring SO_x emissions. Since this unit is fired solely on PUC-Quality natural gas, SO_x emission monitoring is not required.

Section 5.8, Compliance Determination

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

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

Section 5.8.2 requires that all emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. Therefore, the following condition will be listed on the permit as follows:

- All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320]

Section 5.8.4 requires that for emissions monitoring using a portable NO_x analyzer as part of an APCO approved Alternate Emissions Monitoring System, emission readings shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15-consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15-consecutive-minute period.

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

- For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320]

Section 6.1, Recordkeeping

Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.5 shall be maintained for five calendar years and shall be made available to the APCO upon request. Failure to maintain records or information contained in the records that demonstrate noncompliance with the applicable requirements of this rule shall constitute a violation of this rule.

A condition will be listed on the permit as follows:

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

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

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

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. The facility has not proposed the use of startup and shutdown provisions, thus, the requirements of this section do not apply to the unit.

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

Section 6.2, Test Methods

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

Pollutant	Units	Test Method Required
NO _x	ppmv	EPA Method 7E or ARB Method 100
NO _x	lb/MMBtu	EPA Method 19
CO	ppmv	EPA Method 10 or ARB Method 100
Stack Gas O ₂	%	EPA Method 3 or 3A, or ARB Method 100
Stack Gas Velocities	ft/min	EPA Method 2
Stack Gas Moisture Content	%	EPA Method 4

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

- {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]
- NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320]
- CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320]
- Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320]

Section 6.3, Compliance Testing

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

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

- Source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320]
- {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

Section 6.4, Emission Control Plan (ECP)

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

The proposed modified unit will be in compliance with the emissions limits listed in table 1, Section 5.2 of this rule and with periodic monitoring and source testing requirements. Therefore, this current application for the new proposed unit satisfies the requirements of the Emission Control Plan, as listed in Section 6.4 of District Rule 4320. No further discussion is required.

Section 7.0, Compliance Schedule

Section 7.0 indicates that an operator of boilers must be in compliance with both the ATC deadline and compliance deadlines listed in Table 1 of Section 5.2.

The unit will be in compliance with the emissions limits listed in table 1, Section 5.2 of this rule, and periodic monitoring and source testing as required by District Rule 4320. Therefore, requirements of the compliance schedule, as listed in Section 7.1 of District Rule 4320, are satisfied. No further discussion is required.

Conclusion

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

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

Only unit C-7748-14 is subject to the requirements of this rule.

This rule applies to boilers, steam generators, and process heaters at NO_x Major Sources that are not located west of Interstate 5 in Fresno, Kings, or Kern counties. The facility in this project is not a NO_x Major Source; therefore, the provisions of this rule do not apply.

District Rule 4702 Internal Combustion Engines – Phase 2

Only unit C-7748-16 is subject to the requirements of this rule.

The purpose of this rule is to limit the emissions of nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC) from spark-ignited internal combustion engines.

This rule applies to any spark-ignited internal combustion engine with a rated brake horsepower greater than 50 horsepower and that requires a Permit-to-Operate (PTO).

Section 5.1 requires that the owner of an internal combustion engine shall not operate it in such a manner that results in emissions exceeding the limits in the Engine Emission Limits table below for the appropriate engine type, according to the compliance schedule listed in Section 7.0. An engine shall be restricted by permit condition to emissions limits, in ppmv (corrected to 15% oxygen on a dry basis), that meet or exceed the following applicable emission limits pursuant to Section 5.1 or Section 8.2.

Rule 4702 Emission Limits			
Engine Type	NO_x Emission Limit (ppmv @ 15% O₂, dry)	CO Emission Limit (ppmv @ 15% O₂, dry)	VOC Emission Limit (ppmv @ 15% O₂, dry)
2. Lean Burn			
b. All other engines	65 ppmv or 90% reduction	2,000 ppmv	750 ppmv

The engine involved with this project is a 4 stroke lean-burn IC engine. Therefore, the IC engine involved with this project will need to meet the emissions limits of 65 ppmvd NO_x, 2,000 ppmvd CO, and 750 ppmvd VOC (all measured @ 15% O₂).

For the unit:

the proposed NO_x emission factor is 5 ppmvd @ 15% O₂ (0.06 g/bhp-hr),
the proposed CO emission factor is 71 @ 15% O₂ (0.6 g/bhp-hr), and
the proposed VOC emission factor is 25 ppmvd @ 15% O₂ (0.15 g/bhp-hr)

Therefore, compliance with Section 5.2 of District Rule 4702 is expected.

Section 5.2 requires that all continuous emission monitoring systems (CEMS) emissions measurements shall be averaged over a period of 15 consecutive minutes. Any 15-consecutive minute block average CEMS measurement exceeding the applicable emission limits of this rule shall constitute a violation of this rule. The IC engine involved with this project does not have CEMS installed; therefore this section of the Rule is not applicable.

Section 5.6 requires that the owner of an engine (excluding those engines subject to Section 4.2 or Section 4.3 unless otherwise specified) subject to the requirements of this rule meet the following requirements:

For each engine with a rated brake horsepower of 1,000 hp or greater and which is permitted to operate more than 2,000 hours per calendar year, or with an external emission control device, shall either install, operate, and maintain continuous monitoring equipment for NO_x, CO, and oxygen, as identified in Rule 1080 (Stack Monitoring), or install, operate, and maintain APCO-approved alternate monitoring. The monitoring system may be a continuous emissions monitoring system (CEMS), a parametric emissions monitoring system (PEMS), or an alternative monitoring system approved by the APCO. APCO-approved alternate monitoring shall consist of one or more of the following:

- Periodic NO_x and CO emission concentrations,
- Engine exhaust oxygen concentration,
- Air-to-fuel ratio,
- Flow rate of reducing agents added to engine exhaust,
- Catalyst inlet and exhaust temperature,
- Catalyst inlet and exhaust oxygen concentration,
- Other operational characteristics.

The applicant has chosen to meet this section of the Rule by proposing a pre-approved alternate emissions monitoring plan that specifies that the permittee perform periodic NO_x, CO, and O₂ emissions concentrations as specified in District Policy SSP-1810, dated 4/29/04. Therefore, the following condition will be placed on the permits to assure compliance with this section.

- The permittee shall monitor and record the stack concentration of NO_x, CO, O₂, and NH₃ at least once every month (in which a source test is not performed). NO_x, CO, and O₂ concentrations shall be performed using a portable emission monitor that meets District specifications. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4102 and 4702]

Section 5.6.6 requires that for each engine, including an engine subject to Section 4.2, install and operate a nonresettable elapsed operating time meter. The owner or operator shall maintain these required meters in proper operating condition. The applicant has indicated that the engine involved with this project is equipped with a nonresettable elapsed operating time meter. Therefore, the following condition will be placed on the permit to assure compliance with this section.

- {3201} The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702]

Section 5.6.7 requires that for each engine, the permittee shall implement the Inspection and Monitoring (I&M) plan submitted to and approved by the APCO pursuant to Section 6.5. The applicant has submitted an I&M program and the implementation of this plan will be explained in detail in the section that covers Section 6.5 of this Rule.

Section 5.6.8 requires that for each engine, collect data through the I&M plan in a form approved by the APCO. The facility's current I&M program has been approved by the APCO, therefore compliance with this section is assured.

Section 5.6.9 requires that each engine, use a portable NO_x analyzer to take NO_x emission readings to verify compliance with the emission requirements of Section 5.1 or Section 8.2 during each calendar quarter in which a source test is not performed. All emission readings shall be taken with the engine 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. All NO_x emissions readings shall be reported to the APCO in a manner approved by the APCO. NO_x emission readings taken pursuant to this section shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive minute sample reading or by taking at least five (5) readings evenly spaced out over the 15 consecutive-minute period. Therefore, the following condition will be placed on the permit to assure compliance with this section.

- 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 Rule 4702]

Section 6.1 requires that the owner of an engine subject to the requirements of this rule shall submit to the APCO an emission control plan of all actions to be taken to satisfy the emission

requirements of Section 5.1 and the compliance schedules of Section 7.0. Such emission control plan shall contain a list with the following for each permitted engine:

- Permit-to-Operate number
- Engine manufacturer
- Model designation
- Rated brake horsepower
- Type of fuel and type of ignition
- Combustion type: rich-burn or lean-burn
- Total hours of operation in the previous one-year period, including typical daily operating schedule
- Fuel consumption (cubic feet for gas or gallons for liquid) for the previous one-year period
- Stack modifications to facilitate continuous in-stack monitoring and to facilitate source testing
- Type of control to be applied, including in-stack monitoring specifications
- Applicable emission limits
- Documentation showing existing emissions of NO_x, VOC, and CO, and
- Date that the engine will be in full compliance with Rule 4702.

Section 6.1.2 requires that the emission control plan shall identify the type of emission control device or technique to be applied to each engine and a construction/removal schedule, or shall provide support documentation sufficient to demonstrate that the engine is in compliance with the emission requirements of this rule.

The applicant has submitted all the required information for Section 6.1 in the application for the IC engine involved with this project.

Section 6.2 requires that except for engines subject to Section 4.0, the owner of an engine subject to the requirements of this rule shall maintain an engine operating log to demonstrate compliance with this rule. This information shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request. The engine operating log shall include, on a monthly basis, the following information:

- Total hours of operation,
- Type and quantity (cubic feet of gas or gallons of liquid) of fuel used,
- Maintenance or modifications performed,
- Monitoring data,
- Compliance source test results, and
- Any other information necessary to demonstrate compliance with this rule.

The following condition will be placed on the permit to ensure compliance with this section.

- The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]

Section 6.2.2 requires that the data collected pursuant to the requirements of Section 5.6 shall be maintained for at least five years, shall be readily available, and made available to the APCO upon request. Therefore, the following previously proposed condition will be placed on the permit to ensure compliance with this section.

- 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 Rule 4702]

Section 6.3 requires that the owner of an engine subject to the emission limits in Section 5.1 or the requirements of Section 8.2, shall:

Demonstrate compliance with applicable limits by the applicable date specified in Section 7.6 and at least once every 24 months thereafter, in accordance with the test methods in Section 6.4.

Conduct emissions source testing with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. For emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply. If two (2) of three (3) runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC shall be reported as methane. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15 percent oxygen. For engines that comply with a percent reduction limit in Table 1, the percent reduction of NO_x emissions shall also be reported.

In addition to other information, the source test protocol shall describe which critical parameters will be measured and how the appropriate range for these parameters shall be established. The range for these parameters shall be incorporated into the I&M plan.

Therefore, the following conditions will be placed on the permit to ensure compliance:

- NO_x, CO, VOC, and NH₃ emissions shall be measured (source tested) not less than once every 12 months. [District Rules 2201 and 4702]

- Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702]

In addition, the following condition will be listed on the permit to ensure compliance:

- 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. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702]

Section 6.4 requires that the compliance with the requirements of Section 5.0 shall be determined in accordance with the following test procedures or any other method approved by EPA and the APCO:

- Oxides of nitrogen - EPA Method 7E, or ARB Method 100.
- Carbon monoxide - EPA Method 10, or ARB Method 100.
- Stack gas oxygen - EPA Method 3 or 3A, or ARB Method 100.
- Volatile organic compounds - EPA Method 25A or 25B, or ARB Method 100.
- Operating horsepower determination - any method approved by EPA and the APCO.

