San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

NOV 0 3 2015

Mr. Nazer Ali
Olam West Coast Inc
205 E. River Park Circle, Suite 310
Fresno, CA 93720

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # C-7748
Project # C-1152363

Dear Mr. Ali:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. This project authorizes the installation of a new parsley milling operation and a new vegetable dehydrator and an increase in the combined annual emissions limit.

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authorities to Construct with Certificates of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

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

Thank you for your cooperation in this matter.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Enclosures

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

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San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Modification of Vegetable Dehydrating Operation

Facility Name:	Olam West Coast Inc	Date:	October 27, 2015
Mailing Address:	205 E. River Park Circle, Suite 310 Fresno, CA 93720	Engineer: Lead Engineer:	Jesse A. Garcia Joven Refuerzo
Contact Person:	Nazer Ali	Roger Isom	
Telephone:	(559) 256-6235	(559) 455-9272	
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Application #(s):	C-7748-10-10, -11-10, -12-2, -13-10, -14-9, -16-7, -20-1, -21-0, -22-0		
Project #:	C-1152363		
Deemed Complete:	October 20, 2015		

I. Proposal

Olam West Coast Inc (Olam) is applying for Authority to Construct (ATC) permits for the modifications to four existing vegetable dehydrating lines and one natural gas-fired IC engine listed under Permits to Operate (PTOs) C-7748-10-6, -11-6, -12-1, -13-6, and -16-3 (see Appendix II) respectively. The proposed modifications consist of the following:

- Relocate the vegetable milling operation that was permitted as N-1787-12 to Olam's facility in Firebaugh and proposed under ATC C-7748-21-0.
- Install a new natural gas-fired vegetable dehydration line E proposed under ATC C-7748-22-0.
- Relocate steam heated vegetable dehydrator line C, C-7748-12, within the same stationary source and within the same building and correct the differential pressure gauge reading range from 2" – 7" to 0.5" – 8" of water column.
- Increase the annual combined emissions limit on units C-7748-10, -11, -13, -16, to 36,163 lb-NOx/year, 1,796 lb-SOx/year, 8,770 lb-PM10/year, 129,622 lb-CO/year and 7,770 lb-VOC/year (see Section VII.C. for additional details).
- Install a new diesel-fired emergency IC engine, proposed under ATC C-7748-20-1. Due to ATC C-7748-20-0 not being implemented yet, and because the engine was initially permitted assuming the facility was not a major source, the following condition will be included on the ATC issued in this project:
    - Upon implementation of the modification and startup of the equipment authorized by this Authority to Construct (ATC), ATC C-7748-20-0 shall be cancelled. [District Rule 2201]

Additionally, the applicant proposes to remove the 29.4 MMBtu/hr boiler, listed under permit C-7748-14-5, from the existing specific limiting condition (SLC) included on

permits C-7748-10-6, -11-6, -12-1, -13-6, and -16-3. Pursuant to District Policy APR 1420, "NSR Calculations for Units with Specific Limiting Conditions", this separate permitting action solely to remove the unit from the SLC, because the unit is specifically listed in the existing SLC condition, is not an NSR modification.

Olam has received their Title V Permit. This modification can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Olam must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 1081 Source Sampling (12/16/93)
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 4304 Equipment Tuning Procedure for Boilers, Steam Generators and Process Heaters (10/19/05)
Rule 4305 B0oilers, Steam Generators and Process Heaters – Phase II (8/21/03)
Rule 4306 Boilers, Steam Generators and Process Heaters – Phase III (3/17/05)
Rule 4309 Dryers, Dehydrators, and Ovens (12/15/05)
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

This facility is located at 47641 W. Nees in Firebaugh, CA. The District has verified that this equipment will not be located within 1000' of a k-12 school. Therefore, the public notification requirements of California Health and Safety Code 42301.6 are not applicable to this project.

IV. Process Description

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

Vegetable Dehydration Operation Lines A, B, C, and D (Units -10, -11, -12, 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 is heated with natural gas burners and the last two stages are heated by steam coils. The small vegetable dryer, unit -12, 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 and Electrical Generator (Unit -16):

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

Emergency Diesel-Fired IC Engine (Unit -20)

The emergency standby engine powers an electrical generator. Other than emergency standby operation, the engine may be operated up to 50 hours per year for maintenance and testing purposes.

Vegetable Milling Operation (Unit -21):

The vegetables are pneumatically transferred from the dryers to brush reel brush #1 then is pneumatically transferred to brush reel #2. After the brush reels the vegetables are sent to the hopper. From the hopper the vegetables are transferred to the separator and roller/breaker to separate the leaves from the stems.

The vegetable are then sent to the pneumatic separation system with six Accrodent rotary separators. The separators and conveyor transfer points have dust collection hoods. The vegetable are then transferred to the third separation system.

The third system is a gravity separation system. The system consists of six Olivers gravity separators. The vegetables are ready to go the packaging line. The gravity tables and conveyors serving the gravity tables have dust collection hoods.

Vegetable Dehydration Operation Line E (Unit -22):

The proposed unit operates in similar fashion to the existing vegetable dehydration operation lines described above.

V. Equipment Listing

Pre-Project Equipment Descriptions:

C-7748-10-6: 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE A) WITH MAXON MODEL SERIES A NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES

C-7748-11-6: 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE B) WITH MAXON MODEL SERIES A NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES

C-7748-12-1: VEGETABLE DEHYDRATION OPERATION (LINE C) WITH STEAM PROVIDED FROM UNIT -14 AND SERVED BY A 12,000 CFM SAUNCO MODEL 10-SIFT-100 BAGHOUSE DUST COLLECTOR WITH PRE-DEHYDRATION EQUIPMENT AND POST-DEHYDRATION EQUIPMENT (ASPIRATORS & NIPPLE SEPARATORS)

C-7748-13-6: 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

C-7748-14-5: 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-7748-16-3: 1877 HP DEUTZ MODEL TBG620V16 NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A MIRATECH SCR SYSTEM, POWERING A 1350 KW GENERATOR

Proposed Modification:

C-7748-10-10: MODIFICATION OF 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE A) WITH MAXON MODEL SERIES A NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES: INCREASE THE ANNUAL COMBINED EMISSIONS LIMIT

C-7748-11-10: MODIFICATION OF 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE B) WITH MAXON MODEL SERIES A NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES: INCREASE THE ANNUAL COMBINED EMISSIONS LIMIT

C-7748-12-2: MODIFICATION OF VEGETABLE DEHYDRATION OPERATION (LINE C) WITH STEAM PROVIDED FROM UNIT -14 AND SERVED BY A 12,000 CFM SAUNCO MODEL 10-SIFT-100 BAGHOUSE DUST COLLECTOR WITH PRE-DEHYDRATION EQUIPMENT AND POST-DEHYDRATION EQUIPMENT (ASPIRATORS & NIPPLE SEPARATORS): RELOCATE WITHIN SAME STATIONARY SOURCE, INCREASE THE ANNUAL COMBINED EMISSIONS LIMIT AND CORRECT DIFFERENTIAL PRESSURE GAUGE READING RANGE PER MANUFACTURER'S SPECIFICATIONS

C-7748-13-10: 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 ANNUAL COMBINED EMISSIONS LIMIT

C-7748-14-9: 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: REMOVE FROM THE ANNUAL COMBINED EMISSIONS LIMIT

C-7748-16-7: 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 EMISSIONS LIMIT

C-7748-20-1: 131 BHP (INTERMITTENT) GENERAC MODEL SD080 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR

C-7748-21-0: DRY VEGETABLE PROCESSING OPERATION CONSISTING OF: PNEUMATIC CONVEYING SYSTEM; THE STEM/LEAF SEPARATOR

SYSTEM; AND THE GRAVITY SEPARATION SYSTEM ALL SERVED BY A MAC 36FRB7 BAGHOUSE AND A SAUNCO 10-SIFT-100 BAGHOUSE

C-7748-22-0: 42.15 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE E) WITH THREE 9 MMBTU/HR MAXON MODEL NP-LE, ONE 6.9 MMBTU/HR MAXON MODEL NP-LE AND THREE 2.75 MMBTU/HR MAXON MODEL NP-LE NATURAL GAS-FIRED BURNERS

Post Project Modification:

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

C-7748-11-10: 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE B) WITH MAXON MODEL SERIES A NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES

C-7748-12-2: VEGETABLE DEHYDRATION OPERATION (LINE C) WITH STEAM PROVIDED FROM UNIT -14 AND SERVED BY A 12,000 CFM SAUNCO MODEL 10-SIFT-100 BAGHOUSE DUST COLLECTOR WITH PRE-DEHYDRATION EQUIPMENT AND POST-DEHYDRATION EQUIPMENT (ASPIRATORS & NIPPLE SEPARATORS)

C-7748-13-10: 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

C-7748-14-9: 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-7748-16-7: 1877 HP DEUTZ MODEL TBG620V16 NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A MIRATECH SCR SYSTEM, POWERING A 1350 KW GENERATOR

C-7748-20-1: 131 BHP (INTERMITTENT) GENERAC MODEL SD080 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR

C-7748-21-0: DRY VEGETABLE PROCESSING OPERATION CONSISTING OF: PNEUMATIC CONVEYING SYSTEM; THE STEM/LEAF SEPARATOR SYSTEM; AND THE GRAVITY SEPARATION SYSTEM ALL SERVED BY A MAC 36FRB7 BAGHOUSE AND A SAUNCO 10-SIFT-100 BAGHOUSE

C-7748-22-0: 42.15 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE E) WITH THREE 9 MMBTU/HR MAXON MODEL NP-LE, ONE 6.9 MMBTU/HR MAXON MODEL NP-LE AND THREE 2.75 MMBTU/HR MAXON MODEL NP-LE NATURAL GAS-FIRED BURNERS

VI. Emission Control Technology Evaluation

Units -10, -11, -13, -22 (Vegetable Dehydration Lines A, B, D and E):

There will be NOx, VOC, CO, SOx, and PM_{10} emissions form the combustion of natural gas in the dehydrators.

Unit -12 (Vegetable Dehydration Line C):

There are no changes in control methods proposed by the applicant. The emission control device is described in the engineering evaluation for project number C-1084411. No further discussion is necessary.

Unit -14 (Natural Gas-Fired Boiler):

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.

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

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 NOx emissions by injecting a urea solution (NH_2CONH_2) into the exhaust gas stream upstream of a catalyst to form ammonia (NH_3). Nitrogen oxides, NH_3, and oxygen (O_2) react on the surface of the catalyst to form molecular nitrogen (N_2) and water (H_2O). SCR is capable of over 90 percent NOx 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 PM_{10} emissions versus an uncontrolled crankcase vent.

Unit -20 (Emergency IC Engine):

The applicant has proposed to install a Tier 3 certified diesel-fired IC engine that is fired on very low-sulfur diesel fuel.

The proposed engine(s) meet the latest Tier Certification requirements; therefore, the engine(s) meets the latest ARB/EPA emissions standards for diesel particulate matter, hydrocarbons, nitrogen oxides, and carbon monoxide (see Appendix III for a copy of the emissions data sheet and/or the ARB/EPA executive order).

The use of very low-sulfur diesel fuel (0.0015% by weight sulfur maximum) reduces SO_X emissions by over 99% from standard diesel fuel.

Unit -21 (Parsley Milling Operation):

PM10 emissions from the milling operation will be controlled using baghouses. The manufacturers guarantee a 99% control efficiency; therefore, the following conditions will be included on ATC C-7748-21-0:

- Each baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
- Each baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
- {73} Material removed from the baghouse(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
- Replacement bags numbering at least 10% of the total number of bags in the baghouse shall be maintained on the premises. [District Rule 2201]
- Each baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. Each gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
- Each differential pressure gauge reading range shall be established per manufacturer's recommendation at time of startup inspection. [District Rule 2201]
- Each differential operating pressure shall be monitored and recorded on each day that the baghouses operate. [District Rule 2201]

- Records of all maintenance of the baghouses, including all change outs of filter media, shall be maintained. [District Rule 2201]

VII. General Calculations

A. Assumptions

Units -10, -11, and -13 (Existing 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 existing dehydration lines shall not exceed 59,255 tons/year (existing permit).
- The pre and post-project combined daily product processed in the three existing dehydration lines shall not exceed 375 tons/day (existing permit).
- The pre-project combined annual potential emissions from three dehydration lines, the natural gas-fired boiler, and the natural gas-fired IC engine shall not exceed 21,936 lb-NOx/year, 653 lb-SOx/year, 3,152 lb-PM_{10}/year, 17,562 lb-CO/year, and 6,473 lb-VOC/year (See Section VII.C.1).
- The post-project combined annual potential emissions from three dehydration lines, the new natural gas-fired dehydration line, and the natural gas-fired IC engine shall not exceed 36,163 lb-NOx/year, 1,796 lb-SOx/year, 8,770 lb-PM_{10}/year, 129,622 lb-CO/year, and 7,770 lb-VOC/year (per applicant, see correspondence on 10/1/15 from Roger Isom).

Unit -12 (Vegetable Dehydration Line C):

- The daily product processed in the dehydration line shall not exceed 90 tons/day (per applicant).
- The annual product processed in the dehydration line shall not exceed 7,000 tons/year (per applicant).
- PM10 is the only pollutant of concern.

Unit -14 (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 three dehydration lines, the natural gas-fired boiler, and the natural gas-fired IC engine shall not exceed 21,936 lb-NOx/year, 653 lb-SOx/year, 3,152 lb-PM_{10}/year, 17,562 lb-CO/year, and 6,473 lb-VOC/year (See Section VII.C.1).
- The post-project annual potential emissions from the natural gas-fired boiler alone, shall not exceed 2,060 lb-NOx/year, 734 lb-SOx/year, 3,606 lb-

PM_{10}/year, 15,453 lb-CO/year, and 6,696 lb-VOC/year (per applicant – see Section VII.C.2).

Unit -16 (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 Project C-1100957).
- Engine fuel consumption is 12,576 scf/hr (per applicant in Project C-1100957).
- Ammonia slip is 10 ppm @ 15% O_2.
- The daily emissions are based on 24 hours per day (existing permit).
- The IC engine will be limited to 180 days of operation per year (existing permit).
- The pre-project combined annual potential emissions from three dehydration lines, the natural gas-fired boiler, and the natural gas-fired IC engine shall not exceed 21,936 lb-NOx/year, 653 lb-SOx/year, 3,152 lb-PM_{10}/year, 17,562 lb-CO/year, and 6,473 lb-VOC/year (See Section VII.C.1).
- The post-project combined annual potential emissions from three dehydration lines, the new natural gas-fired dehydration line, and the natural gas-fired IC engine shall not exceed 36,163 lb-NOx/year, 1,796 lb-SOx/year, 8,770 lb-PM_{10}/year, 129,622 lb-CO/year, and 7,770 lb-VOC/year (per applicant, see correspondence on 10/1/15 from Roger Isom).

Unit -20 (Emergency IC Engine):

Emergency operating schedule:	24 hours/day
Non-emergency operating schedule:	50 hours/year
Density of diesel fuel:	7.1 lb/gal
EPA F-factor (adjusted to 60 °F):	9,051 dscf/MMBtu
Fuel heating value:	137,000 Btu/gal
BHP to Btu/hr conversion:	2,542.5 Btu/bhp-hr
Thermal efficiency of engine:	commonly ≈ 35%
PM_{10} fraction of diesel exhaust:	0.96 (CARB, 1988)

Unit -21 (Vegetable Milling Operation):

- The daily product processed in the milling operation shall not exceed 30 tons/day (per applicant).
- The annual product processed in the milling operation shall not exceed 3,000 tons/year (per applicant).
- PM10 is the only pollutant of concern.

Unit -22 (Vegetable Dehydration Line E):

- 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)
- PM10 emissions from handling of the material are expected to be negligible since the product enters the dehydrator with a high moisture content and when it leaves the dehydrator, it is processed in the milling operation which has the transfer points served by a baghouse; therefore, no PM10 emissions (other than from combustion) are expected solely from the dehydration of the vegetable.
- The post-project combined annual potential emissions from three dehydration lines, the new natural gas-fired dehydration line, and the natural gas-fired IC engine shall not exceed 36,163 lb-NOx/year, 1,796 lb-SOx/year, 8,770 lb-PM_{10}/year, 129,622 lb-CO/year, and 7,770 lb-VOC/year (per applicant, see correspondence on 10/1/15 from Roger Isom).

B. Emission Factors

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

PM_{10} Material Handling (lb/ton) = **0.005 lb-PM_{10}/ton material processed (from current permit)**

Existing Dehydrator Combustion Emission Factors		
Pollutant	**Emission Factor (lb/MMBtu)**	**Source**
NOx	0.06 (5.25 ppmv @ 19% O2)	Current permit
SOx	0.00285	District Policy APR 1720
PM10	0.014	Current permit
CO	0.06 (8.62 ppmv @ 19% O2)	Current permit
VOC	0.011[1]	Proposed by Applicant

[1] Pursuant to District Policy APR 1110, Use of Revised Generally Accepted Emission Factors, the applicant proposed that the 0.026 lb-VOC/MMBtu emission factor listed is too high. The basis of their statement is that when comparing the existing emission factor that was derived from a source test of Sunsweet Dryer Inc's fruit dehydration operation conducted in July and August of 1991 to AP-42's emission factor solely for natural gas combustion in Table 1.4-2 of 0.0055 lb-VOC/MMBtu, it can be concluded that the existing emission factor most likely includes volatiles emitted from the fruit itself which is possible as is stated in AP-42 Section 9.8.2.3. The District and the applicant have no data to assume that VOCs will be emitted from the vegetables (onions, garlic and parsley) to be dehydrated; therefore the emission factor will be revised and updated. To be conservative, the AP-42 emission factor for natural combustion is doubled to ensure a margin of compliance: 0.0055 lb-VOC/MMBtu x 2 = 0.011 lb-VOC/MMBtu.

Unit -12 (Dehydrator Line C):

Since heat is provided to this dehydration line from the existing boiler, the only emissions are PM10 emissions from material handling.

PM_{10} Material Handling (lb/ton) = **0.0005 lb-PM_{10}/ton material processed (from current permit)**

Unit -14 (Boiler):

Pursuant to District Policy APR 1110 (Use of Revised EFs), the VOC EF will be revised to the generally accepted EF of 0.0055 lb-VOC/MMBtu in AP-42 (07/98) Table 1.4-2

Pollutant	Pre and Post Project Emission Factors		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
PM10	0.014 lb-PM10/MMBtu		Current Permit
CO	0.06 lb-CO/MMBtu	81.2 ppmvd CO (@ 3%O_2)	Current Permit
VOC	0.0055 lb-VOC/MMBtu		AP-42 (07/98) Table 1.4-2

Unit -16 (IC Engine Cogeneration System):

Pollutant	Emission Factors (EF)		Source
NO_X	0.06 g/bhp-hr	5 ppmvd NO_x @ 15%O_2 (0.0184 lb/MMBtu)*	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	71 ppmvd CO @ 15%O_2 (0.1592 lb/MMBtu)*	Current Permit
VOC	0.15 g/bhp-hr	--	Current Permit
NH3	--	10 ppm	Current Permit

* Typical Conversion:
5 parts/10^6 parts x (20.9/(20.9 – 15)) x 8710 dscf/MMBtu x 46 lb/lb-mol x (1/379.5 scf/lb-mol) x (459.67+60)/(459.67+68) = 0.0184 lb-NO_x/MMBtu

Unit -20 (Emergency IC Engine):

Emission Factors		
Pollutant	Emission Factor (g/bhp-hr)	Source
NO_X	2.66	Current Permit
SO_X	0.0051	Mass Balance Equation Below
PM_{10}	0.12	Current Permit
CO	0.7	Current Permit
VOC	0.14	Current Permit

$$\frac{0.000015\ lb-S}{lb-fuel} \times \frac{7.1\ lb-fuel}{gallon} \times \frac{2\ lb-SO_2}{1\ lb-S} \times \frac{1\ gal}{137{,}000\ Btu} \times \frac{1\ bhp\ input}{0.35\ bhp\ out} \times \frac{2{,}542.5\ Btu}{bhp-hr} \times \frac{453.6\ g}{lb} = 0.0051\ \frac{g-SO_x}{bhp-hr}$$

Unit -21 (Vegetable Milling Operation):

Milling Operation Emission Factors		
Pollutant	**Emission Factor (lb/ton)**	**Source**
PM10	0.0335*	AP-42 Table 9.9.1-2 (7/98)

* Per Rule 2201, PM10 = ½ * PM; therefore, PM10 = ½ * 0.067 lb/ton

Unit -22 (Dehydrator Line E):

Proposed Dehydrator Combustion Emission Factors		
Pollutant	**Emission Factor (lb/MMBtu)**	**Source**
NOx	0.06 (5.25 ppmv @ 19% O2)	Proposed by Applicant
SOx	0.00285	District Policy APR 1720
PM10	0.014	Proposed by Applicant to be consistent with existing dehydrators
CO	0.2924 (42 ppmv @ 19% O2)	Burner Manufacturer
VOC	0.011	Proposed by Applicant

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Unit -12 (Vegetable Dehydration Line C):

Vegetable dehydration line C uses heat from the facility's natural gas-fired boiler (unit -14-0) to dry the product that it processes. Since all potential emissions from the natural gas-fired boiler will be evaluated separately, the only potential emissions from this unit are the handling of the products being processed. Potential emissions are calculated below.

Daily PE1 = (90 tons-product/day) * (0.0005 lb-PM_{10}/ton-product)

= 0.05 lb PM_{10}/day **=> 0.0 lb PM_{10}/day**

Annual PE1 = (7,000 tons/year) * (0.0005 lb-PM_{10}/ton-product)
= 4 lb PM_{10}/year

Pre-Project Potential to Emit (PE1)		
	Daily Emissions (lb/day)	Annual Emissions (lb/year)
PM_{10}	0.0	4

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

As stated in Section I, unit -14 is not being modified; therefore, the emissions for this unit are shown for reference purposes only.

Pollutant	Daily PE1			
	EF1 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/day)	Daily PE1 (lb/day)
NO_X	0.008	29.4	24	5.6
SO_X	0.00285	29.4	24	2.0
PM_{10}	0.0140	29.4	24	9.9
CO	0.060	29.4	24	42.3
VOC	0.0055	29.4	24	3.9

Pollutant	Annual PE1			
	EF1 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/year)	Annual PE1 (lb/year)
NO_X	0.008	29.4	8,760	2,060
SO_X	0.00285	29.4	8,760	734
PM_{10}	0.0140	29.4	8,760	3,606
CO	0.060	29.4	8,760	15,453
VOC	0.0055	29.4	8,760	1,416

Units C-7748-10, -11, -13, and -16 (Vegetable Dehydration Lines A, B and E and Natural Gas-Fired IC Engine Cogeneration System):

Daily Emission:

The pre project daily potential emissions from the dehydrators, and IC engine were taken from calculations performed in Projects C-1092836, C-1100957, and C-1131780. 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)	NH3 (lb/day)
C-7748-10	77.8	3.7	20.0	77.8	14.3	0
C-7748-11	77.8	3.7	20.0	77.8	14.3	0
C-7748-13	99.4	4.7	25.1	99.4	18.2	0
C-7748-16	5.9	1.1	2.0	59.6	14.9	4.1

* The VOC emissions for -10, -11 and -13 were recalculated using the revised EF as:
Max Heat Input Rating (MMBtu/hr) x EF (lb-VOC/MMBtu) x 24 hrs/day

Annual Emission:

The pre project combined annual emissions from the dehydrators and IC engine is taken as the existing combined emission limit permit condition excluding the boiler 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)
C-7748-10	21,936	653	3,152	17,562	6,473
C-7748-11					
C-7748-13					
C-7748-16					

Units C-7748-21, and -22 (New Milling Operation and New Dehydration Operation):

Since these are new emissions units, the PE1 = 0 lb/day for each unit for all pollutants.