Therefore, the following condition will be listed on the permits to ensure compliance:

- The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702]

Section 6.5 requires that the owner of an engine subject to the emission limits in Section 5.1 or the requirements of Section 8.2, shall submit to the APCO for approval, an I&M plan that specifies all actions to be taken to satisfy the following requirements and the requirements of Section 5.6. The actions to be identified in the I&M plan shall include, but are not limited to, the following:

Section 6.5.2 specifies procedures requiring the owner or operator to establish ranges for control equipment parameters, engine operating parameters, and engine exhaust oxygen concentrations that source testing has shown result in pollutant concentrations within the rule limits.

Section 6.5.3 specifies procedures for monthly inspections as approved by the APCO. The applicable control equipment parameters and engine operating parameters will be inspected and monitored monthly in conformance with a regular inspection schedule listed in the I&M plan. The applicant has proposed that the alternate monitoring program will

ensure compliance with Sections 6.5.2 and 6.5.3 of the Rule. Therefore, the following previously proposed condition will be placed on the permits to ensure compliance with this section.

- 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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]

The following condition will be added to assure monthly monitoring of NH₃ emissions are performed.

- The permittee shall monitor and record the stack concentration of NH₃ at least once every month in which a source test is not performed. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within five days of restarting the unit unless monitoring has been performed within the last quarter. [District Rule 4102]

Section 6.5.4 specifies procedures for the corrective actions on the noncompliant parameter(s) that the owner or operator will take when an engine is found to be operating outside the acceptable range for control equipment parameters, engine operating parameters, and engine exhaust NO_x, CO, VOC, or oxygen concentrations.

Section 6.5.5 specifies procedures for the owner or operator to notify the APCO when an engine is found to be operating outside the acceptable range for control equipment parameters, engine operating parameters, and engine exhaust NO_x, CO, VOC, or oxygen concentrations.

The applicant has proposed that the alternate monitoring program will ensure compliance with these two sections of the Rule. Therefore, the following condition will be place on the permit to ensure compliance with this section.

- If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours 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 4102 and 4702]

Section 6.5.6 specifies procedures for preventive and corrective maintenance performed for the purpose of maintaining an engine in proper operating condition. The applicant has proposed that the engine will be operated and maintained per the manufacturer's specifications. Therefore, the following condition will be placed on the permit to ensure compliance with this section.

- {3202} This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702]

Section 6.5.7 specifies procedures and a schedule for using a portable NO_x analyzer to take NO_x emission readings pursuant to Section 5.6.9. The applicant has proposed that the alternate monitoring program will ensure compliance with this Section of the Rule. Therefore, the following condition will be placed on the permit to ensure compliance with this section.

- 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 Rule 4702]

Section 6.5.8 specifies procedures for collecting and recording required data and other information in a form approved by the APCO including, but not limited to, data collected through the I&M plan and the monitoring systems described in Sections 5.6.1 and 5.6.2. Data collected through the I&M plan shall have retrieval capabilities as approved by the APCO. The applicant has proposed that the alternate monitoring program will ensure

compliance with this Section of the Rule. Therefore, the following condition will be placed on the permit to ensure compliance with this section.

- The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% 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 4102 and 4702]

Section 6.5.9 specifies procedures for revising the I&M plan. The I&M plan shall be updated to reflect any change in operation. The I&M plan shall be updated prior to any planned change in operation. An engine owner that changes significant I&M plan elements must notify the District no later than seven days after the change and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M plan shall be recorded in the engine operating log. For new engines and modifications to existing engines, the I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit-to-Operate. The owner of an engine may request a change to the I&M plan at any time. The applicant has indicated that they will modify their I&M plan per this section of the Rule. Therefore, the following condition will be placed on the permits to ensure compliance with this section.

- The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]

Section 7.1 requires that the owner of an engine which becomes subject to the emission limits of this rule through loss of exemption shall not operate the subject engine, except as required for obtaining a new or modified Permit-to-Operate for the engine, until the owner demonstrates full compliance with the requirements of this rule.

The engine involved with project is currently subject to this Rule; therefore this section is not applicable.

Section 7.6 requires that the owner of an engine subject to the requirements of this rule shall not operate the engine unless the owner demonstrates and maintains the engine in compliance with the applicable requirements of this rule by the indicated dates:

Rule 4702 Emission Limit Compliance Schedule	
Engine Type	Compliance Date
a. 25% or more of the total number of engines at a stationary source on June 1, 2005	6/1/05
b. 62.5% or more of the total number of engines at a stationary source on June 1, 2006	6/1/06
c. 100% of the total number of engines at a stationary source on June 1, 2007	6/1/07

Section 7.7 requires that unless otherwise specified, the owner of an engine subject to the requirements of this rule shall be in full compliance with this rule by the applicable compliance date pursuant to Section 7.6.

The engine involved in this project and located at this facility is currently in compliance with the requirements of District Rule 4702. Therefore, this section does not apply to the engine in this project.

Section 8.0 allows that an owner may comply with the NO_x emission requirements of Section 5.1 for a group of engines by meeting the requirements in this Rule. An owner that is subject to the requirements below shall also comply with all the applicable requirements of Sections 5.0, 6.0, and 7.0. An engine that is not subject to Section 5.1 is not eligible for inclusion in an AECF.

As stated previously, all engine involved in this project and located at this facility is currently in compliance with the requirements of District Rule 4702. Therefore, this Section of the Rule is not applicable to the engine involved with this project.

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.

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: 8,710 dscf/MMBtu at 68 °F, equivalent to

$$\text{Corrected } F - \text{factor} = \left(\frac{8,710 \text{ dscf}}{\text{MMBtu}} \right) \times \left(\frac{60^\circ F + 459.6}{68^\circ F + 459.6} \right) = 8,578 \frac{\text{dscf}}{\text{MMBtu}} \text{ at } 60^\circ F$$

Natural Gas Combustion:

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

$$\text{Sulfur Concentration} = 1.97 \frac{\text{parts}}{\text{million}} < 2,000 \text{ ppmv (or 0.2\%)}$$

Therefore, compliance with District Rule 4801 requirements is expected.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is 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 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.

Project specific impacts on global climate change were evaluated consistent with the adopted District policy – *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*. The District's engineering evaluation (this document – Appendix E) demonstrates that the project includes Best Performance Standards (BPS) for each class and category of greenhouse gas emissions unit. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

The following conditions will be added to the permits to ensure the facility meets the requirements of this BPS:

Permit Units C-7748-10-3, -11-3, and -13-3:

- Electric motors driving combustion air fans or induced draft fans shall have an efficiency meeting the standards of the National Electric Manufacturer's Association (NEMA) for "premium efficiency" motors and shall each be operated with a variable speed control or equivalent for control of flow through the fan. [Public Resources Code 21000-21177: California Environmental Quality Act]

Permit Unit C-7748-14-3:

- The boiler shall be equipped with an economizer system that consists of, at a minimum, a single stage economizer section which will recover energy from the boiler flue gas by heat exchange with the boiler feed water. The economizer system shall be designed at maximum boiler firing rate to either 1) reduce the temperature of the economizer flue gas outlet to a value no greater than 20 deg F above the temperature of the boiler feed water at maximum firing rate, or 2) heat the boiler feed water to a temperature which is no less than 30 deg F below the steam temperature at the steam drum. [Public Resources Code 21000-21177: California Environmental Quality Act]
- Electric motors driving combustion air fans or induced draft fans shall have an efficiency meeting the standards of the National Electric Manufacturer's Association (NEMA) for "premium efficiency" motors and shall each be operated with a variable speed control or equivalent for control of flow through the fan. [Public Resources Code 21000-21177: California Environmental Quality Act]
- The boiler shall be equipped with an automatic boiler blowdown control system which minimizes boiler blowdown while controlling dissolved solids in the boiler water at an optimum level. [Public Resources Code 21000-21177: California Environmental Quality Act]

Permit Unit C-7748-16-1:

As demonstrated in Appendix E, the IC engine cogeneration system will meet the emissions performance design standard of the BPS, therefore the unit meets the requirements of the BPS and no additional permit conditions are necessary.

District CEQA Findings

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

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATCs C-7748-10-3, -11-3, -13-3, -14-3, and -16-1 subject to the permit conditions on the attached draft ATCs in Appendix A.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
C-7748-10-3	3020-02-H	54 MMBtu/hr dehydrator	\$1,030.00
C-7748-11-3	3020-02-H	54 MMBtu/hr dehydrator	\$1,030.00
C-7748-13-3	3020-02-H	55 MMBtu/hr dehydrator	\$1,030.00
C-7748-14-3	3020-02-H	29.4 MMBtu/hr boiler	\$1,030.00
C-7748-16-1	3020-08A-C	1,350 kW electrical generator	\$1,533.00

Appendixes

- A: Draft ATCs
- B: Current PTOs and Unimplemented ATCs
- C: BACT Guideline and Top down BACT Analysis
- D: HRA Summary and AAQA
- E: CEQA GHG: Project specific Analysis

Appendix A

Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-7748-10-3

LEGAL OWNER OR OPERATOR: OLAM WEST COAST INC
MAILING ADDRESS: 47641 W NEES AVE
FIREBAUGH, CA 93622

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE A) WITH ONE 54 MMBTU/HR MAXON MODEL SERIES A NATURAL GAS-FIRED BURNER SERVED BY TWO CYCLONES: INCREASE THE ANNUAL COMBINED EMISSIONS LIMITS

CONDITIONS

1. Authority to Construct (ATC) N-7748-10-5 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201]
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 1,498 lb, 2nd quarter - 1,498 lb, 3rd quarter - 1,499 lb, and fourth quarter - 1,499 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERCs specified below. [District Rule 2201]
3. ERC Certificate Numbers C-959-2 and C-1006-2 (or a certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. Permittee shall submit an application to comply with SJVUAPCD District Rule 2520 - Federally Mandated Operating Permits within 12 months of implementing ATC C-7748-10-3, -11-3, -13-3, -14-3, or -16-1. [District Rule 2520]
5. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director, APCO

DRAFT

DAVID WARNER, Director of Permit Services

C-7748-10-3: Sep 10 2013 1:44PM - FUKUDAD : Joint Inspection NOT Required

7. {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]
8. Electric motors driving combustion air fans or induced draft fans shall have an efficiency meeting the standards of the National Electric Manufacturer's Association (NEMA) for "premium efficiency" motors and shall each be operated with a variable speed control or equivalent for control of flow through the fan. [Public Resources Code 21000-21177: California Environmental Quality Act]
9. 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]
10. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]
11. This dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrator's manufacturer or APCO-approved alternative procedures. [District Rule 4309]
12. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 23,996 lb-NOx/year, 1,387 lb-SOx/year, 6,758 lb-PM10/year, 33,015 lb-CO/year, and 13,169 lb-VOC/year. [District Rules 2201 and 4102]
13. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201]
14. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year. [District Rule 2201]
15. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201]
16. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.25 ppmvd NOx @ 19% O2 or 0.06 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 8.62 ppmvd CO @ 19% O2 or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201 and 4309]
17. A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 4309]
18. Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309]
19. Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]
20. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201]
21. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201]
22. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-7748-11-3