2. Post-Project Potential to Emit (PE2)

Unit C-7748-12 (Vegetable Dehydration Line C):

Since there are no proposed modifications to the emission factors, throughput, or operating schedule, emissions will not change. Therefore, Post-Project Potential to Emit (PE2) is: PE2 = PE1

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

As discussed above, this unit is not being modified and the emissions were calculated above for reference only. Therefore, Post-Project Potential to Emit (PE2) is: PE2 = PE1

Units C-7748-10, -11, -13, and -16 (Vegetable Dehydration Lines A, B, and D, and Natural Gas-Fired IC Engine Cogeneration System) Daily Emissions:

Daily Emissions:

Since the facility is not proposing any modification that will affect the daily potential emissions from these units, 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	77.8	3.7	20.0	77.8	14.3
C-7748-11	77.8	3.7	20.0	77.8	14.3
C-7748-13	99.4	4.7	25.1	99.4	18.2
C-7748-16	5.9	1.1	2.0	59.6	14.9

Unit -20 (Emergency IC Engine):

The daily and annual PE are calculated as follows:

Daily PE2 (lb-pollutant/day) = EF (g-pollutant/bhp-hr) x rating (bhp) x operation (hr/day) / 453.6 g/lb

Annual PE2 (lb-pollutant/yr) = EF (g-pollutant/bhp-hr) x rating (bhp) x operation (hr/yr) / 453.6 g/lb

Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Daily Hours of Operation (hrs/day)	Annual Hours of Operation (hrs/yr)	Daily PE2 (lb/day)	Annual PE2 (lb/yr)
NO_X	2.66	131	24	50	**18.4**	**38**
SO_X	0.0051	131	24	50	**0.0**	**0**
PM_{10}	0.12	131	24	50	**0.8**	**2**
CO	0.7	131	24	50	**4.9**	**10**
VOC	0.14	131	24	50	**1.0**	**2**

Unit C-7748-21 (Vegetable Milling Operation):

The following formulas will be used to calculate emissions:

$PE2_{Daily}$ = Daily throughput x EF (lb/MMBtu)

= 30 tons/day x 0.0335 lb/ton
= 1.0 lb/day
Total $PE2_{Daily}$ =1.0 lb/day x 2 baghouses = 2.0 lb/day

$PE2_{Annual}$ = $PE2_{Daily}$ x 275 days
= 2.0 lb/day x 275 days
= 550 lb/year

Unit C-7748-22 Daily Emissions:

Daily emissions are calculated with the following formula:

Daily PE2 = (EF2 lb-NO_X/MMBtu) * (49.15 MMBtu/hr) * (24 hr/day)

Pollutant	Daily PE2			
	EF2 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/day)	Daily PE2 (lb/day)
NO_X	0.060	42.15	24	60.7
SO_X	0.00285	42.15	24	2.9
PM_{10}	0.0140	42.15	24	14.2
CO	0.292	42.15	24	295.8
VOC	0.0110	42.15	24	11.1

Units C-7748-10, -11, -13, -16, and -22 (Vegetable Dehydration Lines A, B, D and E, Natural Gas-Fired IC Engine Cogeneration System and Natural Gas-Fired Emergency IC Engine) Annual Emissions:

Annual Emissions:

The annual emissions from these units will be limited by a combined annual emissions limit. The applicant has proposed a combined annual emissions limit for these units by projecting the use of each piece of equipment including future business expansion with NOx being their limiting factor. Below is a summary of the proposed combined annual emissions limit:

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)
C-7748-10-3	36,163	1,796	8,770	129,622 *See Below	7,770
C-7748-11-3					
C-7748-13-3					
C-7748-16-1					

The combined annual emissions limit for CO was not calculated by the applicant because the highest equivalent natural gas usage must be determined ("back-calculated") to calculate the worst case CO emissions from all scenarios.

To calculate the maximum equivalent natural gas usage from the above limits, it will is assumed that the units with the lowest NOx emission factor operate to its full annual potential first.

Pollutant	Comparison of Emission Factors (lb/MMBtu)		
	Units -10, -11, & -13	Unit -16	Unit -22
NO_X	0.06 **	0.0184*	0.06 **
CO	0.06 *	0.1592 **	0.2924 ***

*Lowest EF
** 2nd highest EF
**Highest EF

Assuming unit -16, operates at its full potential for the entire year first (24 hours/day and 180 days/year at 12,576 scf/hr as stated in Section VII.A above),

24 hrs/day x 180 days/year x 12, 576 scf/hr x 1,000 Btu/scf x 1 MMBtu/1,000,000 Btu = 54,328 MMBtu/yr

And 54,328 MMBtu/yr x 0.0184 lb/MMBtu = 1,000 lb-NOx/yr

Subtracting the above calculated emissions from the combined annual limit of 36,163 lb-NOx/year = 35,163 lb-NOx/yr.

Assuming the rest of the emissions will be used in the dehydrators which have an emission factor of 0.06 lb-NOx/MMBtu, the equivalent natural gas usage = 35,163 lb-NOx/year ÷ 0.06 lb-NOx/MMBtu = 586,053 MMBtu/yr.

Combining the two calculated natural gas usage amounts = 54,328 MMBtu/yr + 586,053 MMBtu/yr = 640,381 MMBtu/yr which is the maximum natural gas usage that can be used.

To calculate the worst case annual CO emissions, it is assumed that the maximum natural gas usage of 640,381 MMBtu/yr will be used by the unit with the highest emissions first and the remaining natural gas used be the lower emitting units. Since unit -22 has the highest emission factor, it will be given priority to operate first to determine the worst case scenario:

0.2924 lb-CO/MMBtu x 42.15 MMBtu/hr x 8,760 hr/year = 107,964 lb-CO/yr.

Next, with the remaining 271,147 MMBtu/yr [640,381 MMBtu/yr – (42.15 MMBtu/hr x 8,760 hr/yr)], unit -16 with the 2nd highest emission factor will be allowed to operate next a full fire:

0.1592 lb-CO/MMBtu x 54,328 MMBtu/yr = 8,649 lb-CO/yr.

Lastly, the remaining 216,819 MMBtu/yr (640,381 MMBtu/yr – 271,147 MMBtu/yr – 54,328 MMBtu/yr), the existing dehydrators with the lower emission factor will be allowed to operate:

0.06 lb-CO/MMBtu x 216,819 MMBtu/yr = 13,009 lb-CO/yr.

Therefore, the maximum combined CO emissions limit is calculated as:

107,964 + 8,649 + 13,009 lb-CO/yr = **129,622 lb-CO/yr**

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

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

Pre-Project Stationary Source Potential to Emit [SSPE1] (lb/year)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
C-7748-1-4	0	0	1,209	0	0
C-7748-2-5	0	0	3,830	0	0
C-7748-5-2	0	0	2,652	0	0
C-7748-6-1					
C-7748-7-2	0	0	260	0	0
C-7748-8-2	0	0	520	0	0
ATC C-7748-9-2	0	0	78	0	0
C-7748-10-6	21,936	653	3,152	17,562	6,473
C-7748-11-6					
C-7748-13-6					
C-7748-16-3					
C-7748-12-1	0	0	4	0	0
C-7748-14-5	2,060	734	3,606	15,453	1,416
C-7748-17-1	0	0	19	0	0
C-7748-18-1	0	0	657	0	0
Pre-Project SSPE	**23,996**	**1387**	**15,987**	**33,015**	**7,889**

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

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with

valid ATCs or PTOs, except for emissions units proposed to be shut down as part of the Stationary Project, at the Stationary Source and the quantity of Emission Reduction Credits (ERCs) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site. The post-project stationary source potential to emit is shown on the table on the following page.

Post-Project Stationary Source Potential to Emit [SSPE2] (lb/year)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
C-7748-1-4	0	0	1,209	0	0
C-7748-2-5	0	0	3,830	0	0
C-7748-5-2	0	0	2,652	0	0
C-7748-6-1					
C-7748-7-2	0	0	260	0	0
C-7748-8-2	0	0	520	0	0
ATC C-7748-9-2	0	0	78	0	0
C-7748-10-6	36,163	1,796	8,770	129,622	7,770
C-7748-11-6					
C-7748-13-6					
C-7748-16-3					
C-7748-22-0					
C-7748-12-1	0	0	4	0	0
C-7748-14-5	2,060	734	3,606	15,453	1,416
C-7748-17-1	0	0	19	0	0
C-7748-18-1	0	0	657	0	0
C-7748-20-1	38	0	2	10	2
C-7748-21-0	0	0	550	0	0
Post-Project SSPE	**38,261**	**2,530**	**22,157**	**145,085**	**9,188**

5. Major Source Determination

Rule 2201 Major Source Determination:

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

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

Rule 2201 Major Source Determination (lb/year)						
	NO_X	SO_X	PM_{10}	$PM_{2.5}$	CO	VOC
SSPE1	23,996	1,387	15,987	15,987	33,015	7,889
SSPE2	38,261	2,530	22,157	22,157	145,085	9,188
Major Source Threshold	20,000	140,000	140,000	200,000	200,000	20,000
Major Source?	Yes	No	No	No	No	No

Note: PM2.5 assumed to be equal to PM10

As seen in the table above, the facility is an existing Major Source for NO_X emissions and will remain a Major Source for NOx as a result of this project.

Rule 2410 Major Source Determination:

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

PSD Major Source Determination (tons/year)						
	NO2	VOC	SO2	CO	PM	PM10
Estimated Facility PE before Project Increase	12	4	1	17	8	8
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source ? (Y/N)	N	N	N	N	N	N

As shown above, the facility is not an existing PSD major source for any regulated NSR pollutant expected to be emitted at this facility.

6. Baseline Emissions (BE)

BE = Pre-project Potential to Emit for:

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

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to Section 3.22

BE for SOx, PM_{10}, and VOC

Since the facility is a non-major source for SOx, PM_{10}, CO and VOC emissions, baseline emissions for each unit are equal to the pre-project potential to emit for these pollutants.

BE for NOx Emissions

BE for the new emergency IC engine and dehydrator is equal to 0.

The facility is a major source for NOx emissions. Therefore, each of the existing units must be clean, highly utilized, or fully offset in order for BE_{NOx} to equal $PE1_{NOx}$.

To be clean for NOx, each unit must either be equipped with an emissions control technology with a minimum control efficiency of at least 95% or be equipped with an emission control technology that is Achieved-in-Practice BACT as accepted by the APCO during the five years prior to the submission of a complete application.

The existing BACT Guideline for vegetable dehydrators (1.6.13) is included in Appendix IV of this document, and does not list any Achieved-in-Practice emission levels. District practice is to consider a unit as a Clean Unit if it meets or exceeds any of the Technologically Feasible options. The units meet the 0.06 lb-NOx/MMBtu limit listed as Technologically Feasible; therefore, the existing dehydrators are Clean Units and $BE_{NOx} = PE1_{NOx}$.

The existing BACT Guideline for fossil fuel fired IC engines (3.3.12) is included in Appendix IV of this document and lists 0.07 g/bhp-hr or 5 ppmvd @ 15% O2 as Achieved-in-Practice. Since the fossil fuel fired IC engine powering the cogen system, permit C-7748-16, is limited on the current permit (see Appendix II) to 0.06 g/bhp-hr and 5 ppmvd @ 15% O2, this unit is clean for NOx emissions. Therefore, $BE_{NOx} = PE1_{NOx}$ for the existing IC engine cogen system.

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

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NO_x	36,201	50,000	No

Since none of the SB 288 Major Modification Thresholds are surpassed with this project, this project does not constitute an SB 288 Major Modification.

8. Federal Major Modification

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

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

- To determine the post-project projected actual emissions from existing units, the provisions of 40 CFR 51.165 (a)(1)(xxviii) shall be used.
- To determine the pre-project baseline actual emissions, the provisions of 40 CFR 51.165 (a)(1)(xxxv)(A) through (D) shall be used.
- If the project is determined not to be a federal major modification pursuant to the provisions of 40 CFR 51.165 (a)(2)(ii)(B), but there is a reasonable possibility that the project may result in a significant emissions increase, the owner or operator shall comply with all of the provisions of 40 CFR 51.165 (a)(6) and (a)(7).
- Emissions increases calculated pursuant to this section are significant if they exceed the significance thresholds specified in the table below.

Significant Threshold (lb/year)	
Pollutant	Threshold (lb/year)
NO_X	0

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

Since this project consists of both existing and new emissions units, the "hybrid test" specified in 40 CFR(a)(2)(ii)(F) is applicable and requires that the NEI determination be based on the sum of the individual NEI determinations for

existing emissions units (NEI_E) and new emissions units (NEI_N) pursuant to 40 CFR(a)(2)(ii)(C) and (D) respectively. Therefore,

$NEI = NEI_{E(\text{existing units in SLC, -10, -11, -13, -16})} + NEI_{N1(\text{unit -20})} + NEI_{N2(\text{unit -22})}$

Where: $NEI_E = PAE_E - BAE_E$,
$NEI_{N1} = PAE_N - BAE_N = PAE_N - BAE_N = PE2_N - BAE_N = PE2_N$, and
$NEI_{N2} = PE2_{N2}$

And: PAE = Projected Actual Emissions, and
BAE = Baseline Actual Emissions

Therefore, $NEI = PAE_E - BAE_E + PAE_{N1} - BAE_{N1} + PE2_{N2} + PE2_{N2}$

Since $PAE_E + PE2_N$ shall not exceed the PE2 of the combined annual emissions limit ($PE2_{SLC}$), $PAE_E + PE2_N = PE2_{SLC}$.

Therefore, $NEI = PE2_{SLC} - BAE_E + PAE_E + PE2_{N1}$

Where: $PE2_{SLC}$ = 36,163 lb/year and $PE2_{N1}$ = 38 lb/year

Baseline Actual Emissions for Existing Units (BAE_{E1})

Using the data provided for 2013 and 2014 emissions inventory provided by the facility, the baseline actual emissions can be calculated using the following natural gas usage amounts and engine operation hours:

Baseline Actual Usage			
Permit Unit	Usage in 2013	Usage in 2014	Average Usage in 2014
C-7748-10	102,265 MMBtu/yr	131,904 MMBtu/yr	117,085 MMBtu/yr
C-7748-11	102,265 MMBtu/yr	131,904 MMBtu/yr	117,085 MMBtu/yr
C-7748-13	102,265 MMBtu/yr	131,904 MMBtu/yr	117,085 MMBtu/yr
C-7748-16	4,200 hrs/yr	4,300 hrs/yr	4,250 hrs/yr

Since units C-7748-10, -11, and -13 have the same NO_x emission factor, the average annual usage amounts will be added together and multiplied by the emission factors to obtain the BAE for these units. Combined usage = 351,255 MMBtu/yr.

BAE for C-7748-10, -11 and -13 (lb/year)		
NOx Emission Factor (lb/MMBtu)	Natural Gas Usage (MMBtu/yr)	BAE (lb/yr)
0.06	351,255	21,075

BAE for C-7748-16 (lb/year)			
NOx Emission Factor (g/bhp-hr)	Rating (bhp)	Annual Hours of Operation (hrs/yr)	BAE (lb/yr)
0.06	1,877	4,250	1,055

Total BAE = 21,075 + 1.055 = 22,130 lb-NOx/year.

NEI = $PE2_{SLC}$ – BAE_E + $PE2_{N1}$
= 36,163 - 22,130 + 38 = 14,071 lb-NOx/year

The NEI for this project is greater than the Federal Major Modification threshold of 0 lb/year for NO_x. Therefore, this project constitutes a Federal Major Modification.

9. Quarterly Net Emissions Change (QNEC)

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

VIII. Compliance

Rule 1081 – Source Sampling

The purpose of this rule is to ensure that any source operation that emits or may emit air contaminants provides adequate and safe facilities for use in sampling to determine compliance. This rule also specifies methods and procedures for source testing, sample collection, and compliance determination. The following existing conditions will be listed on the permit C-7748-14:

- 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]

- The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

Rule 2201 - New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

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

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

C-7748-20-1

The following table evaluates whether BACT is triggered for the new emergency IC engine.

BACT Applicability – New Milling Operation				
Pollutant	**Daily Emissions (lb/day)**	**BACT Threshold (lb/day)**	**SSPE2 (lb/yr)**	**BACT Triggered?**
NO_X	18.4	> 2.0	n/a	**Yes**
SO_X	0.0	> 2.0	n/a	**No**
PM_{10}	0.8	> 2.0	n/a	**No**
CO	4.9	> 2.0 and SSPE2 ≥ 200,000 lb/yr	<200,000	**No**
VOC	1.0	> 2.0	n/a	**No**

As shown above, the installation of the new emergency IC engine trigger BACT for NO_x.

C-7748-21-0

The following table evaluates whether BACT is triggered for the new milling operation.

BACT Applicability – New Milling Operation				
Pollutant	**Daily Emissions (lb/day)**	**BACT Threshold (lb/day)**	**SSPE2 (lb/yr)**	**BACT Triggered?**
NO_X	0.0	> 2.0	n/a	**No**
SO_X	0.0	> 2.0	n/a	**No**
PM_{10}	2.0	> 2.0	n/a	**No**
CO	0.0	> 2.0 and SSPE2 ≥ 200,000 lb/yr	n/a	**No**
VOC	0.0	> 2.0	n/a	**No**

As shown above, the installation of the new milling operation does not trigger BACT for any pollutant.

C-7748-22-0

The following table evaluates whether BACT is triggered for the new dehydrator.

BACT Applicability – New Dehydrator				
Pollutant	**Daily Emissions (lb/day)**	**BACT Threshold (lb/day)**	**SSPE2 (lb/yr)**	**BACT Triggered?**
NO_X	70.8	> 2.0	n/a	**Yes**
SO_X	3.4	> 2.0	n/a	**Yes**
PM_{10}	16.5	> 2.0	n/a	**Yes**
CO	344.9	> 2.0 and SSPE2 ≥ 200,000 lb/yr	<200,000	**No**
VOC	13.0	> 2.0	n/a	**Yes**

As shown above, the installation of the new dehydrator triggers BACT for all pollutants except CO.

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

The milling operation is being relocated from one stationary source (N-1787) to another; however, for the purpose of this project, it is considered as a new

unit at this facility (C-7748) and is evaluated in the previous section under "New Emissions Units."

c. Modification of emissions units – Adjusted Increase in Permitted Emissions (AIPE) > 2 lb/day

Unit -12 is being modified; however, the potential emissions are not increasing and the potential annual throughput are not increasing. Therefore the AIPE = 0.0 lb/day and BACT is not triggered.

Since units C-7748-10, -11, and -13 in this project are increasing their potential annual usage and allowed to operate on additional days than was previously allowed, BACT is potentially triggered on the additional days of operation. If the daily emissions exceed 2.0 lb/day, it is assumed that BACT is triggered for that unit for that pollutant on the additional days.

BACT Applicability – Existing Dehydrator (C-7748-10 & -11)				
Pollutant	**Daily Emissions (lb/day)**	**BACT Threshold (lb/day)**	**SSPE2 (lb/yr)**	**BACT Triggered?**
NO_X	77.8	> 2.0	n/a	**Yes**
SO_X	3.7	> 2.0	n/a	**Yes**
PM_{10}	20.0	> 2.0	n/a	**Yes**
CO	77.8	> 2.0 and SSPE2 ≥ 200,000 lb/yr	<200,000	**No**
VOC	14.3	> 2.0	n/a	**Yes**

BACT Applicability – Existing Dehydrator (C-7748-13)				
Pollutant	**Daily Emissions (lb/day)**	**BACT Threshold (lb/day)**	**SSPE2 (lb/yr)**	**BACT Triggered?**
NO_X	99.4	> 2.0	n/a	**Yes**
SO_X	4.7	> 2.0	n/a	**Yes**
PM_{10}	25.1	> 2.0	n/a	**Yes**
CO	99.4	> 2.0 and SSPE2 ≥ 200,000 lb/yr	<200,000	**No**
VOC	18.2	> 2.0	n/a	**Yes**

d. Major Modification

As discussed in Sections VII.C.8 above, this project constitutes a Major Modification for NO_X emissions. Therefore BACT is triggered for NO_X for all emissions units in the project for which there is an emission increase.

2. BACT Guideline

BACT Guideline 3.1.1 applies to the emergency diesel-fired IC engine.
BACT Guideline 1.6.13 applies to the dehydrators.
BACT Guideline 3.3.12 applies to the fossil fuel-fired IC engine.

A copy of these guidelines are included in Appendix IV.

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.

The District performed a Top-Down BACT analysis for the emergency diesel-fired IC engine. A copy of the analysis is included in Appendix V. Pursuant to the analysis, BACT for the new emergency IC engine is the following:

NO_X: Tier 3 Certification

The District performed a Top-Down BACT analysis for the dehydrators. A copy of the analysis is included in Appendix V. Pursuant to the analysis, BACT for the new dehydrators is the following:

NOx, SOx, PM10, CO, VOC: Use of PUC quality natural gas fuel

The following condition will be included on ATC's C-7748-10, -11, -13, and -22 to enforce the BACT requirements:

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

The District performed a Top-Down BACT analysis for the fossil fuel-fired IC engine. A copy of the analysis is included in Appendix V. Pursuant to the analysis, BACT for the new dehydrators is the following:

NOx: 5 ppmv @15% O_2

The following condition will be included on ATC C-7748-16 to enforce the BACT requirements:

- 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]

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	38,261	2,530	22,157	145,085	9,188
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 shown in the previous table, offset requirements are triggered for NOx emissions. The following equation will be used to calculate the quantity of offsets required.

Quantity of Offsets Required = [Σ(PE2 – BE) + Cargo Carrier Emissions] x Distance Offset Ratio (DOR)

Where,
PE2 = Post Project Potential to Emit, (lb/year)
BE = Baseline Emissions, (lb/year)
ICCE = Increase in Cargo Carrier Emissions, (lb/year)
DOR = Distance Offset Ratio, determined pursuant to Section 4.8

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 = HAE

As shown earlier in this evaluation, BE_{NOx} is equal to zero for the new units and is equal to PE1 for the existing units.

Quantity of NOx Offsets Required

There is no cargo carrier emissions associated with these units. The quantity of NOx offsets required is calculated in the following table:

Unit	PE2 (lb/year)	BE_{NOx} = PE1 (lb/year)	Offsets Required PE2 – PE1 (lb/year)
C-7748-10, -11, -13, -16, -22 (combined emissions)	36,163	21,936	14,227
C-7748-20	38	0	0[2]
Quantity of NOx Offsets Required, Σ[PE2 – BE]			**14,227**

There are no increases in cargo carrier emissions; therefore offsets can be determined as follows:

Offsets Required (lb/year) = (Σ[PE2 – BE] + ICCE) x DOR

Σ[PE2 – BE] (NO_X) = 14,227 lb/year
ICCE = 0 lb/year

The project is a Federal Major Modification and therefore the correct offset ratio for NO_x is 1.5:1.

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

Offsets Required (lb/year) = ([14,227 – 0] + 0) x 1.5
= 14,227 x 1.5
= 21,341 lb NO_X/year

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

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
5,335	5,335	5,335	5,336

[2] Pursuant to District Rule 2201, Section 4.6.2, emergency equipment used exclusively as emergency standby equipment for electric power generation and does not operate more than 200 hours/year for non-emergency purposes shall not require offsets; therefore, this emergency IC engine is exempt from providing offsets since it is limited to 50 hours/year.