LEGAL OWNER OR OPERATOR: OLAM WEST COAST INC
MAILING ADDRESS: 47641 W NEES AVE
FIREBAUGH, CA 93622

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE B) WITH ONE 54 MMBTU/HR MAXON MODEL SERIES A NATURAL GAS-FIRED BURNER SERVED BY TWO CYCLONES: INCREASE THE ANNUAL COMBINED EMISSIONS LIMITS

CONDITIONS

1. Authority to Construct (ATC) N-7748-11-5 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201]
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 1,498 lb, 2nd quarter - 1,498 lb, 3rd quarter - 1,499 lb, and fourth quarter - 1,499 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERCs specified below. [District Rule 2201]
3. ERC Certificate Numbers C-959-2 and C-1006-2 (or a certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. Permittee shall submit an application to comply with SJVUAPCD District Rule 2520 - Federally Mandated Operating Permits within 12 months of implementing ATC C-7748-10-3, -11-3, -13-3, -14-3, or -16-1. [District Rule 2520]
5. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Sayed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
C-7748-11-3: Sep 10 2013 1:44PM - FUKUDAD : Joint Inspection NOT Required

7. {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]
8. Electric motors driving combustion air fans or induced draft fans shall have an efficiency meeting the standards of the National Electric Manufacturer's Association (NEMA) for "premium efficiency" motors and shall each be operated with a variable speed control or equivalent for control of flow through the fan. [Public Resources Code 21000-21177: California Environmental Quality Act]
9. 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]
10. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]
11. This dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrator's manufacturer or APCO-approved alternative procedures. [District Rule 4309]
12. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 23,996 lb-NOx/year, 1,387 lb-SOx/year, 6,758 lb-PM10/year, 33,015 lb-CO/year, and 13,169 lb-VOC/year. [District Rules 2201 and 4102]
13. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201]
14. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year. [District Rule 2201]
15. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201]
16. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.25 ppmvd NOx @ 19% O2 or 0.06 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 8.62 ppmvd CO @ 19% O2 or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201 and 4309]
17. A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 4309]
18. Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309]
19. Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]
20. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201]
21. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201]
22. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-7748-13-3

LEGAL OWNER OR OPERATOR: OLAM WEST COAST INC
MAILING ADDRESS: 47641 W NEES AVE
FIREBAUGH, CA 93622

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 48.5 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE D) WITH TWO 20 MMBTU/HR MAXON MODEL NP1, THREE 8 MMBTU/HR MAXON MODEL NP1, AND ONE 5 MMBTU/HR NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES AND ASSOCIATED ONION SLICER EQUIPMENT: INCREASE THE ANNUAL COMBINED EMISSIONS LIMITS

CONDITIONS

1. Authority to Construct (ATC) N-7748-13-5 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201]
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 1,498 lb, 2nd quarter - 1,498 lb, 3rd quarter - 1,499 lb, and fourth quarter - 1,499 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERCs specified below. [District Rule 2201]
3. ERC Certificate Numbers C-959-2 and C-1006-2 (or a certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. Permittee shall submit an application to comply with SJVUAPCD District Rule 2520 - Federally Mandated Operating Permits within 12 months of implementing ATC C-7748-10-3, -11-3, -13-3, -14-3, or -16-1. [District Rule 2520]
5. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director, APCO

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DAVID WARNER, Director of Permit Services

C-7748-13-3: Sep 10 2013 1:45PM - FUKUDAD : Joint Inspection NOT Required

7. {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]
8. Electric motors driving combustion air fans or induced draft fans shall have an efficiency meeting the standards of the National Electric Manufacturer's Association (NEMA) for "premium efficiency" motors and shall each be operated with a variable speed control or equivalent for control of flow through the fan. [Public Resources Code 21000-21177: California Environmental Quality Act]
9. 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]
10. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]
11. This dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrator's manufacturer or APCO-approved alternative procedures. [District Rule 4309]
12. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 23,996 lb-NOx/year, 1,387 lb-SOx/year, 6,758 lb-PM10/year, 33,015 lb-CO/year, and 13,169 lb-VOC/year. [District Rules 2201 and 4102]
13. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201]
14. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year. [District Rule 2201]
15. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201]
16. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.25 ppmvd NOx @ 19% O2 or 0.06 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 8.62 ppmvd CO @ 19% O2 or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201 and 4309]
17. A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 4309]
18. Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309]
19. Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]
20. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201]
21. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201]
22. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
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PERMIT NO: C-7748-14-3

LEGAL OWNER OR OPERATOR: OLAM WEST COAST INC
MAILING ADDRESS: 47641 W NEES AVE
FIREBAUGH, CA 93622

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 29.4 MMBTU/HR CLEAVER BROOKS MODEL CBI 700 NATURAL GAS-FIRED BOILER WITH A ERIB GIDEON MODEL ERIB 800 ULTRA LOW NOX BURNER AND O2 TRIM SYSTEM: INCREASE ANNUAL COMBINED EMISSIONS LIMITS

CONDITIONS

1. Authority to Construct (ATC) N-7748-14-4 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201]
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 1,498 lb, 2nd quarter - 1,498 lb, 3rd quarter - 1,499 lb, and fourth quarter - 1,499 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERCs specified below. [District Rule 2201]
3. ERC Certificate Numbers C-959-2 and C-1006-2 (or a certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. Permittee shall submit an application to comply with SJVUAPCD District Rule 2520 - Federally Mandated Operating Permits within 12 months of implementing ATC C-7748-10-3, -11-3, -13-3, -14-3, or -16-1. [District Rule 2520]
5. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

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DAVID WARNER, Director of Permit Services

C-7748-14-3: Sep 10 2013 1:45PM - FUKUDAD : Joint Inspection NOT Required

7. {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]
8. The boiler shall be equipped with an economizer system that consists of, at a minimum, a single stage economizer section which will recover energy from the boiler flue gas by heat exchange with the boiler feed water. The economizer system shall be designed at maximum boiler firing rate to either 1) reduce the temperature of the economizer flue gas outlet to a value no greater than 20 deg F above the temperature of the boiler feed water at maximum firing rate, or 2) heat the boiler feed water to a temperature which is no less than 30 deg F below the steam temperature at the steam drum. [Public Resources Code 21000-21177: California Environmental Quality Act]
9. Electric motors driving combustion air fans or induced draft fans shall have an efficiency meeting the standards of the National Electric Manufacturer's Association (NEMA) for "premium efficiency" motors and shall each be operated with a variable speed control or equivalent for control of flow through the fan. [Public Resources Code 21000-21177: California Environmental Quality Act]
10. The boiler shall be equipped with an automatic boiler blowdown control system which minimizes boiler blowdown while controlling dissolved solids in the boiler water at an optimum level. [Public Resources Code 21000-21177: California Environmental Quality Act]
11. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4320]
12. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. [District Rules 2201 and 40 CFR 60.48 (c)(g)]
13. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 23,996 lb-NO_x/year, 1,387 lb-SO_x/year, 6,758 lb-PM₁₀/year, 33,015 lb-CO/year, and 13,169 lb-VOC/year. [District Rules 2201 and 4102]
14. 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, 0.014 lb-PM₁₀/MMBtu, 81.2 ppmv CO @ 3% O₂ or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]
15. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320]
16. 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]
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]
18. {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]
19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320]
20. NO_x 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]
21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320]
22. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320]

23. {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
24. 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 it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320]
25. 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]
26. 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]
27. 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]
28. Permittee shall maintain daily records of the type and quantity of fuel combusted by the boiler. [District Rules 2201 and 40 CFR 60.48 (c)(g)]
29. Permittee shall maintain records of the combined annual NO_x, SO_x, PM₁₀, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
30. 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]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-7748-16-1

LEGAL OWNER OR OPERATOR: OLAM WEST COAST INC
MAILING ADDRESS: 47641 W NEES AVE
FIREBAUGH, CA 93622

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 1877 HP DEUTZ MODEL TBG620V16 NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A MIRATECH SCR SYSTEM, POWERING A 1350 KW COGENERATION SYSTEM: INCREASE THE ANNUAL COMBINED EMISSIONS LIMITS

CONDITIONS

1. Authority to Construct (ATC) N-7748-16-2 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201]
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 1,498 lb, 2nd quarter - 1,498 lb, 3rd quarter - 1,499 lb, and fourth quarter - 1,499 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERCs specified below. [District Rule 2201]
3. ERC Certificate Numbers C-959-2 and C-1006-2 (or a certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. Permittee shall submit an application to comply with SJVUAPCD District Rule 2520 - Federally Mandated Operating Permits within 12 months of implementing ATC C-7748-10-3, -11-3, -13-3, -14-3, or -16-1. [District Rule 2520]
5. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director, APCO

DAVID WARNER, Director of Permit Services

C-7748-16-1: Sep 10 2013 1:45PM - FUKUDAD : Joint Inspection NOT Required

7. {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]
8. {2964} The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201]
9. {3201} The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702]
10. The operation of the IC engine shall not exceed more than 180 days/year. [District Rule 2201]
11. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NO_x @ 15% O₂ (equivalent to 0.06 g-NO_x/hp-hr), 0.011 g-SO_x/hp-hr, 0.02 g-PM₁₀/hp-hr, 71 ppmvd CO @ 15% O₂ (equivalent to 0.6 g-CO/hp-hr), or 25 ppmvd VOC @ 15% O₂ (equivalent to 0.15 g-VOC/hp-hr). [District Rules 2201 and 4702 and 40 CFR 60 Subpart JJJJ]
12. The ammonia (NH₃) emissions shall not exceed 10 ppmvd @ 15% O₂. [District Rules 2201 and 4102]
13. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 23,996 lb-NO_x/year, 1,387 lb-SO_x/year, 6,758 lb-PM₁₀/year, 33,015 lb-CO/year, and 13,169 lb-VOC/year. [District Rules 2201 and 4102]
14. NO_x, CO, VOC, and NH₃ emissions shall be measured (source tested) not less than once every 12 months. [District Rules 2201 and 4702]
15. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702]
16. 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. VOC emissions shall be reported as methane. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702]
17. The following test methods shall be used for testing other than start-up testing: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702]
18. {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
19. {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]
20. The permittee shall monitor and record the stack concentration of NO_x, CO, O₂, and NH₃ at least once every month (in which a source test is not performed). NO_x, CO, and O₂ concentrations shall be preformed using a portable emission monitor that meets District specifications. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4102 and 4702]

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21. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours 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 4102 and 4702]
22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702]
23. {3202} This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702]
24. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% 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 4102 and 4702]
25. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]
26. Permittee shall maintain annual records of the days the natural gas-fired IC engine is operated. [District Rule 2201]
27. Permittee shall maintain records of the combined annual NO_x, SO_x, PM₁₀, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
28. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4702]
29. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]

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Appendix B

Current PTOs and Unimplemented ATCs

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-7748-10-2

EXPIRATION DATE: 07/31/2014

EQUIPMENT DESCRIPTION:

54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE A) WITH ONE 54 MMBTU/HR MAXON MODEL SERIES A NATURAL GAS-FIRED BURNER SERVED BY TWO CYCLONES