The applicant has stated that the facility plans to use ERC certificate N-1359-2 to offset the increases in NO_X emissions associated with this project. The above certificate has available quarterly NO_X credits as follows:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
ERC #N-1359-2	1,780	5,324	10,542	5,665

As seen above, the proposed ERC certificate is not sufficient to fully offset the first and second quarters NO_X emissions. District Rule 2201, Section 4.13.8, states "Actual Emission Reductions (AER's) for NOx that occurred from April through November may be used to offset increases in NOx during any period of the year." The facility has agreed to provide NOx emissions reduction credits occurring within all four quarters of the year, with excess credits from the 3rd quarter being transferred to the first and second quarters as follows:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Offsets Required	5,335	5,335	5,335	5,336
Available ERCs from N-1359-2	1,780	5,324	10,542	5,665
ERCs applied	-1,780	-5,324	-5,335	-5,336
Remaining offsets required:	3,555	11	0	0
Remaining ERC's from certificate N-1359-2:	0	0	5,207	329
3rd qtr. ERC's from certificate N-1359-2 applied to 1st qtr:	3,555	0	-3,555	0
3rd qtr. ERC's from certificate N-1359-2 applied to 2nd qtr:	0	11	-11	0
Remaining NO_X emissions to be offset:	**0**	**0**	**0**	**0**
Remaining ERC's from certificate	**0**	**0**	**1,641**	**329**
Remaining ERC's:				

As shown above, ERC N-1359-2 has sufficient credits to fully offset the 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 – 5,335 lb, 2nd quarter – 5,335 lb, 3rd quarter – 5,335 lb, and fourth quarter – 5,336 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [Distri335ct Rule 2201]

- ERC Certificate Number N-1359-2 (or a certificate split from this certificate) 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.
e. Any project which results in a Title V significant permit modification

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 Sections VII.C.8, this project is a Federal Major Modification. Therefore, public noticing for Federal Major Modification purposes is 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. As seen in Section VII.C.2 above, this project does not include a new emissions unit which has daily emissions greater than 100 lb/day for any pollutant, therefore public noticing for PE > 100 lb/day purposes is not required.

c. Offset Threshold

The SSPE1 and SSPE2 are compared to the offset thresholds in the following table.

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO_X	23,996	38,261	20,000 lb/year	No
SO_X	1,387	2,530	54,750 lb/year	No
PM_{10}	15,987	22,157	29,200 lb/year	No
CO	33,015	145,085	200,000 lb/year	No
VOC	7,889	9,188	20,000 lb/year	No

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

d. SSIPE > 20,000 lb/year

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

SSIPE Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO_X	38,261	23,996	14,265	20,000 lb/year	No
SO_X	2,530	1,387	1,143	20,000 lb/year	No
PM_{10}	22,157	15,987	6,170	20,000 lb/year	No
CO	145,085	33,015	112,070	20,000 lb/year	Yes
VOC	9,188	7,889	1,299	20,000 lb/year	No

As demonstrated above, the SSIPE CO was greater than 20,000 lb/year; therefore public noticing for SSIPE purposes is required.

2. Public Notice Action

As discussed above, public noticing is required for this project for being a Federal Major Modification and for SSIPE > 20,000 lb/year for CO emissions. 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 ATC for this equipment.

D. Daily Emissions Limits

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.

Units -10, -11, and -13 (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% O_2 (0.06 lb-NO_X/MMBtu), 0.00285 lb-SO_X/MMBtu, 0.014 lb-PM10/MMBtu, 8.62 ppmvd CO @ 19% O_2 (0.06 lb-CO/MMBtu), or 0.011 lb-VOC/MMBtu. [District Rules 2201 and 4309]

- PM_{10} 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, -16, and -22, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 1,796 lb-SOx/year, 8,770 lb-PM10/year, 129,622 lb-CO/year, and 7,770 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]

Units -12 (Vegetable Dehydration Line C):

- Emissions from the vegetable dehydration line shall not exceed 0.0005 lb-PM10/ton of material processed. [District Rule 2201]

- Maximum product processing rates shall not exceed 90 ton/day and 7,000 tons/year. [District Rule 2201]

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

- The IC engine shall not exceed more than 180 days/year of operation. [District Rule 2201]

- Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NOx @ 15% O2 (0.06 g-NOx/hp-hr), 0.011 g-SOx/hp-hr, 0.02 g-PM10/hp-hr, 71 ppmvd CO @ 15% O2 (0.6 g-CO/hp-hr), or 25 ppmvd VOC @ 15% O2 (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, -16, and -22, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 1,796 lb-SOx/year, 8,770 lb-PM10/year, 129,622 lb-CO/year, and 7,770 lb-VOC/year. [District Rules 2201 and 4102]

Unit -20 (Emergency IC Engine:

- {4771} Emissions from this IC engine shall not exceed any of the following limits: 2.66 g-NOx/bhp-hr, 0.7 g-CO/bhp-hr, or 0.14 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]

- {4772} Emissions from this IC engine shall not exceed 0.12g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]

Units -21 (Vegetable Milling Operation):

- Emissions from the milling operation shall not exceed 0.0335 lb-PM10/ton of material processed per baghouse. [District Rule 2201]

- Maximum product processed shall not exceed 30 ton/day and 8,250 tons/year. [District Rule 2201]

Unit -22 (Vegetable Dehydration Line E):

- Emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.25 ppmvd NO_X @ 19% O_2 (0.06 lb-NO_X/MMBtu), 0.00285 lb-SO_X/MMBtu, 0.014 lb-PM10/MMBtu, 42 ppmvd CO @ 19% O_2 (0.2924 lb-CO/MMBtu), or 0.011 lb-VOC/MMBtu. [District Rules 2201 and 4309]

- The combined annual emissions from units -10, -11, -13, -16, and -22, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 1,796 lb-SOx/year, 8,770 lb-PM10/year, 129,622 lb-CO/year, and 7,770 lb-VOC/year. [District Rules 2201 and 4102]

E. Compliance Assurance

1. Source Testing

Units -10, -11, -12, -13, -20, and -21 (Vegetable Dehydration Lines A, B, C, D, Emergency IC Engine and Vegetable Milling Operation):

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

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 5.2 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.

Unit -22 (Vegetable Dehydration Line E):

Neither District Policy APR 1705 "Source Testing Frequency" nor District Rule 4309 list source testing requirements for vegetable dehydrators. The District typically requires source testing of NOx and CO of combustion units to verify the proposed emission limits.

The proposed NOx emissions limit is 0.06 lb/MMBtu for the new dehydrator. Since the facility is claiming a slightly lower emission factor than what is guaranteed by the manufacturer, the District will require an initial source test for NOx emissions from the new dehydrator. Additionally, the facility will be required to source test CO emissions.

The following conditions will be listed only on the ATC for unit C-7748-22-0:

- Source testing to measure NOx and CO emissions from this unit shall be conducted within 60 days of startup. [District Rule 2201]

- 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 Rule 2201]

- NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100. [District Rule 2201]

- CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 2201]

- Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 2201]

- All test results for NOx shall be reported in either lb/MMBtu or ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 2201]

2. Monitoring

Units -10, -11, -13, -20, and -22 (Vegetable Dehydration Lines A, B, D, E, Emergency IC Engine):

No monitoring is required to demonstrate compliance with Rule 2201.

Units -12 and -21 (Vegetable Dehydration Line C and Vegetable Milling Operation):

District guidance document FYI-125 requires the facility to monitor the baghouse pressure differential gauge reading at least once each day that it operates. Such monitoring will be required.

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

As required by District Rule 4702, the unit 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, -11, and -13 (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 lines. [District Rule 2201]

- Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11, -13, -16, and -22. These records shall be updated monthly. [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 -12 (Vegetable Dehydration Line C):

- Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201]

- Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201]

- Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [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 Rule 1070]

Unit -16 (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 NOx, SOx, PM10, CO, and VOC emissions of units -10, -11, -13, -16, and -22. These records shall be updated monthly. [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]

Unit -20 (Emergency IC Engine):

- {3496} The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and

maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115]

- {4263} The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]

- {3475} 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 and 17 CCR 93115]

Unit -21 (Vegetable Milling Operation):

- Differential operating pressure of each baghouse shall be monitored and recorded on each day that the baghouses operate. [District Rule 2201]

- Permittee shall maintain daily and annual records of the amount of material processed in the vegetable milling operation. [District Rule 2201]

- Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [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 Rule 1070]

Unit -22 (Vegetable Dehydration Line E):

- Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309]

- Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration lines. [District Rule 2201]

- Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11, -13, -16, and -22. These records shall be updated monthly. [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]

4. Reporting

No reporting is required to ensure compliance with Rule 2201.

F. Ambient Air Quality Analysis

Section 4.14.1 of this Rule requires that an ambient air quality analysis (AAQA) be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The Technical Services Division of the SJVAPCD conducted the required analysis. Pursuant to the Ambient Air Quality Analysis Results Summary in Appendix VII of this document, this project will not cause or make worse a violation of an air quality standard.

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Title I Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VIII above, this facility is a new major source and this project does constitute a Title I modification, therefore this requirement is applicable. Olam's compliance certification is included in Appendix VI.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to install a one vegetable milling operation and one new dehydrator.

Since the project will provide one vegetable milling operation and one additional dehydrator to be used at the same location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures on a much greater scale, and would therefore result in a much greater impact.

Rule 2410 Prevention of Significant Deterioration

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

Rule 2520 – Federally Mandated Operating Permits

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

Section 3.20.5 states that a minor permit modification is a permit modification that does not meet the definition of modification as given in Section 111 or Section 112 of the Federal Clean Air Act. Since this project is a Title I modification (i.e. Federal Major Modification), the proposed project is considered to be a modification under the Federal Clean Air Act. As a result, the proposed project constitutes a Significant Modification to the Title V Permit pursuant to Section 3.29.

As discussed above, the facility has not applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with a significant modification, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility shall not implement the changes requested until the final permit is issued.

Rule 4001 New Source Performance Standards (NSPS)

40 CFR 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

C-7748-20 (Emergency IC Engine)

The following table demonstrates how the proposed engine(s) will comply with the requirements of 40 CFR Part 60 Subpart IIII.

40 CFR 60 Subpart IIII Requirements for New Emergency IC Engines Powering Generators (2007 and Later Model Year)	Proposed Method of Compliance with 40 CFR 60 Subpart IIII Requirements
Engine(s) must meet the appropriate Subpart IIII emission standards for new engines, based on the model year, size, and number of liters per cylinder.	The applicant has proposed the use of engine(s) that are certified to the latest EPA Tier Certification level for the applicable horsepower range, guaranteeing compliance with the emission standards of Subpart IIII.
Engine(s) must be fired on 500 ppm sulfur content fuel or less, and fuel with a minimum centane index of 40 or a maximum aromatic content of 35 percent by volume. Starting in October 1, 2010, the maximum allowable sulfur	The applicant has proposed the use of CARB certified diesel fuel, which meets all of the fuel requirements listed in Subpart IIII. A permit condition enforcing this requirement was included earlier in this evaluation.

fuel content will be lowered to 15 ppm.	
The operator/owner must install a non-resettable hour meter prior to startup of the engine(s).	The applicant has proposed to install a non-resettable hour meter. The following condition will be included on the permit: • This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 60 Subpart IIII]
Emergency engine(s) may be operated for the purpose of maintenance and testing up to 100 hours per year. There is no limit on emergency use.	The Air Toxic Control Measure for Stationary Compression Ignition Engines (Stationary ATCM) limits this engine maintenance and testing to 50 hours/year. Thus, compliance is expected.
The owner/operator must operate and maintain the engine(s) and any installed control devices according to the manufacturers written instructions.	The following condition will be included on the permit: • This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 60 Subpart IIII]

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) (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) (iii) on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or
(iv) (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 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]

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 and -20 are 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 engines in this project were 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 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.

As long as the equipment is properly maintained and operated, compliance with visible emissions limits is expected under normal operating conditions. The following condition will be placed on the permit.