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]
5. This dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrators manufacturer or APCO-approved alternative procedures. [District Rule 4309]
6. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 19,975 lb-NO_x/year, 1,123 lb-SO_x/year, 5,455 lb-PM₁₀/year, 19,975 lb-CO/year, and 11,465 lb-VOC/year. [District Rule 2201]
7. The combined daily material processed by units -10, -11, and -13 shall not exceed 150 ton/day. [District Rule 2201]
8. The combined annual material processed by units -10, -11, and -13 shall not exceed 23,255 tons/year. [District Rule 2201]
9. PM₁₀ emissions from the handling of dehydrated material not exceed 0.014 lb-PM₁₀/ton material processed. [District Rule 2201]
10. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.25 ppmvd NO_x @ 19% O₂ or 0.06 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.014 lb-PM₁₀/MMBtu, 8.62 ppmvd CO @ 19% O₂ or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201 and 4309]
11. A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 4309]
12. Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309]
13. Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]
14. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201]
15. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

16. Permittee shall maintain records of the combined annual NO_x, SO_x, PM₁₀, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
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 1070 and 4309]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-7748-11-2

EXPIRATION DATE: 07/31/2014

EQUIPMENT DESCRIPTION:

54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE B) WITH ONE 54 MMBTU/HR MAXON MODEL SERIES A NATURAL GAS-FIRED BURNER SERVED BY TWO CYCLONES

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]
5. This dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrators manufacturer or APCO-approved alternative procedures. [District Rule 4309]
6. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 19,975 lb-NO_x/year, 1,123 lb-SO_x/year, 5,455 lb-PM₁₀/year, 19,975 lb-CO/year, and 11,465 lb-VOC/year. [District Rule 2201]
7. The combined daily material processed by units -10, -11, and -13 shall not exceed 150 ton/day. [District Rule 2201]
8. The combined annual material processed by units -10, -11, and -13 shall not exceed 23,255 tons/year. [District Rule 2201]
9. PM₁₀ emissions from the handling of dehydrated material not exceed 0.014 lb-PM₁₀/ton material processed. [District Rule 2201]
10. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.25 ppmvd NO_x @ 19% O₂ or 0.06 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.014 lb-PM₁₀/MMBtu, 8.62 ppmvd CO @ 19% O₂ or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201 and 4309]
11. A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 4309]
12. Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309]
13. Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]
14. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201]
15. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

16. Permittee shall maintain records of the combined annual NO_x, SO_x, PM₁₀, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
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 1070 and 4309]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-7748-13-2

EXPIRATION DATE: 07/31/2014

EQUIPMENT DESCRIPTION:

69 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE D) WITH TWO 20 MMBTU/HR MAXON MODEL NP1, THREE 8 MMBTU/HR MAXON MODEL NP1, AND ONE 5 MMBTU/HR NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES AND ASSOCIATED ONION SLICER EQUIPMENT

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]
5. This dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrators manufacturer or APCO-approved alternative procedures. [District Rule 4309]
6. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 19,975 lb-NOx/year, 1,123 lb-SOx/year, 5,455 lb-PM10/year, 19,975 lb-CO/year, and 11,465 lb-VOC/year. [District Rule 2201]
7. The combined daily material processed by units -10, -11, and -13 shall not exceed 150 ton/day. [District Rule 2201]
8. The combined annual material processed by units -10, -11, and -13 shall not exceed 23,255 tons/year. [District Rule 2201]
9. PM10 emissions from the handling of dehydrated material not exceed 0.014 lb-PM10/ton material processed. [District Rule 2201]
10. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.25 ppmvd NOx @ 19% O2 or 0.06 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 8.62 ppmvd CO @ 19% O2 or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201 and 4309]
11. A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 4309]
12. Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309]
13. Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]
14. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201]
15. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

16. Permittee shall maintain records of the combined annual NO_x, SO_x, PM₁₀, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
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 1070 and 4309]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-7748-14-2

EXPIRATION DATE: 07/31/2014

EQUIPMENT DESCRIPTION:

29.4 MMBTU/HR CLEAVER BROOKS MODEL CBI 700 NATURAL GAS-FIRED BOILER WITH A ERIB GIDEON MODEL ERIB 800 ULTRA LOW NOX BURNER AND O2 TRIM SYSTEM

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201]
5. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. [District Rules 2201 and 40 CFR 60.48 (c)(g)]
6. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 19,975 lb-NO_x/year, 1,123 lb-SO_x/year, 5,455 lb-PM₁₀/year, 19,975 lb-CO/year, and 11,465 lb-VOC/year. [District Rule 2201]
7. 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, 0.014 lb-PM₁₀/MMBtu, 81.2 ppmv CO @ 3% O₂ or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]
8. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320]
9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320]
10. 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]
11. 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]
12. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320]
13. NO_x 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320]
15. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320]
16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
17. 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 it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320]
18. 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]
19. 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]
20. 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]
21. Permittee shall maintain daily records of the type and quantity of fuel combusted by the boiler. [District Rules 2201 and 40 CFR 60.48 (c)(g)]
22. Permittee shall maintain records of the combined annual NO_x, SO_x, PM₁₀, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
23. 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]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-7748-16-0

EXPIRATION DATE: 07/31/2014

EQUIPMENT DESCRIPTION:

1877 HP DEUTZ MODEL TBG620V16 NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A MIRATECH SCR SYSTEM, POWERING A 1350 KW GENERATOR

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201]
5. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702]
6. The operation of the IC engine shall not exceed more than 180 days/year. [District Rule 2201]
7. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NOx @ 15% O2 (equivalent to 0.06 g-NOx/hp-hr), 0.011 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 71 ppmvd CO @ 15% O2 (equivalent to 0.6 g-CO/hp-hr), or 25 ppmvd VOC @ 15% O2 (equivalent to 0.15 g-VOC/hp-hr). [District Rules 2201 and 4702]
8. The ammonia (NH3) emissions shall not exceed 10 ppmvd @ 15% O2. [District Rules 2201 and 4102]
9. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 19,975 lb-NOx/year, 1,123 lb-SOx/year, 5,455 lb-PM10/year, 19,975 lb-CO/year, and 11,465 lb-VOC/year. [District Rule 2201]
10. NOx, CO, VOC, and NH3 emissions shall be measured (source tested) not less than once every 12 months. [District Rules 2201 and 4702]
11. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702]
12. 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. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702]
13. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702]
14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

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]
16. The permittee shall monitor and record the stack concentration of NO_x, CO, O₂, and NH₃ at least once every month (in which a source test is not performed). NO_x, CO, and O₂ concentrations shall be performed using a portable emission monitor that meets District specifications. NH₃ monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4102 and 4702]
17. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, or the NH₃ concentrations corrected to 15% O₂, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours 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 4102 and 4702]
18. 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 Rule 4702]
19. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702]
20. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% 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 4102 and 4702]
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]
22. Permittee shall maintain annual records of the days the natural gas-fired IC engine is operated. [District Rule 2201]
23. Permittee shall maintain records of the combined annual NO_x, SO_x, PM₁₀, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
24. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4702]
25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]

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



AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-10-4

ISSUANCE DATE: 06/07/2013

LEGAL OWNER OR OPERATOR: OLAM WEST COAST INC
MAILING ADDRESS: 47641 W NEES AVE
FIREBAUGH, CA 93622

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE A) WITH ONE 54 MMBTU/HR MAXON MODEL SERIES A NATURAL GAS-FIRED BURNER SERVED BY TWO CYCLONES: INCREASE THE COMBINED DAILY MATERIAL THROUGHPUT LIMIT FROM 150 TONS/DAY TO 375 TONS/DAY

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]
5. This dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrator's manufacturer or APCO-approved alternative procedures. [District Rule 4309]
6. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 19,975 lb-NOx/year, 1,123 lb-SOx/year, 5,455 lb-PM10/year, 19,975 lb-CO/year, and 11,465 lb-VOC/year. [District Rule 2201]
7. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201]
8. The combined annual material processed by units -10, -11, and -13 shall not exceed 23,255 tons/year. [District Rule 2201]
9. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-6960 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.

Sayed Sadredin, Executive Director / APCO


DAVID WARNER, Director of Permit Services
C-7748-10-4 : Jun 7 2013 9:53AM - FUKUDAD : Joint Inspection NOT Required

10. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.25 ppmvd NOx @ 19% O2 or 0.06 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 8.62 ppmvd CO @ 19% O2 or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201 and 4309]
11. A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 4309]
12. Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309]
13. Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]
14. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201]
15. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201]
16. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
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 1070 and 4309]



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT



HEALTHY AIR LIVING™
FILE

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-11-4

ISSUANCE DATE: 06/07/2013

LEGAL OWNER OR OPERATOR: OLAM WEST COAST INC
MAILING ADDRESS: 47641 W NEES AVE
FIREBAUGH, CA 93622

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE B) WITH ONE 54 MMBTU/HR MAXON MODEL SERIES A NATURAL GAS-FIRED BURNER SERVED BY TWO CYCLONES: INCREASE THE COMBINED DAILY MATERIAL THROUGHPUT LIMIT FROM 150 TONS/DAY TO 375 TONS/DAY

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]
5. This dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrator's manufacturer or APCO-approved alternative procedures. [District Rule 4309]
6. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 19,975 lb-NOx/year, 1,123 lb-SOx/year, 5,455 lb-PM10/year, 19,975 lb-CO/year, and 11,465 lb-VOC/year. [District Rule 2201]
7. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201]
8. The combined annual material processed by units -10, -11, and -13 shall not exceed 23,255 tons/year. [District Rule 2201]
9. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO



DAVID WARNER, Director of Permit Services
C-7748-11-4 : Jun 7 2013 9:53AM - FUKUDAD : Joint Inspection NOT Required

Conditions for C-7748-11-4 (continued)

10. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.25 ppmvd NO_x @ 19% O₂ or 0.06 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.014 lb-PM₁₀/MMBtu, 8.62 ppmvd CO @ 19% O₂ or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201 and 4309]
11. A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 4309]
12. Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309]
13. Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]
14. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201]
15. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201]
16. Permittee shall maintain records of the combined annual NO_x, SO_x, PM₁₀, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
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 1070 and 4309]



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT


HEALTHY AIR LIVING™

FILE

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-13-4

ISSUANCE DATE: 06/07/2013

LEGAL OWNER OR OPERATOR: OLAM WEST COAST INC
MAILING ADDRESS: 47641 W NEES AVE
FIREBAUGH, CA 93622

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 69 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE D) WITH TWO 20 MMBTU/HR MAXON MODEL NP1, THREE 8 MMBTU/HR MAXON MODEL NP1, AND ONE 5 MMBTU/HR NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES AND ASSOCIATED ONION SLICER EQUIPMENT. INCREASE THE COMBINED DAILY MATERIAL THROUGHPUT LIMIT FROM 150 TONS/DAY TO 375 TONS/DAY

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]
5. This dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrator's manufacturer or APCO-approved alternative procedures. [District Rule 4309]
6. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 19,975 lb-NOx/year, 1,123 lb-SOx/year, 5,455 lb-PM10/year, 19,975 lb-CO/year, and 11,465 lb-VOC/year. [District Rule 2201]
7. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201]
8. The combined annual material processed by units -10, -11, and -13 shall not exceed 23,255 tons/year. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO


DAVID WARNER, Director of Permit Services
C-7748-13-4: Jun 7 2013 9:53AM - FUKUDAD : Joint Inspection NOT Required

Conditions for C-7748-13-4 (continued)

9. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201]
10. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.25 ppmvd NOx @ 19% O2 or 0.06 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 8.62 ppmvd CO @ 19% O2 or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201 and 4309]
11. A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 4309]
12. Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309]
13. Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]
14. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201]
15. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201]
16. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
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 1070 and 4309]