- *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]*

Pursuant to District Policy SSP 1005, the visible emissions from a dust collector shall be limited by permit conditions to not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. If the equipment is properly maintained this condition should not be exceeded. The following condition will be placed on the permits C-7748-12 and -21:

- *Visible emissions from the exhaust of the baghouse shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]*

Rule 4102 - Public Nuisance

Rule 4102 states that no air contaminant shall be released into the atmosphere which causes a public nuisance.

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

California Health & Safety Code 41700 (Health Risk Assessment)

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

Since there is no change in emissions or risk from the engine permitted under C-7748-20 from Project C-1143221; therefore, no HRA is required for this unit.

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 VII), 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.

The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
C-7748-10, -11, -13, -16, -20, -21, -22	0.00045 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 VII of this report, the emissions increases for this project was determined to be less than significant.

The following conditions will be included on the ATCs:

Unit 21-0

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

Unit 22-0

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

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 (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

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

$$GL = 0.0098\ grain/dscf < 0.1\ grain/dscf$$

Material Handling Operation:

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

PM_{10} emission rate = 1.9 lb/day. Assuming 100% of PM is PM_{10}
Exhaust Gas Flow = 12,500 scfm

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

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 (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

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

$$GL = 0.0098\ \ grain/dscf < 0.1\ grain/dscf$$

Material Handling Operation:

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

PM_{10} emission rate = 1.9 lb/day. Assuming 100% of PM is PM_{10}
Exhaust Gas Flow = 12,500 scfm

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

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 -12 (Vegetable Dehydration Line C):

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

PM_{10} emission rate = 0.0 lb/day. Assuming 100% of PM is PM_{10}
Exhaust Gas Flow = 12,000 scfm

$$\text{PM Conc. (gr/scf)} = \frac{\text{(0.0 lb/day) x (7,000 gr/lb)}}{\text{(12,000 ft}^3\text{/min) x (60 min/hr) x (24 hr/day)}} = \textbf{0.0}\quad \textbf{gr/scf}$$

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 (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 = $\frac{20.9}{(20.9 - 3)} = 1.17$

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

$$GL = 0.0098\ grain/dscf < 0.1\ grain/dscf$$

Material Handling Operation:

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

PM_{10} emission rate = 1.9 lb/day. Assuming 100% of PM is PM_{10}
Exhaust Gas Flow = 12,500 scfm

PM Conc. (gr/scf) = $\frac{\text{(1.9 lb/day) x (7,000 gr/lb)}}{\text{(12,500 ft}^3\text{/min) x (60 min/hr) x (24 hr/day)}}$ = **0.0007 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 -16 (Natural Gas-Fired IC Engine Cogeneration System):

F-Factor for NG: 8,578 dscf/MMBtu at 60 °F
PM10 Emission Factor: 0.02 g-PM_{10}/bhp-hr

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

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]

Unit -20 (emergency IC engine)

Rule 4201 limits particulate matter emissions from any single source operation to 0.1 g/dscf, which, as calculated below, is equivalent to a PM_{10} emission factor of 0.4 g-PM_{10}/bhp-hr.

$$0.1\ \frac{grain-PM}{dscf} \times \frac{g}{15.43\,grain} \times \frac{1\,Btu_{in}}{0.35\,Btu_{out}} \times \frac{9{,}051\,dscf}{10^6\,Btu} \times \frac{2{,}542.5\,Btu}{1\,bhp-hr} \times \frac{0.96g-PM_{10}}{1g-PM} = 0.4\,\frac{g-PM_{10}}{bhp-hr}$$

The new engine has a PM_{10} emission factor less than 0.4 g/bhp-hr. Therefore, compliance is expected and the following condition will be listed on the ATC:

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

Unit -21 (Vegetable Milling Operation):

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

PM_{10} emission rate = 0.0 lb/day. Assuming 100% of PM is PM_{10}
Exhaust Gas Flow = 12,000 scfm

$$\text{PM Conc. (gr/scf)} = \frac{\text{(0.0 lb/day) x (7,000 gr/lb)}}{\text{(12,000 ft}^3\text{/min) x (60 min/hr) x (24 hr/day)}} = \mathbf{0.0\ gr/scf}$$

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 -22 (Vegetable Dehydration Line E):

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 = $\frac{20.9}{(20.9 - 3)} = 1.17$

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

$$GL = 0.0098\ grain/dscf < 0.1\,grain/dscf$$

Rule 4301 Fuel Burning Equipment

Rule 4301 Section 3.1 defines Fuel Burning Equipment as any furnace, boiler, apparatus, stack, etc. used in the process of burning fuel for the primary purpose of producing heat or

power by indirect heat transfer. Each dehydrator is a direct-fired unit and is therefore not subject to this rule.

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, -13, and -22 are subject to the requirements of this rule.

The purpose of this rule is to limit emissions of oxides of nitrogen (NOx) 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 6.2 lists the test methods required by the rule; however, Rule 4309 does not require dehydrators to be tested.

Section 6.3.1 states that for the purposes of compliance, the operators of a dehydrator must demonstrate that the unit meets the requirements of Section 5.4.2. No other requirements of Section 6.3.2 through 6.3.9 are applicable. The applicant is proposing to meet the requirements of Section 5.4.2.

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.

Rule 4801 – Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO_2, 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 SO_2
T (Standard Temperature) = 60°F = 520°R
P (Standard Pressure) = 14.7 psi

$$\text{R (Universal Gas Constant)} = \frac{10.73\,\text{psi}\cdot\text{ft}^3}{\text{lb}\cdot\text{mol}\cdot{}^\circ\text{R}}$$

For diesel fired units:

$$\frac{0.000015\,lb-S}{lb-fuel}\times\frac{7.1\,\text{lb}}{\text{gal}}\times\frac{64\,\text{lb}-SO_2}{32\,\text{lb}-\text{S}}\times\frac{1\,\text{MMBtu}}{9{,}051\,\text{scf}}\times\frac{1\,\text{gal}}{0.137\,\text{MMBtu}}\times\frac{\text{lb}-\text{mol}}{64\,\text{lb}-SO_2}\times\frac{10.73\,\text{psi}-\text{ft}^3}{\text{lb}-\text{mol}-{}^\circ\text{R}}\times\frac{520{}^\circ\text{R}}{14.7\,\text{psi}}\times 1{,}000{,}000 = 1.0\ \text{ppmv}$$

For natural gas fired units:
EPA F-Factor for Natural Gas: 8,710 dscf/MMBtu at 68 °F, equivalent to

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

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

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

Therefore, compliance with District Rule 4801 requirements is expected.

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 4320 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 NOx limit is July 1, 2010.

For the unit:

the proposed NO_x emission factor is 7 ppmvd @ 3% O_2 (0.008 lb/MMBtu), and

the proposed CO emission factor is 81.2 ppmvd @ 3% O_2 (0.06 lb/MMBtu)

The unit currently meets those limits; therefore, continued 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 SO_2 emissions by at least 95% by weight; or limit exhaust SO_2 to less than or equal to 9 ppmv corrected to 3.0% O_2;

The boiler will continue to 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 O_2, or install and maintain APCO-approved alternate monitoring.

The applicant proposes to continue to use pre-approved alternate monitoring scheme A (pursuant to District Policy SSP-1105), which requires that monitoring of NO_X, CO, and O_2 exhaust concentrations shall be conducted at least once per month (in which a source test is not performed) using a portable analyzer. The following conditions will be listed on 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 NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320]

- If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 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 NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320]

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 SOx emissions. Since this unit is fired solely on PUC-Quality natural gas, SOx 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]

- NOX emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320]

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

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

Section 6.3, Compliance Testing

Section 6.3.1 requires that 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 NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 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, continued compliance with District Rule 4320 requirements is expected.

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

This rule applies to boilers, steam generators, and process heaters at NO_x Major Sources that are not located west of Interstate 5 in Fresno, Kings, or Kern counties. The emission limits, monitoring provisions, and testing requirements of this rule are satisfied when the unit is operated in compliance with Rule 4305, 4306 and 4320. Therefore, compliance with this rule is expected.

Rule 4701 Internal Combustion Engines - Phase 1

The purpose of this rule is to limit the emissions of nitrogen oxides (NOx), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines. Except as provided in Section 4.0, the provisions of this rule apply to any internal combustion engine, rated greater than 50 bhp, that requires a PTO.

The proposed engine(s) are also subject to District Rule 4702, Internal Combustion Engines. Since emissions limits of District Rule 4702 and all other requirements are equivalent or more stringent than District Rule 4701 requirements for emergency engines, compliance with District Rule 4702 requirements will satisfy requirements of District Rule 4701.

District Rule 4702 Internal Combustion Engines – Phase 2

Unit -16

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% O_2, dry)**	**CO Emission Limit (ppmv @ 15% O_2, dry)**	**VOC Emission Limit (ppmv @ 15% O_2, 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% O_2).

For the unit:

the proposed NO_x emission factor is 5 ppmvd @ 15% O_2 (0.06 g/bhp-hr),
the proposed CO emission factor is 71 @ 15% O_2 (0.6 g/bhp-hr), and
the proposed VOC emission factor is 25 ppmvd @ 15% O_2 (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 O_2 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 NOx, CO, O_2, and NH3 at least once every month (in which a source test is not performed). NOx, CO, and O_2 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 place 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:

- NOx, CO, VOC, and NH_3 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 NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the 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 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]

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 NOx, CO, O2 and NH3 measurements, (2) the O2 concentration in percent and the measured NOx, 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 AECP.

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.

Unit -20

The following summarizes District Rule 4702 Requirements for emergency standby IC engines:

1. Operation of emergency standby engines is limited to 100 hours or less per calendar year for non-emergency purposes. The Air Toxic Control Measure for Stationary Compression Ignition Engines (Stationary ATCM) limits this engine maintenance and testing to 50 hours/year; therefore, compliance is expected. The following condition will be included on the permit:

    - {4777} This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201 and 4702, and 17 CCR 93115]

2. Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier. The following condition will be included on the permit:

    - {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]

3. Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier. The following condition will be included on the permit:

    - {3478} During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]

4. Install and operate a nonresettable elapsed time meter. In lieu of installing a nonresettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and EPA and is allowed by Permit-to-Operate condition. The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions.

   The following condition shall be used:

   - {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]

5. Emergency standby engines cannot be used to reduce the demand for electrical power when normal electrical power line service has not failed, or to produce power for the electrical distribution system, or in conjunction with a voluntary utility demand reduction program or interruptible power contract. The following conditions will be included on the permit:

   - {3807} An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702]

   - {3808} This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702]

6. Records of the total hours of operation, type of fuel used, purpose for operating the engine, all hours of non-emergency and emergency operation, and other support documentation must be maintained. All records 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 following conditions will be included on the permit:

   - {3496} The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115]

- {4263} The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]

- {3475} 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 and 17 CCR 93115]

Title 17 California Code of Regulations (CCR), Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines

The following requirements apply to new engines (those installed after 1/1/05):

Title 17 CCR Section 93115 Requirements for New Emergency IC Engines Powering Electrical Generators	Proposed Method of Compliance with Title 17 CCR Section 93115 Requirements
Emergency engine(s) must be fired on CARB diesel fuel, or an approved alternative diesel fuel.	The applicant has proposed the use of CARB certified diesel fuel. The proposed permit condition, requiring the use of CARB certified diesel fuel, was included earlier in this evaluation.
The engine(s) must meet the emission standards in Table 1 of the ATCM for the specific power rating and model year of the proposed engine.	The applicant has proposed the use of engine(s) that are certified to the latest EPA Tier Certification standards for the applicable horsepower range, guaranteeing compliance with the emission standards of the ATCM. Additionally, the proposed diesel PM emissions rate is less than or equal to 0.15 g/bhp-hr.
The engine may not be operated more than 50 hours per year for maintenance and testing purposes.	The following condition will be included on the permit: • {4777} This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201 and 4702, and 17 CCR 93115]
Engines, with a PM10 emissions rate greater than 0.01 g/bhp-hr and located at schools, may not be operated for maintenance and testing whenever there is a school sponsored activity on the grounds. Additionally, engines located within 500 feet of school grounds may not be operated for maintenance and testing between 7:30 AM and 3:30 PM	
A non-resettable hour meter with a	The following condition will be included on the permit:

minimum display capability of 9,999 hours shall be installed upon engine installation, or by no later than January 1, 2005, on all engines subject to all or part of the requirements of sections 93115.6, 93115.7, or 93115.8(a) unless the District determines on a case-by-case basis that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history.	• {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
An owner or operator shall maintain monthly records of the following: emergency use hours of operation; maintenance and testing hours of operation; hours of operation for emission testing; initial start-up testing hours; hours of operation for all other uses; and the type of fuel used. All records shall be retained for a minimum of 36 months.	Permit conditions enforcing these requirements were shown earlier in the evaluation.