FILE

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-10-5

ISSUANCE DATE: 09/03/2013

LEGAL OWNER OR OPERATOR: OLAM WEST COAST INC
MAILING ADDRESS: 47641 W NEES AVE
FIREBAUGH, CA 93622

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE A) WITH ONE 54 MMBTU/HR MAXON MODEL SERIES A NATURAL GAS-FIRED BURNER SERVED BY TWO CYCLONES; INCREASE THE ANNUAL COMBINED MATERIAL THROUGHPUT LIMIT AND THE ANNUAL COMBINED PM10 AND CO EMISSIONS LIMITS

CONDITIONS

1. Authority to Construct (ATC) N-7748-10-4 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. 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]
5. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]
6. This dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrator's manufacturer or APCO-approved alternative procedures. [District Rule 4309]
7. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 19,975 lb-NOx/year, 1,123 lb-SOx/year, 5,635 lb-PM10/year, 28,994 lb-CO/year, and 11,465 lb-VOC/year. [District Rule 2201]
8. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201]
9. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO


DAVID WARNER, Director of Permit Services

C-7748-10-5: Sep 3 2013 4:12PM - FLKUDAD : Joint Inspection NOT Required

10. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201]
11. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.25 ppmvd NOx @ 19% O2 or 0.06 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 8.62 ppmvd CO @ 19% O2 or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201 and 4309]
12. A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 4309]
13. Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309]
14. Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]
15. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201]
16. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201]
17. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
18. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309]



FILE

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-11-5

ISSUANCE DATE: 09/03/2013

LEGAL OWNER OR OPERATOR: OLAM WEST COAST INC
MAILING ADDRESS: 47641 W NEES AVE
FIREBAUGH, CA 93622

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE B) WITH ONE 54 MMBTU/HR MAXON MODEL SERIES A NATURAL GAS-FIRED BURNER SERVED BY TWO CYCLONES: INCREASE THE ANNUAL COMBINED MATERIAL THROUGHPUT LIMIT AND THE ANNUAL COMBINED PM10 AND CO EMISSIONS LIMITS

CONDITIONS

1. Authority to Construct (ATC) N-7748-11-4 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. 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]
5. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]
6. This dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrator's manufacturer or APCO-approved alternative procedures. [District Rule 4309]
7. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 19,975 lb-NOx/year, 1,123 lb-SOx/year, 5,635 lb-PM10/year, 28,994 lb-CO/year, and 11,465 lb-VOC/year. [District Rule 2201]
8. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201]
9. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO


DAVID WARNER, Director of Permit Services

C-7748-11-5 : Sep 3 2013 4:13PM - FUKUDAD : Joint Inspection NOT Required

10. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201]
11. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.25 ppmvd NOx @ 19% O2 or 0.06 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 8.62 ppmvd CO @ 19% O2 or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201 and 4309]
12. A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 4309]
13. Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309]
14. Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]
15. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201]
16. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201]
17. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
18. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309]



FILE

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-13-5

ISSUANCE DATE: 09/03/2013

LEGAL OWNER OR OPERATOR: OLAM WEST COAST INC
MAILING ADDRESS: 47641 W NEES AVE
FIREBAUGH, CA 93622

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 69 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE D) WITH TWO 20 MMBTU/HR MAXON MODEL NP1, THREE 8 MMBTU/HR MAXON MODEL NP1, AND ONE 5 MMBTU/HR NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES AND ASSOCIATED ONION SLICER EQUIPMENT: CORRECT THE TOTAL BURNER RATING 48.5 MMBTU/HR, AND INCREASE THE ANNUAL COMBINED MATERIAL THROUGHPUT LIMIT AND THE ANNUAL COMBINED PM10 AND CO EMISSIONS LIMITS

CONDITIONS

1. Authority to Construct (ATC) N-7748-13-4 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. 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]
5. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]
6. This dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrator's manufacturer or APCO-approved alternative procedures. [District Rule 4309]
7. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 19,975 lb-NOx/year, 1,123 lb-SOx/year, 5,635 lb-PM10/year, 28,994 lb-CO/year, and 11,465 lb-VOC/year. [District Rule 2201]
8. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO


DAVID WARNER, Director of Permit Services

C-7748-13-5: Sep 3 2013 4:13PM - FUKUDAD - Joint Inspection NOT Required

9. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year. [District Rule 2201]
10. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201]
11. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.25 ppmvd NO_x @ 19% O₂ or 0.06 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.014 lb-PM10/MMBtu, 8.62 ppmvd CO @ 19% O₂ or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201 and 4309]
12. A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 4309]
13. Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309]
14. Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]
15. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201]
16. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201]
17. Permittee shall maintain records of the combined annual NO_x, SO_x, PM10, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
18. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309]



FILE

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-14-4

ISSUANCE DATE: 09/03/2013

LEGAL OWNER OR OPERATOR: OLAM WEST COAST INC
MAILING ADDRESS: 47641 W NEES AVE
FIREBAUGH, CA 93622

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 29.4 MMBTU/HR CLEAVER BROOKS MODEL CBI 700 NATURAL GAS-FIRED BOILER WITH A ERIB GIDEON MODEL ERIB 800 ULTRA LOW NOX BURNER AND O2 TRIM SYSTEM: INCREASE THE ANNUAL COMBINED PM10 AND CO EMISSIONS LIMITS

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4320]
5. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. [District Rules 2201 and 40 CFR 60.48 (c)(g)]
6. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 19,975 lb-NOx/year, 1,123 lb-SOx/year, 5,635 lb-PM10/year, 28,994 lb-CO/year, and 11,465 lb-VOC/year. [District Rule 2201]
7. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmv NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 81.2 ppmv CO @ 3% O2 or 0.06 lb-CO/MMBtu, or 0.026 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO


DAVID WARNER, Director of Permit Services

8. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320]
9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320]
10. 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]
11. 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]
12. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320]
13. NO_x 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]
14. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320]
15. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320]
16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
17. 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 it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320]
18. 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]
19. 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]
20. 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]

Conditions for C-7748-14-4 (continued)

21. Permittee shall maintain daily records of the type and quantity of fuel combusted by the boiler. [District Rules 2201 and 40 CFR 60.48 (c)(g)]
22. Permittee shall maintain records of the combined annual NO_x, SO_x, PM₁₀, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
23. 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]



FILE

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-16-2

ISSUANCE DATE: 09/03/2013

LEGAL OWNER OR OPERATOR: OLAM WEST COAST INC
MAILING ADDRESS: 47641 W NEES AVE
FIREBAUGH, CA 93622

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 1877 HP DEUTZ MODEL TBG620V16 NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A MIRATECH SCR SYSTEM, POWERING A 1350 KW GENERATOR: INCREASE THE ANNUAL COMBINED PM10 AND CO EMISSIONS LIMITS

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201]
5. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702]
6. The operation of the IC engine shall not exceed more than 180 days/year. [District Rule 2201]
7. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NOx @ 15% O2 (equivalent to 0.06 g-NOx/hp-hr), 0.011 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 71 ppmvd CO @ 15% O2 (equivalent to 0.6 g-CO/hp-hr), or 25 ppmvd VOC @ 15% O2 (equivalent to 0.15 g-VOC/hp-hr). [District Rules 2201 and 4702 and 40 CFR 60 Subpart JJJJ]
8. The ammonia (NH3) emissions shall not exceed 10 ppmvd @ 15% O2. [District Rules 2201 and 4102]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO


DAVID WARNER, Director of Permit Services

9. The combined annual emissions from units -10, -11, -13, -14, and -16 shall not exceed any of the following limits: 19,975 lb-NOx/year, 1,123 lb-SOx/year, 5,635 lb-PM10/year, 28,994 lb-CO/year, and 11,465 lb-VOC/year. [District Rule 2201]
10. NOx, CO, VOC, and NH3 emissions shall be measured (source tested) not less than once every 12 months. [District Rules 2201 and 4702]
11. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702]
12. 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. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702]
13. The following test methods shall be used for testing other than start-up testing: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and ammonia - BAAQMD ST-1B. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4702]
14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
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]
16. The permittee shall monitor and record the stack concentration of NOx, CO, O2, and NH3 at least once every month (in which a source test is not performed). NOx, CO, and O2 concentrations shall be performed using a portable emission monitor that meets District specifications. NH3 monitoring shall be conducted utilizing District approved gas-detection tubes or a District approved equivalent method. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4102 and 4702]
17. If the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, or the NH3 concentrations corrected to 15% O2, as measured by District approved gas-detection tubes, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours 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 4102 and 4702]
18. 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 Rule 4702]
19. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702]

20. The permittee shall maintain records of: (1) the date and time of NO_x, CO, O₂ and NH₃ measurements, (2) the O₂ concentration in percent and the measured NO_x, CO, and NH₃ concentrations corrected to 15% 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 4102 and 4702]
21. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]
22. Permittee shall maintain annual records of the days the natural gas-fired IC engine is operated. [District Rule 2201]
23. Permittee shall maintain records of the combined annual NO_x, SO_x, PM₁₀, CO, and VOC emissions of units -10, -11, -13, -14, and -16. [District Rule 2201]
24. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4702]
25. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]

Appendix C

BACT Guidelines and Top Down BACT Analysis

Per » B A C T » Bact Guideline.asp?category Level1=1&category Level2=6&category Level3=13&last Update=6 » 26 :

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**Best Available Control Technology (BACT) Guideline 1.6.13
Last Update: 6/26/1998**

Dehydrator - Vegetable, Continuous Process

Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
NOx		1. Low-NOx Burner with SCR (<0.036 lb/MMBtu) 2. Low NOx Burner (0.036 lb/MMBtu) 3. Natural Gas Fired Burner (<0.06lb/MMBtu)	
PM10		PUC-quality natural gas fuel and vents ducted to a cyclone (>90% control efficiency) on product transfer points.	baghouse
VOC		Use of PUC-quality natural gas fuel	

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

This is a Summary Page for this Class of Source. For background information, see Permit Specific BACT Determinations on Details Page.

[Per » B A C T » Bact Guideline.asp?category Level1=3&category Level2=3&category Level3=12&last Update=10 » 1 :](#)

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**Best Available Control Technology (BACT) Guideline 3.3.12
Last Update: 10/1/2002**

Fossil Fuel Fired IC Engine > 50 hp**

Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
CO	56 ppmvd @ 15% O ₂ , 0.6 g/bhp-hr, or 1.9 lb/MW-hr		
NOx	9 ppmvd @ 15% O ₂ , 0.15 g/bhp-hr, or 0.5 lb/MW/hr	5 ppmv @ 15% O ₂ (Selective Catalytic Reduction, or equal)	2 ppmv natural gas fired turbine
PM10	0.02 g/bhp-hr, or 0.06 lb/MW-hr		
SOx	PUC quality natural gas, or equal.		
VOC	25 ppmvd @15% O ₂ , 0.15 g/bhp-hr, or 0.5 lb/MW-hr		

*** For the purposes of this determination, fossil fuels includes diesel, gasoline, natural gas, propane, kerosene, and similar hydrocarbon compounds derived from petroleum oil or natural gas. Fossil fuels also include similar synthetic fuels such as biodiesel and/or any fuel containing one or more fossil fuels.*

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

This is a Summary Page for this Class of Source. For background information, see Permit Specific BACT Determinations on [Details Page](#).