District Rule 4801 Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO_2, 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 SO_2

T (Standard Temperature) = 60°F = 520°R

P (Standard Pressure) = 14.7 psi

$$\text{R (Universal Gas Constant)} = \frac{10.73\ \text{psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot {}^\circ\text{R}}$$

EPA F-Factor for Natural Gas: 8,710 dscf/MMBtu at 68 °F, equivalent to

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

Natural Gas Combustion:

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

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

Diesel Combustion:

$$\frac{0.000015\ lb-S}{lb-fuel}\times\frac{7.1\ \text{lb}}{\text{gal}}\times\frac{64\ \text{lb}-SO_2}{32\ \text{lb}-S}\times\frac{1\ \text{MMBtu}}{9{,}051\ \text{scf}}\times\frac{1\ \text{gal}}{0.137\ \text{MMBtu}}\times\frac{\text{lb}-\text{mol}}{64\ \text{lb}-SO_2}\times\frac{10.73\ \text{psi}-\text{ft}^3}{\text{lb}-\text{mol}-{}^{\circ}\text{R}}\times\frac{520^{\circ}\text{R}}{14.7\ \text{psi}}\times 1{,}000{,}000=\ 1.0\ \text{ppmv}$$

Since 1.0 ppmv is ≤ 2,000 ppmv, this engine is expected to comply with Rule 4801. Therefore, the following condition will be listed on the ATC to ensure compliance:

- {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]

Therefore, compliance with District Rule 4801 requirements is expected.

California Health & Safety Code 42301.6 (School Notice)

The proposed unit will not be located within 1000' of a K-12 school. Therefore, the school noticing requirements of the California Health and Safety Code do not apply.

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 prepared or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

On December 17, 2009, the District's Governing Board adopted a policy, APR 2005, *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency,* for addressing GHG emission impacts when the District is Lead Agency under CEQA and approved the District's guidance document for use by other agencies when addressing GHG impacts as lead agencies under CEQA. Under this policy, the District's determination of significance of project-specific GHG emissions is founded on the principal that projects with GHG emission reductions consistent with AB 32 emission reduction targets are considered to have a less than significant impact on global climate change. Consistent with District Policy 2005, projects complying with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, would be determined to have a less than significant individual and cumulative impact for GHG emission.

The California Air Resources Board (ARB) adopted a Cap-and-Trade regulation as part one of the strategies identified for AB 32. This Cap-and-Trade regulation is a statewide plan, supported by a CEQA compliant environmental review document, aimed at reducing or mitigating GHG emissions from targeted industries. Facilities subject to the Cap-and-Trade regulation are subject to an industry-wide cap on overall GHG emissions. Any growth in emissions must be accounted for under that cap such that a corresponding and equivalent reduction in emissions must occur to allow any increase. Further, the cap decreases over time, resulting in an overall decrease in GHG emissions.

Under District policy APR 2025, *CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation*, the District finds that the Cap-and-Trade is a regulation plan approved by ARB, consistent with AB32 emission reduction targets, and supported by a CEQA compliant environmental review document. As such, consistent with District Policy 2005, projects complying project complying with Cap-and-Trade requirements are determined to have a less than significant individual and cumulative impact for GHG emissions.

The GHG emissions increases associated with this project result from the combustion of fossil fuel(s), other than jet fuel, delivered from suppliers subject to the Cap-and-Trade regulation. Therefore, as discussed above, consistent with

District Policies APR 2005 and APR 2025, the District concludes that the GHG emissions increases associated with this project would have a less than significant individual and cumulative impact on global climate change.

District CEQA Findings

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

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Issue Authority to Construct permits C-7748-10-10, -11-10, -12-2, -13-10, -14-9, -16-7, -20-0, -21-0, -22-0 subject to the permit conditions on the attached draft Authorities to Construct in Appendix I.

X. Billing

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
C-7748-10-10	3020-02-H	54 MMBtu/hr dehydrator	$1,080.00
C-7748-11-10	3020-02-H	54 MMBtu/hr dehydrator	$1,080.00
C-7748-12-2	3020-01-E	235.5 hp electric motors	$432.00
C-7748-13-10	3020-02-H	69 MMBtu/hr dehydrator	$1,080.00
C-7748-14-9	3020-02-H	29.4 MMBtu/hr boiler	$1,080.00
C-7748-16-7	3020-08A-C	1,350 kW electrical generator	$1,607.00
C-7748-20-1	3020-10-B	131 bhp IC Engine	$123.00
C-7748-21-0	3020-01-E	647 hp electric motors	$637.00
C-7748-22-0	3020-02-H	42.19 MMBtu/hr dehydrator	$1,080.00

Appendices

I: Draft Authority to Construct Permits
II: Current Permits to Operate
III: ARB/EPA Executive Order
IV: BACT Guidelines
V: Top-Down BACT Analysis
VI: Compliance Certification
VII: Health Risk Assessment and Ambient Air Quality Analysis Results
VIII: Quarterly Net Emission Change Calculations

Appendix I

Draft Authority to Construct Permits

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-10-10

ISSUANCE DATE: DRAFT

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

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA 93622

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

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Upon implementation of the modification and startup of the equipment authorized by this Authority to Construct (ATC), ATC C-7748-10-7 and -10-9 shall be cancelled. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This Authority to Construct (ATC) shall be implemented concurrently with ATCs C-7748-10-10, -11-10, -13-10, -16-7, -22-0. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 5,335 lb, 2nd quarter - 5,335 lb, 3rd quarter - 5,335 lb, and fourth quarter - 5,336 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

6. ERC Certificate Number N-1359-2 (or a certificate split from this certificate) 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] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
9. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201, 4309 and 4801] Federally Enforceable Through Title V Permit
10. 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] Federally Enforceable Through Title V Permit
11. The combined annual emissions from units -10, -11, -13, -16, and -22, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 1,796 lb-SOx/year, 8,770 lb-PM10/year, 129,622 lb-CO/year, and 7,770 lb-VOC/year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
12. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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 0.011 lb-VOC/MMBtu. [District Rules 2201, 4301 and 4309] Federally Enforceable Through Title V Permit
16. 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] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. Permittee shall maintain records which demonstrate the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309] Federally Enforceable Through Title V Permit
19. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration lines. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11,-13, -16, and -22. These records shall be updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
22. 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] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-11-10

ISSUANCE DATE: DRAFT

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

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA 93622

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

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Upon implementation of the modification and startup of the equipment authorized by this Authority to Construct (ATC), ATC C-7748-11-7 and -11-9 shall be cancelled. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This Authority to Construct (ATC) shall be implemented concurrently with ATCs C-7748-10-10, -11-10, -13-10, -16-7, -22-0. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 5,335 lb, 2nd quarter - 5,335 lb, 3rd quarter - 5,335 lb, and fourth quarter - 5,336 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

C-7748-11-10 : Oct 29 2015 1:39PM – GARCIAJ : Joint Inspection NOT Required

6. ERC Certificate Number N-1359-2 (or a certificate split from this certificate) 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] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
9. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201, 4309 and 4801] Federally Enforceable Through Title V Permit
10. 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] Federally Enforceable Through Title V Permit
11. The combined annual emissions from units -10, -11, -13, -16, and -22, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 1,796 lb-SOx/year, 8,770 lb-PM10/year, 129,622 lb-CO/year, and 7,770 lb-VOC/year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
12. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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 0.011 lb-VOC/MMBtu. [District Rules 2201, 4301 and 4309] Federally Enforceable Through Title V Permit
16. 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] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. Permittee shall maintain records which demonstrate the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309] Federally Enforceable Through Title V Permit
19. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration lines. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11,-13, -16, and -22. These records shall be updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
22. 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] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-12-2

ISSUANCE DATE: DRAFT

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

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA 93622

EQUIPMENT DESCRIPTION:
MODIFICATION OF VEGETABLE DEHYDRATION OPERATION (LINE C) WITH STEAM PROVIDED FROM UNIT -14 AND SERVED BY A 12,000 CFM SAUNCO MODEL 10-SIFT-100 BAGHOUSE DUST COLLECTOR WITH PRE-DEHYDRATION EQUIPMENT AND POST-DEHYDRATION EQUIPMENT (ASPIRATORS & NIPPLE SEPARATORS): RELOCATE WITHIN SAME STATIONARY SOURCE, INCREASE THE ANNUAL COMBINED EMISSIONS LIMIT AND CORRECT DIFFERENTIAL PRESSURE GAUGE READING RANGE PER MANUFACTURER'S SPECIFICATIONS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Visible emissions from the baghouse serving the vegetable dehydration line shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
C-7748-12-2 : Nov 2 2015 3:39PM -- GARCIAJ : Joint Inspection NOT Required

6. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Material removed from the dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Replacement bags numbering at least 10% of the total number of bags in the baghouse shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The baghouse shall operate at all times with a minimum differential pressure of 0.5 inches water column and a maximum differential pressure of 8 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Emissions from the vegetable dehydration line shall not exceed 0.0005 lb-PM10/ton of material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Maximum product processing rates shall not exceed 90 ton/day and 7,000 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
16. 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 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-13-10 **ISSUANCE DATE:** DRAFT

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

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA 93622

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 ANNUAL COMBINED EMISSIONS LIMIT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Upon implementation of the modification and startup of the equipment authorized by this Authority to Construct (ATC), ATC C-7748-13-7 and -13-9 shall be cancelled. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This Authority to Construct (ATC) shall be implemented concurrently with ATCs C-7748-10-10, -11-10, -13-10, -16-7, -22-0. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 5,335 lb, 2nd quarter - 5,335 lb, 3rd quarter - 5,335 lb, and fourth quarter - 5,336 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726 • (559) 230-5900 • Fax (559) 230-6061

6. ERC Certificate Number N-1359-2 (or a certificate split from this certificate) 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] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
9. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201, 4309 and 4801] Federally Enforceable Through Title V Permit
10. 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] Federally Enforceable Through Title V Permit
11. The combined annual emissions from units -10, -11, -13, -16, and -22, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 1,796 lb-SOx/year, 8,770 lb-PM10/year, 129,622 lb-CO/year, and 7,770 lb-VOC/year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
12. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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 0.011 lb-VOC/MMBtu. [District Rules 2201, 4301 and 4309] Federally Enforceable Through Title V Permit
16. 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] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309] Federally Enforceable Through Title V Permit
19. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration lines. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11,-13, -16, and -22. These records shall be updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
22. 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] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-14-9

ISSUANCE DATE: DRAFT

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

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA 93622

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: REMOVE FROM THE ANNUAL COMBINED EMISSIONS LIMIT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Upon implementation of the modification and startup of the equipment authorized by this Authority to Construct (ATC), ATC C-7748-14-6 and -14-8 shall be cancelled. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201, 4320 and 4801] Federally Enforceable Through Title V Permit
6. 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 60.48c(g)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

C-7748-14-9 : Oct 29 2015 1:39PM -- GARCIAJ : Joint Inspection NOT Required

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 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4301, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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] Federally Enforceable Through Title V Permit

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] Federally Enforceable Through Title V Permit