Units -10-3, -11-3, and -13-3 (Vegetable Dehydration Lines A, B, and D):

I. NO_x Top-Down BACT Analysis

Step 1 - Identify All Possible Control Technologies

SJVAPCD BACT Clearinghouse Guideline 1.6.13 does not identify any achieved in practice BACT control alternatives.

SJVAPCD BACT Clearinghouse Guideline 1.6.13 identifies technologically feasible BACT control alternatives as follows.

- Low NO_x Burner with SCR (<0.036 lb/MMBtu)
- Low NO_x Burner (0.036 lb/MMBtu)
- Natural Gas Fired Burner (<0.06 lb/MMBtu)

SJVAPCD BACT Clearinghouse Guideline 1.6.13 does not identify any alternate basic equipment BACT control alternatives.

Step 2 - Eliminate Technologically Infeasible Options

Low NO_x Burner with SCR (<0.036 lb/MMBtu):

Low NO_x Burner (0.036 lb/MMBtu):

The facility has stated that the use of low-NO_x burners will cause the onions to turn pink in color. The burners emit lower NO_x, but higher CO. The higher CO levels caused the dried garlic and onion to turn pink which negatively affected product quality/value and led to the removal of the burners in the past (see Project C-1084411). Unacceptable detriment to product quality makes low-NO_x burners technologically infeasible for the onion and garlic dehydrator.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

- Natural Gas Fired Burner (<0.06 lb/MMBtu)

Step 4 - Cost Effectiveness Analysis

A cost effective analysis must be performed for all control options in the list from step 3 in the order of their ranking to determine the cost effective option with the lowest emissions.

The applicant is proposing that all the dehydrator burners are fired on natural gas and have a NO_x emission factor of 0.06 lb/MMBtu. This is the highest ranking control option listed in Step 3 above. Therefore, in accordance with District policy APR 1305 (BACT), Section IX.D, a cost effective analysis is not necessary and no further discussion is required.

Step 5 - Select BACT

BACT for the emissions units is determined to be having the use of natural gas as the fuel for the burners and a NO_x emission factor of 0.06 lb-NO_x/MMBtu. Olam West Coast Inc. is proposing that all the dehydrator burners are fired on natural gas and have a NO_x emission factor of 0.06 lb/MMBtu; therefore, BACT is satisfied.

Units -10-3, -11-3, and -13-3 (Vegetable Dehydration Lines A, B, and D):

II. PM₁₀ Top-Down BACT Analysis

Step 1 - Identify All Possible Control Technologies

SJVAPCD BACT Clearinghouse Guideline 1.6.13 does not identify any achieved in practice BACT control alternatives.

SJVAPCD BACT Clearinghouse Guideline 1.6.13 identifies technologically feasible BACT control alternatives as follows.

- PUC-Quality natural gas fuel and vents ducted to a cyclone (>90% control efficiency) on product transfer points.

SJVAPCD BACT Clearinghouse Guideline 1.6.13 identifies alternate basic equipment BACT control alternatives as follows.

- Baghouse.

Step 2 - Eliminate Technologically Infeasible Options

Based on a letter from the facility's contact person for their dehydrators, the use of a baghouse is technologically infeasible. Gary Schabel states that onion and garlic particulates from the dryer are too sticky to be controlled by a baghouse. The material would stick to the bags of the baghouse and the baghouse would rapidly become plugged up. Bag rooms can be used for dust pick-up in areas where the finished dried onions and garlic are handled, but the air in these areas always must be kept at 75 to 80 degrees F and 30% humidity or less to keep the dust from caking. This is not possible to do with the air from the dryer cyclones. The air from the dryer cyclones are typically about 50% to 60% relative humidity. Based on this information, a baghouse is determined to be technologically infeasible for this operation. All other control technologies are considered technologically feasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

- PUC-Quality natural gas fuel and vents ducted to a cyclone (>90% control efficiency) on product transfer points.

Step 4 - Cost Effectiveness Analysis

A cost effective analysis must be performed for all control options in the list from step 3 in the order of their ranking to determine the cost effective option with the lowest emissions.

The applicant is proposing that all the burners in the dehydrators are fired solely on natural gas fuel and that exhaust emissions are controlled by cyclone dust collectors. This is the highest ranking control option listed in Step 3 above. Therefore, in accordance with

District policy APR 1305 (BACT), Section IX.D, a cost effective analysis is not necessary and no further discussion is required.

Step 5 - Select BACT

BACT for the emissions units is determined to be firing the burners on PUC-Quality natural gas fuel and venting emissions to a cyclone (>90% control efficiency) on product transfer points. Olam West Coast Inc. is proposing that all the burners in the dehydrators are fired solely on natural gas fuel and that exhaust emissions are controlled by cyclone dust collectors; therefore, BACT is satisfied.

Units -10-3, -11-3, and -13-3 (Vegetable Dehydration Lines A, B, and D):

III. VOC Top-Down BACT Analysis

Step 1 - Identify All Possible Control Technologies

SJVAPCD BACT Clearinghouse Guideline 1.6.13 does not identify any achieved in practice BACT control alternatives.

SJVAPCD BACT Clearinghouse Guideline 1.6.13 identifies technologically feasible BACT control alternatives as follows.

- Use of PUC-quality natural gas fuel.

SJVAPCD BACT Clearinghouse Guideline 1.6.13 does not identify any alternate basic equipment BACT control alternatives.

Step 2 - Eliminate Technologically Infeasible Options

All of the listed controls are considered technologically feasible for this application.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

- Use of PUC-quality natural gas fuel.

Step 4 - Cost Effectiveness Analysis

A cost effective analysis must be performed for all control options in the list from step 3 in the order of their ranking to determine the cost effective option with the lowest emissions.

The applicant is proposing that the dehydrators are solely fired on PUC-quality natural gas fuel. This is the highest ranking control option listed in Step 3 above. Therefore, in accordance with District policy APR 1305 (BACT), Section IX.D, a cost effective analysis is not necessary and no further discussion is required.

Step 5 - Select BACT

BACT for the emission unit is determined to be the use of PUC-quality natural gas fuel. Olam West Coast Inc. is proposing that the dehydrators are solely fired on PUC-quality natural gas fuel; therefore, BACT is satisfied.

Unit -14-3 (Natural Gas-Fired Boiler):

I. NO_x Top-Down BACT Analysis

Step 1 - Identify All Possible Control Technologies

SJVAPCD BACT Clearinghouse Guideline 1.1.2 identifies achieved in practice BACT control alternatives as follows:

- 9.0 ppmvd @ 3% O₂ (0.0108 lb/MMBtu/hr) Ultra-Low NO_x main burner system and a natural gas or LPG fired igniter system (if the igniter system is used to heat the boiler at low fire).

SJVAPCD BACT Clearinghouse Guideline 1.1.2 identifies technologically feasible BACT control alternatives as follows:

- 9.0 ppmvd @ 3% O₂ (0.0108 lb/MMBtu/hr) Selective Catalytic Reduction, Low Temperature Oxidizer, or equal and a <30 ppmv NO_x @ 3% O₂ igniter system (if the igniter system is used to heat the boiler at low fire).

SJVAPCD BACT Clearinghouse Guideline 1.1.2 does not identify any alternate basic equipment BACT control alternatives.

Step 2 - Eliminate Technologically Infeasible Options

All of the listed controls are considered technologically feasible for this application.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

- 9.0 ppmvd @ 3% O₂ (0.0108 lb/MMBtu/hr) Selective Catalytic Reduction, Low Temperature Oxidizer, or equal and a <30 ppmv NO_x @ 3% O₂ igniter system (if the igniter system is used to heat the boiler at low fire).
- 9.0 ppmvd @ 3% O₂ (0.0108 lb/MMBtu/hr) Ultra-Low NO_x main burner system and a natural gas or LPG fired igniter system (if the igniter system is used to heat the boiler at low fire).

Step 4 - Cost Effectiveness Analysis

A cost effective analysis must be performed for all control options in the list from step 3 in the order of their ranking to determine the cost effective option with the lowest emissions.

The applicant is proposing that the boiler will be equipped with an ultra low NO_x burner to achieve NO_x emissions of 9 ppmv @ 3% O₂ and will be solely fired on natural gas. This is the highest ranking control option listed in Step 3 above. Therefore, in accordance with District policy APR 1305 (BACT), Section IX.D, a cost effective analysis is not necessary and no further discussion is required.

Step 5 - Select BACT

BACT for the emission unit is determined to be the use of a control device that will limit the NO_x emissions from the boiler to 9 ppmv @ 3% O₂. Olam West Coast Inc. is proposing that the boiler be equipped with an ultra low NO_x burner to achieve NO_x emissions of 9 ppmv @ 3% O₂; therefore, BACT is satisfied.

Unit -14-3 (Natural Gas-Fired Boiler):

II. PM₁₀ Top-Down BACT Analysis

Step 1 - Identify All Possible Control Technologies

SJVAPCD BACT Clearinghouse Guideline 1.1.2 identifies achieved in practice BACT control alternatives as follows:

- Natural gas fuel with LPG backup.

SJVAPCD BACT Clearinghouse Guideline 1.1.2 does not identify any technologically feasible BACT control alternatives.

SJVAPCD BACT Clearinghouse Guideline 1.1.2 does not identify any alternate basic equipment BACT control alternatives.

Step 2 - Eliminate Technologically Infeasible Options

All of the listed controls are considered technologically feasible for this application.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

- Natural gas fuel with LPG backup.

Step 4 - Cost Effectiveness Analysis

A cost effective analysis must be performed for all control options in the list from step 3 in the order of their ranking to determine the cost effective option with the lowest emissions.

The applicant is proposing that the boiler will be solely fired on PUC-quality natural gas fuel. This is the highest ranking control option listed in Step 3 above. Therefore, in accordance with District policy APR 1305 (BACT), Section IX.D, a cost effective analysis is not necessary and no further discussion is required.

Step 5 - Select BACT

BACT for the emission unit is determined to be the use of PUC-quality natural gas fuel. Olam West Coast Inc. is proposing that the boiler is solely fired on PUC-quality natural gas fuel; therefore, BACT is satisfied.

Unit -14-3 (Natural Gas-Fired Boiler):

III. VOC Top-Down BACT Analysis

Step 1 - Identify All Possible Control Technologies

SJVAPCD BACT Clearinghouse Guideline 1.1.2 identifies achieved in practice BACT control alternatives as follows:

- Natural gas fuel with LPG backup.

SJVAPCD BACT Clearinghouse Guideline 1.1.2 does not identify any technologically feasible BACT control alternatives.

SJVAPCD BACT Clearinghouse Guideline 1.1.2 does not identify any alternate basic equipment BACT control alternatives.

Step 2 - Eliminate Technologically Infeasible Options

All of the listed controls are considered technologically feasible for this application.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

- Natural gas fuel with LPG backup.

Step 4 - Cost Effectiveness Analysis

A cost effective analysis must be performed for all control options in the list from step 3 in the order of their ranking to determine the cost effective option with the lowest emissions.

The applicant is proposing that the boiler will be solely fired on PUC-quality natural gas fuel. This is the highest ranking control option listed in Step 3 above. Therefore, in accordance with District policy APR 1305 (BACT), Section IX.D, a cost effective analysis is not necessary and no further discussion is required.

Step 5 - Select BACT

BACT for the emission unit is determined to be the use of PUC-quality natural gas fuel. Olam West Coast Inc. is proposing that the boiler is solely fired on PUC-quality natural gas fuel; therefore, BACT is satisfied.

Unit -16-1 (Natural Gas-Fired IC Engine Cogeneration System):

I. NO_x Top-Down BACT Analysis

Oxides of nitrogen (NO_x) are generated from the high temperature combustion of the natural gas fuel. A majority of the NO_x emissions are formed from the high temperature reaction of nitrogen and oxygen in the inlet air. The rest of the NO_x emissions are formed from the reaction of fuel-bound nitrogen with oxygen in the inlet air.

Step 1 - Identify All Possible NO_x Control Technologies

SJVAPCD BACT Clearinghouse Guideline 3.1.12 identifies BACT control alternatives as follows:

1. 9 ppmvd @ 15% O₂, 0.15 g/bhp-hr, or 0.5 lb/MW/hr – Achieved in Practice
2. 5 ppmv @ 15% O₂ (Selective Catalytic Reduction, or equal) – Technologically Feasible
3. 2 ppmv natural gas fired turbine – Alternate Basic Equipment

Step 2 - Eliminate Technologically Infeasible Options

Per the District BACT Policy, alternate basic equipment only applies to applications for new equipment. The IC engine in this project is an existing engine that is being processed as a new emissions unit for the NSR purposes. Therefore; the alternate basic equipment BACT is not applicable.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. 5 ppmv @ 15% O₂ (Selective Catalytic Reduction, or equal) – Technologically Feasible
2. 9 ppmvd @ 15% O₂, 0.15 g/bhp-hr, or 0.5 lb/MW/hr – Achieved in Practice

Step 4 - Cost Effectiveness Analysis

A cost effective analysis must be performed for all control options in the list from Step 3 in the order of their ranking to determine the cost effective option with the lowest emissions.

The applicant has proposed to meet the more stringent of the two feasible options; therefore, per SJVUAPCD BACT policy, the cost effectiveness analysis is not required.

Step 5 - Select BACT

BACT for NO_x emissions is 5 ppmvd @ 15% O₂, 0.15 g/bhp-hr, or 0.5 lb/MW/hr. The facility has proposed NO_x emissions of 9 ppmvd @ 15% O₂; therefore, BACT is satisfied.

Unit -16-1 (Natural Gas-Fired IC Engine Cogeneration System):

BACT Analysis for VOC Emissions:

II. VOC Top-Down BACT Analysis

Volatile organic compounds (VOC) emissions are generated from the incomplete combustion of the fuel. Some VOCs are emitted from the crankcase of the engine as a result of piston ring blow-by.

Step 1 - Identify All Possible VOC Control Technologies

SJVAPCD BACT Clearinghouse Guideline 3.1.12 identifies BACT control alternatives as follows:

1. 25 ppmvd @ 15% O₂, 0.15 g/bhp-hr, or 0.5 lb/MW/hr – Achieved in Practice

Step 2 - Eliminate Technologically Infeasible Options

There are no technologically infeasible options from the list above.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. 25 ppmvd @ 15% O₂, 0.15 g/bhp-hr, or 0.5 lb/MW/hr – Achieved in Practice

Step 4 - Cost Effectiveness Analysis

A cost effective analysis must be performed for all control options in the list from Step 3 in the order of their ranking to determine the cost effective option with the lowest emissions.

The only control technology alternative in the ranking list from Step 3 has been achieved in practice. Therefore, per SJVUAPCD BACT policy, the cost effectiveness analysis is not required.

Step 5 - Select BACT

BACT for VOC emissions is 25 ppmvd @ 15% O₂, 0.15 g/bhp-hr, or 0.5 lb/MW/hr. The facility has proposed VOC emissions of 0.12 g/bhp-hr; therefore, BACT is satisfied.

Appendix D

HRA Summary and AAQA

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Derek Fukuda – Permit Services
 From: Kou Thao – Technical Services
 Date: 9-3-13
 Facility Name: Olam West Coast Inc
 Location: 47641 W Nees Firebaugh, CA 93622
 Application #(s): C-7748-10-3, 11-3, 13-3, 14-3, 16-1
 Project #: C-1131649

A. RMR SUMMARY

RMR Summary					
Categories	NG dryer (Unit 10-3)	NG dryer (Unit 11-3)	NG dryer (Unit 13-3)	Project Totals	Facility Totals
Prioritization Score	0.025	0.025	0.032	0.082	0.088
Acute Hazard Index	0.000	0.000	0.000	0.000	0.000
Chronic Hazard Index	3.21E-05	3.21E-05	3.22E-05	9.64E-05	9.64E-05
Maximum Individual Cancer Risk (10 ⁻⁶)	9.18E-08	9.18E-08	9.16E-08	2.74E-07	2.74E-07
T-BACT Required?	No	No	No		
Special Permit Conditions?	Yes	Yes	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 # 10-3, 11-3, 13-3, 14-3, & 16-1

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]
2. The combined annual natural gas usage for permit units -10-3, -11-3, -13-3, -14-3, and 16-1 shall not exceed 67,0167.7 mmbtu/yr.

B. RMR REPORT

I. Project Description

Technical Services received a request on May 24, 2013, to perform a Risk Management Review for a proposed modification to a vegetable dehydrating operation. The modification, consist of increasing the combined annual natural gas throughput limit for permit units -10, -11, -13, -14, and -16, to 67,016.7 mmbtu/yr. As per the permitting engineer, this modification will only result in an increase of combustion emissions from units -10, -11, and -13. Therefore, this health risk analysis will only include risks from units -10-3, -11-3 and -13-3.

II. Analysis

Technical Services performed a prioritization using the District's HEARTs database. Since the total facility prioritization score was greater than one, a refined health risk assessment was required. Emissions calculated using Ventura County emission factors for external combustion of natural gas were input into the HEARTs database. The AERMOD model was used, with the parameters outlined below and meteorological data for 2005-2009 from Madera to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the Hot Spots Analysis and Reporting Program (HARP) risk assessment module to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameters Unit 10-3			
Source Type	Point	Location Type	Urban
Stack Height (m)	9.14	Closest Receptor (m)	4572
Stack Diameter. (m)	0.54	Type of Receptor	Residential
Stack Exit Velocity (m/s)	25.18	Max Hours per Year	8760
Stack Exit Temp. (°K)	Ambient	Fuel Type	NG
Burner Rating (MMBtu/hr)	54		

Analysis Parameters Unit 11-3			
Source Type	Point	Location Type	Urban
Stack Height (m)	9.14	Closest Receptor (m)	4572
Stack Diameter. (m)	0.54	Type of Receptor	Residential
Stack Exit Velocity (m/s)	25.18	Max Hours per Year	8760
Stack Exit Temp. (°K)	Ambient	Fuel Type	NG
Burner Rating (MMBtu/hr)	54		

Analysis Parameters Unit 13-3			
Source Type	Point	Location Type	Urban
Stack Height (m)	9.14	Closest Receptor (m)	4572
Stack Diameter. (m)	0.73	Type of Receptor	Residential
Stack Exit Velocity (m/s)	45.97	Max Hours per Year	8760
Stack Exit Temp. (°K)	Ambient	Fuel Type	NG
Burner Rating (MMBtu/hr)	69		

Technical Services also performed modeling for criteria pollutants CO, NO_x, SO_x and PM₁₀; as well as a RMR. The increase in emission rates used for criteria pollutant modeling were 0.46 lb/hr CO, 0.46 lb/hr NO_x, 0.36 lb/hr SO_x, and 0.13 lb/hr PM₁₀. The engineer supplied the combined maximum annual natural gas fuel rate for the all the boilers used during the analysis.

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

Diesel ICE	1 Hour	3 Hours	8 Hours.	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO _x	Pass ¹	X	X	X	Pass
SO _x	Pass	Pass	X	Pass	Pass
PM ₁₀	X	X	X	Pass ²	Pass ²
PM _{2.5}	X	X	X	Pass ²	Pass ²

*Results were taken from the attached PSD spreadsheet.

¹The 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 procedures²The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

III. Conclusion

The acute and chronic indices are below 1.0 and the cancer risk factor associated with the project is less than 1.0 in a million. **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 this 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.

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

IV. Attachments

- A. RMR request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Toxic emissions summary
- D. Prioritization score
- E. Facility Summary

APPENDIX E

CEQA GHG: Project Specific Analysis

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

Best Performance Standard (BPS) x.x.xx

Date: September 11, 2013

Class	Dryers and Dehydrators
Category	Onion and Garlic Dehydrators
Best Performance Standard	Electric motors driving dryer fans shall have an efficiency meeting the standards of the National Electrical Manufacturer's Association (NEMA) for "premium efficiency" motors.
Percentage Achieved GHG Emission Reduction Relative to Baseline Emissions	2.4%

District Project Number	C-1131649
Evaluating Engineer	Derek Fukuda
Lead Engineer	Joven Refuerzo
Public Notice: Start Date	September 11, 2013
Public Notice: End Date	October 11, 2013
Determination Effective Date	TBD

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

DRAFT Best Performance Standard (BPS) x.x.xx

Class	Gaseous Fuel-Fired Boilers
Category	<i>Existing Boilers (Retrofit), Fired Exclusively on Natural Gas or LPG</i>
Best Performance Standard	<p><i>Applicability Note: Existing Boilers (Retrofit) fired with gaseous fuels other than natural gas or LPG (either exclusively or mixed with natural gas or LPG) and which meet the following standards shall be considered to meet BPS for their respective category.</i></p>
	<p>Boilers meeting this Best Performance Standard must comply with all three elements of this BPS (items 1, 2 and 3 listed below) where applicable:</p> <ol style="list-style-type: none"> 1. The boiler shall be either equipped with an economizer system meeting the following design criteria or shall be equipped with an approved alternate heat recovery system which will collectively provide heat recovery from the boiler flue gas which is equivalent. Equivalent heat recovery systems may utilize recovered heat for purposes other than steam generation provided such uses offset other fuel usage which would otherwise be required. <ol style="list-style-type: none"> A. Except for boilers subject to the requirements of item B below, the economizer system shall be designed at maximum boiler firing rate to either <ol style="list-style-type: none"> 1) reduce the temperature of the economizer flue gas outlet to a value no greater than 20°F above the temperature of the boiler feed water at maximum firing rate, or 2) reduce the final temperature of the boiler's flue gas to a temperature no greater than 200°F. <p><i>Note: For purposes of this BPS, feedwater temperature is defined as the temperature of the water stream delivered to the boiler from the deaerator or feedwater tank.</i></p> B. For boilers with rated steam pressure less than 75 psig and a water supply temperature of 170°F or greater, the boiler shall be designed, in lieu of the requirements of item A above, to achieve a flue gas temperature no greater than the sum of the steam saturation temperature (°F at the steam drum operating pressure) plus 100°F. <p><i>Note: For purposes of this BPS, water supply temperature is defined as the weighted average temperature of the combined makeup water and the recovered condensate delivered to the boiler upstream of any deaerator or other feedwater preheater but after benefit of any other heat recovery operations which recover waste heat from the boiler by transfer to the boiler water supply (such as boiler blowdown heat recovery).</i></p>

2. Electric motors driving combustion air fans or induced draft fans 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 speed control or equivalent for control of flow through the fan.
3. For boilers with rated fired duty in excess of 20 MMBtu/hr and a boiler blowdown rate exceeding 8 % of steam production, the boiler shall be equipped with an automatic boiler blowdown control system which will minimize boiler blowdown while controlling dissolved solids in the boiler water at an optimum level.

Percentage Achieved GHG Emission Reduction Relative to Baseline Emissions	4.1%
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District Project Number	C-1100388
Evaluating Engineer	Manuel Salinas
Lead Engineer	Joven Refuerzo
Public Notice: Start Date	April 12, 2012
Public Notice: End Date	May 11, 2012
Determination Effective Date	

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

Best Performance Standard (BPS) x.x.xx

Date: November 1, 2011

Class and Category	<p style="text-align: center;">Cogeneration – Topping Cycle Plants (not including Combined Cycle units) <u>Subcategories:</u></p> <ol style="list-style-type: none"> 1. Natural Gas-Fired IC Engines 2. Natural Gas-Fired Turbines (not including oilfield cogeneration units) 3. Oilfield Natural Gas-Fired Turbines
Best Performance Standard	<ol style="list-style-type: none"> 1. <u>Natural Gas-Fired IC Engines</u> Emissions Performance Design Standard of 700 lb-CO₂e per MWh of Useful Energy at ISO Conditions 2. <u>Natural Gas-Fired Turbines (not including oilfield cogeneration units)</u> Emissions Performance Design Standard of 800 lb-CO₂e per MWh of Useful Energy at ISO Conditions 3. <u>Oilfield Natural Gas-fired Turbines</u> Emissions Performance Design Standard of 800 lb-CO₂e per MWh of Useful Energy at ISO Conditions
Percentage Achieved GHG Emission Reduction Relative to Baseline Emissions	<ol style="list-style-type: none"> 1. <u>Natural Gas-Fired IC Engines:</u> 36.4% 2. <u>Natural Gas-Fired Turbines (not including oilfield cogeneration units):</u> 27.3% 3. <u>Oilfield Natural Gas-Fired Turbines:</u> 27.3%

District Project Number	C1100393
Evaluating Engineer	James Harader
Lead Engineer	Rupi Gill
Initial Public Notice Date	April 15, 2010
Final Public Notice Date	May 10, 2010
Determination Effective Date	November 1, 2011

GHG Calculations

Basis and Assumptions

- The increase in GHG emissions can be from any of the units included in the SLC.
- NO_x emissions will be used as the limiting factor when determining the increase in GHG emissions from the increase in the SLC.
- Emission factors and global warming potentials (GWP) are taken from the California Climate Change Action Registry (CCAR), Version 3.1, January, 2009 (Appendix C, Tables C.7 and C.8):

CO₂ 53.06 kg/MMBtu (HHV) natural gas (116.7 lb/MMBtu)

CH₄ 0.005 kg/MMBtu (HHV) natural gas (0.011 lb/MMBtu)

N₂O 0.0001 kg/MMBtu (HHV) natural gas (0.00022 lb/MMBtu)

Total = 117 lb-CO₂e/MMBtu = 0.0529 metric ton-CO₂e/MMBtu

Calculations

Current SLC NO_x = 19,975 lb/year

Proposed SLC NO_x = 23,996 lb/year

Change in NO_x SLC = 4,021 lb/year

NO_x EF (dryers) = 0.06 lb/MMBtu

NO_x EF (boiler) = 0.008 lb/MMBtu

NO_x EF (ICE) = 0.06 g/hp-hr

Since the NO_x EF from the boiler is the lowest of the units in the SLC, the maximum operation of the boiler will be used to determine GHG emissions.

Max fuel usage from the boiler = (29.4 MMBtu/hr) x (8,760 hr/year)
= 257,544 MMBtu/year

PE from boiler max usage = (0.008 lb-NO_x/MMBtu) x (257,544 MMBtu/year)
= 2,060 lb-NO_x/year

Since the maximum NO_x emissions from the boiler are not high enough to meet the proposed increase in the SLC, additional units in the SLC will be used to determine the GHG emissions. Since the NO_x EF from the dryers are the second lowest of the units in the SLC, the operation of the dehydrators will be used to determine GHG emissions.

Remaining NO_x increase = (4,021 lb-NO_x/year) – (2,060 lb-NO_x/year)
= 1,961 lb-NO_x/year

Fuel usage of dehydrators = (1,961 lb-NO_x/year) ÷ (0.06 lb-NO_x/MMBtu)
= 32,683 MMBtu/year

Maximum total fuel usage increase based on NO_x PE increase:

$$\begin{aligned} &= (257,544 \text{ MMBtu/year}) + (32,683 \text{ MMBtu/year}) \\ &= 290,227 \text{ MMBtu/year} \end{aligned}$$

$$\begin{aligned} \text{Total increase in GHG} &= (290,227 \text{ MMBtu/year}) \times (0.0529 \text{ metric ton-CO}_2\text{e/MMBtu}) \\ &= \mathbf{15,353 \text{ metric tons/year}} \end{aligned}$$

This exceeds the District's threshold of 230 metric tons of CO₂ equivalent. To address the potential increase in GHG emissions, the applicant is proposing to comply with the best performance standard (BPS) developed by the District for boilers, cogeneration operations, and onion and garlic dehydrators.

Units -10-3, -11-3, and -13-3 (Onion and Garlic Dehydrator):

BPS Analysis

Step 1 - Identify BPS

Class: Dryers and Dehydrators

Category: Onion and Garlic Dehydrators

Best Performance Standards:

Electric motors driving dryer fans shall have an efficiency meeting the standards of the National Electrical Manufacturer's Association (NEMA) for "premium efficiency" motors.

Step 2 - Select BPS

- The onion and garlic dehydrators will be equipped with premium efficiency motors.

Step 3 – BPS Conditions

The following conditions will be included on the permit to ensure compliance with BPS requirements:

- Electric motors driving combustion air fans or induced draft fans shall have an efficiency meeting the standards of the National Electric Manufacturer's Association (NEMA) for "premium efficiency" motors and shall each be operated with a variable speed control or equivalent for control of flow through the fan. [Public Resources Code 21000-21177: California Environmental Quality Act]

Unit -14-3 (Natural Gas-Fired Boiler):

BPS Analysis

Step 1 - Identify BPS

Class: Gaseous Fuel-Fired Boilers

Category: Existing Boilers (Retrofit), Fired Exclusively on Natural Gas or LPG

Best Performance Standards:

Boilers meeting this Best Performance Standard must comply with all three elements of this BPS (items 1, 2, and 3 listed below) where applicable.

1. The boiler shall be either equipped with an economizer system meeting the following design criteria or shall be equipped with an approved alternate heat recovery system which will collectively provide heat recovery from the boiler flue gas which is equivalent:
 - A. Except for boilers subject to the requirements of item B below, the economizer system shall be designed at maximum boiler firing rate to either 1) reduce the temperature of the economizer flue gas outlet to a value no greater than 20°F above the temperature of the boiler feed water at maximum firing rate, or 2) reduce the final temperature of the boiler's flue gas to a temperature no greater than 200°F.
 - B. For boilers with rated steam pressure less than 75 psig and a water supply temperature of 170°F or greater, the boiler shall be designed, in lieu of the requirements of item A above, to achieve a flue gas temperature no greater than the sum of the steam saturation temperature (°F at the steam drum operating pressure) plus 100°F.
2. Electric motors driving combustion air fans or induced draft fans 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 speed control or equivalent for control of flow through the fan.
3. For boilers with rated steam pressure less than 75 psig and a water supply temperature of 170°F or greater, the boiler shall be designed, in lieu of the requirements of item A above, to achieve a flue gas temperature no greater than the sum of the steam saturation temperature (°F at the steam drum operating pressure) plus 100°F.

Step 2 - Select BPS

- The boiler will be equipped with an economizer designed to meet the specifications in element 1 of the BPS.
- The boiler will be equipped with premium efficiency motors.
- The boiler blowdown rate exceeds 8% of the steam production. The proposed project will include an automatic boiler blowdown control system to minimize blowdown and control dissolved solids in the boiler water.

Step 3 – BPS Conditions

The following conditions will be included on the permit to ensure compliance with BPS requirements:

- The boiler shall be equipped with an economizer system that consists of, at a minimum, a single stage economizer section which will recover energy from the boiler flue gas by heat exchange with the boiler feed water. The economizer system shall be designed at maximum boiler firing rate to either 1) reduce the temperature of the economizer flue gas outlet to a value no greater than 20 deg F above the temperature of the boiler feed water at maximum firing rate, or 2) heat the boiler feed water to a temperature which is no less than 30 deg F below the steam temperature at the steam drum. [Public Resources Code 21000-21177: California Environmental Quality Act]
- Electric motors driving combustion air fans or induced draft fans shall have an efficiency meeting the standards of the National Electric Manufacturer's Association (NEMA) for "premium efficiency" motors and shall each be operated with a variable speed control or equivalent for control of flow through the fan. [Public Resources Code 21000-21177: California Environmental Quality Act]
- The boiler shall be equipped with an automatic boiler blowdown control system which minimizes boiler blowdown while controlling dissolved solids in the boiler water at an optimum level. [Public Resources Code 21000-21177: California Environmental Quality Act]

Unit -16-1 (Natural Gas-Fired IC Engine Cogeneration System):

BPS Analysis

Step 1 - Identify BPS

Class: Cogeneration

Category: Topping Cycle Plants (Natural Gas-Fired IC Engines)

Best Performance Standards:

Emissions Performance Design Standard of 700 lb-CO₂e per MWh of Useful Energy at ISO Conditions.

Step 2 - Select BPS

The amount of CO₂e emitted by the natural gas-fired IC engine cogeneration system is calculated below:

Maximum hp rating: 1,877 hp

$$\begin{aligned}\text{CO}_2\text{e Emissions (metric ton-CO}_2\text{e/hr)} &= (1,877 \text{ hp}) \times (0.0025425 \text{ MMBtu/hp-hr}) \times (117 \text{ lb-CO}_2\text{e/MMBtu}) \\ &= 558 \text{ lb-CO}_2\text{e/hr}\end{aligned}$$

The useful energy of a cogeneration system consists of the useful thermal energy and the useful mechanical energy. The useful energy of this unit is calculated below:

Useful Mechanical Energy Conversion Factor: 1 MWh / 1,341 hp-hr

Useful Thermal Energy Conversion Factor: 1 MWh / 3.412 MMBtu

$$\begin{aligned}\text{Useful Mechanical Energy (MWh)} &= (1,877 \text{ hp-hr}) / 1,341 \text{ hp-hr} \\ &= 1.4 \text{ MWh}\end{aligned}$$

Assuming there is no thermal useful energy, the emissions performance design standard (EPDS) of this IC engine cogeneration system is:

$$\text{EPDS} = 558 \text{ lb-CO}_2\text{e/hr} \div 1.4 \text{ MWh} = \mathbf{399 \text{ lb-CO}_2\text{e/MWh}}$$

As seen in the calculation above, the IC engine cogeneration system in this project will meet the emissions performance design standard of the BPS.

Step 3 – BPS Conditions

Since the IC engine cogeneration system in this project has been shown to meet the emissions performance design standard of the BPS, no additional permit conditions are necessary.