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

13. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

18. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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] Federally Enforceable Through Title V Permit

20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

21. Permittee shall maintain daily records of the type and quantity of fuel combusted by the boiler. [District Rules 2201 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit

22. 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, 4320 and 40 CFR 60.48c(i)] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-16-7

ISSUANCE DATE: DRAFT

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

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA 93622

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 EMISSIONS LIMIT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Upon implementation of the modification and startup of the equipment authorized by this Authority to Construct (ATC), ATC C-7748-16-4 and -16-6 shall be cancelled. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This Authority to Construct (ATC) shall be implemented concurrently with ATCs C-7748-10-10, -11-10, -13-10, -16-7, -22-0. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 5,335 lb, 2nd quarter - 5,335 lb, 3rd quarter - 5,335 lb, and fourth quarter - 5,336 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726 • (559) 230-5900 • Fax (559) 230-6061

6. ERC Certificate Number N-1359-2 (or a certificate split from this certificate) 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] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
9. 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] Federally Enforceable Through Title V Permit
10. The operation of the IC engine shall not exceed more than 180 days/year. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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] Federally Enforceable Through Title V Permit
12. The ammonia (NH3) emissions shall not exceed 10 ppmvd @ 15% O2. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
13. The combined annual emissions from units -10, -11, -13, -16, and -22, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 1,796 lb-SOx/year, 8,770 lb-PM10/year, 129,622 lb-CO/year, and 7,770 lb-VOC/year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
14. NOx, CO, VOC, and NH3 emissions shall be measured (source tested) not less than once every 12 months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
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, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. 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 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] Federally Enforceable Through Title V Permit

21. 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] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702] Federally Enforceable Through Title V Permit

23. 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] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, O2 and NH3 measurements, (2) the O2 concentration in percent and the measured NOx, 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] Federally Enforceable Through Title V Permit

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] Federally Enforceable Through Title V Permit

26. Permittee shall maintain annual records of the days the natural gas-fired IC engine is operated. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11,-13, -16, and -22. These records shall be updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit

28. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4702] Federally Enforceable Through Title V Permit

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] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-20-1

ISSUANCE DATE: DRAFT

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

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA 93622

EQUIPMENT DESCRIPTION:
131 BHP (INTERMITTENT) GENERAC MODEL SD080 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Upon implementation of the modification and startup of the equipment authorized by this Authority to Construct (ATC), ATC C-7748-20-0 shall be cancelled. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Authorities to Construct (ATCs) C-7748-10-10, -11-10, -13-10, -16-7 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
5. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. {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]
7. {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

Arnaud Marjollet, Director of Permit Services

C-7748-20-1 : Oct 29 2015 1:39PM -- GARCIAJ : Joint Inspection NOT Required

8. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
9. {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
10. Emissions from this IC engine shall not exceed any of the following limits: 2.66 g-NOx/bhp-hr, 0.7 g-CO/bhp-hr, or 0.14 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115]
11. Emissions from this IC engine shall not exceed 0.12 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
12. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
13. {3478} During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
14. {3807} An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702]
15. {3808} This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702]
16. {3496} The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115]
17. {4777} This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201 and 4702, and 17 CCR 93115]
18. {4263} The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
19. {3475} 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 and 17 CCR 93115]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-21-0

ISSUANCE DATE: DRAFT

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

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA 93622

EQUIPMENT DESCRIPTION:
DRY VEGETABLE PROCESSING OPERATION CONSISTING OF: PNEUMATIC CONVEYING SYSTEM; THE STEM/LEAF SEPARATOR SYSTEM; AND THE GRAVITY SEPARATION SYSTEM ALL SERVED BY A MAC 36FRB7 BAGHOUSE AND A SAUNCO 10-SIFT-100 BAGHOUSE

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Visible emissions from the baghouses serving the vegetable milling operation shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The baghouses shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The baghouses cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

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7. Material removed from each dust collector shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Replacement bags numbering at least 10% of the total number of bags in each baghouse shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Each baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauges shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Each differential pressure gauge reading range shall be established per manufacturer's recommendation at time of start up inspection. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Each differential operating pressure range shall be monitored and recorded on each day that the baghouses operate. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Emissions from the milling operation shall not exceed 0.0335 lb-PM10/ton of material processed per baghouse. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Maximum product processed rates shall not exceed 30 ton/day and 8,250 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable milling operation. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
16. 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 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-22-0

ISSUANCE DATE: DRAFT

DRAFT

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

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA 93622

EQUIPMENT DESCRIPTION:
42.15 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE E) WITH THREE 9 MMBTU/HR MAXON MODEL NP-LE, ONE 6.9 MMBTU/HR MAXON MODEL NP-LE AND THREE 2.75 MMBTU/HR MAXON MODEL NP-LE NATURAL GAS-FIRED BURNERS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct (ATC) shall be implemented concurrently with ATCs C-7748-10-10, -11-10, -13-10, -16-7, -22-0. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOX emission reduction credits for the following quantity of emissions: 1st quarter - 5,335 lb, 2nd quarter - 5,335 lb, 3rd quarter - 5,335 lb, and fourth quarter - 5,336 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
5. ERC Certificate Number N-1359-2 (or a certificate split from this certificate) 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] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services

C-7748-22-0 : Oct 29 2015 1:39PM -- GARCIAJ : Joint Inspection NOT Required

6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. 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]
8. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201, 4309 and 4801] Federally Enforceable Through Title V Permit
9. 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] Federally Enforceable Through Title V Permit
10. The combined annual emissions from units -10, -11, -13, -16, and -22, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 1,796 lb-SOx/year, 8,770 lb-PM10/year, 129,622 lb-CO/year, and 7,770 lb-VOC/year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
11. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. 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 0.011 lb-VOC/MMBtu. [District Rules 2201, 4301 and 4309] Federally Enforceable Through Title V Permit
14. Source testing to measure NOx and CO emissions from this unit shall be conducted within 60 days of startup. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If tow of the three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 2201] Federally Enforceable Through Title V Permit
17. NOx emission for source test purposes shall be determined using EPA Method 7E or ARB Method 100. [District Rule 2201] Federally Enforceable Through Title V Permit
18. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 2201] Federally Enforceable Through Title V Permit
20. All test results for NOx shall be reported in either lb/MMBtu or ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
22. 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] Federally Enforceable Through Title V Permit
23. 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] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

24. Permittee shall maintain records which demonstrate the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309] Federally Enforceable Through Title V Permit

25. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration lines. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11,-13, -16, and -22. These records shall be updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit

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

Appendix II

Current Permits to Operate

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-7748-10-6 **EXPIRATION DATE:** 07/31/2020

EQUIPMENT DESCRIPTION:
54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE A) WITH MAXON MODEL SERIES A NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. 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]
3. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201, 4309 and 4801] Federally Enforceable Through Title V Permit
4. 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] Federally Enforceable Through Title V Permit
5. 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] Federally Enforceable Through Title V Permit
6. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
9. 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, 4301 and 4309] Federally Enforceable Through Title V Permit
10. 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] Federally Enforceable Through Title V Permit
11. 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] Federally Enforceable Through Title V Permit
12. Permittee shall maintain records which demonstrate the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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] Federally Enforceable Through Title V Permit
16. 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] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-7748-11-6 **EXPIRATION DATE:** 07/31/2020

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

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. 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]
3. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201, 4309 and 4801] Federally Enforceable Through Title V Permit
4. 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] Federally Enforceable Through Title V Permit
5. 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] Federally Enforceable Through Title V Permit
6. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
9. 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, 4301 and 4309] Federally Enforceable Through Title V Permit
10. 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] Federally Enforceable Through Title V Permit
11. 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] Federally Enforceable Through Title V Permit
12. Permittee shall maintain records which demonstrate the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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] Federally Enforceable Through Title V Permit
16. 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] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-7748-12-1 **EXPIRATION DATE:** 07/31/2020

EQUIPMENT DESCRIPTION:
VEGETABLE DEHYDRATION OPERATION (LINE C) WITH STEAM PROVIDED FROM UNIT -14 AND SERVED BY A 12,000 CFM SAUNCO MODEL 10-SIFT-100 BAGHOUSE DUST COLLECTOR WITH PRE-DEHYDRATION EQUIPMENT AND POST-DEHYDRATION EQUIPMENT (ASPIRATORS & NIPPLE SEPARATORS)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Visible emissions from the baghouse serving the vegetable dehydration line shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Material removed from the dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Replacement bags numbering at least 10% of the total number of bags in the baghouse shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 7 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Emissions from the vegetable dehydration line shall not exceed 0.0005 lb-PM10/ton of material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Maximum product processing rates shall not exceed 90 ton/day and 7,000 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-7748-13-6 **EXPIRATION DATE:** 07/31/2020

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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. 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]
3. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201, 4309 and 4801] Federally Enforceable Through Title V Permit
4. 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] Federally Enforceable Through Title V Permit
5. 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] Federally Enforceable Through Title V Permit
6. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. PM10 emissions from the handling of dehydrated material not exceed 0.005 lb-PM10/ton material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
9. 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, 4301 and 4309] Federally Enforceable Through Title V Permit
10. 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] Federally Enforceable Through Title V Permit
11. 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] Federally Enforceable Through Title V Permit
12. Permittee shall maintain records, which demonstrates the dehydrator is fired exclusively on PUC quality natural gas. [District Rule 4309] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable dehydration line. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration line. [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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] Federally Enforceable Through Title V Permit
16. 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] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-7748-14-5 **EXPIRATION DATE:** 07/31/2020

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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201, 4320 and 4801] Federally Enforceable Through Title V Permit
3. 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 60.48c(g)] Federally Enforceable Through Title V Permit
4. 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] Federally Enforceable Through Title V Permit
5. 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, 4301, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
6. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
7. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
8. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
9. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
10. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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

14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

19. Permittee shall maintain daily records of the type and quantity of fuel combusted by the boiler. [District Rules 2201 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit

20. 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] Federally Enforceable Through Title V Permit

21. 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, 4320 and 40 CFR 60.48c(i)] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-7748-16-3 **EXPIRATION DATE:** 07/31/2020

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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. 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] Federally Enforceable Through Title V Permit
4. The operation of the IC engine shall not exceed more than 180 days/year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. 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] Federally Enforceable Through Title V Permit
6. The ammonia (NH3) emissions shall not exceed 10 ppmvd @ 15% O2. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
7. 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] Federally Enforceable Through Title V Permit
8. NOx, CO, VOC, and NH3 emissions shall be measured (source tested) not less than once every 12 months. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
9. 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] Federally Enforceable Through Title V Permit
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. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit
11. 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. 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 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] Federally Enforceable Through Title V Permit

15. 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] Federally Enforceable Through Title V Permit

16. 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] Federally Enforceable Through Title V Permit

17. 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] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, O2 and NH3 measurements, (2) the O2 concentration in percent and the measured NOx, 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] Federally Enforceable Through Title V Permit

19. 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] Federally Enforceable Through Title V Permit

20. Permittee shall maintain annual records of the days the natural gas-fired IC engine is operated. [District Rule 2201] Federally Enforceable Through Title V Permit

21. 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] Federally Enforceable Through Title V Permit

22. 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. 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] Federally Enforceable Through Title V Permit

Appendix III

ARB/EPA Executive Order

EXHAUST EMISSIONS DATA

GENERAC® | INDUSTRIAL POWER

CERTIFICATION DATA

STATEMENT OF EXHAUST EMISSIONS
2014 FPT DIESEL FUELED GENERATOR

The measured emissions values provided here are proprietary to Generac and it's authorized dealers. This information may only be disseminated upon request, to regulatory governmental bodies for emissions permitting purposes or to specifying organizations as submittal data when expressly required by project specifications, and shall remain confidential and not open to public viewing. This information is not intended for compilation or sales purposes and may not be used as such, nor may it be reproduced without the expressed written permission of Generac Power Systems, Inc. The data provided shall not be meant to include information made public by Generac.

Generator Model:	**SD080**	EPA Certificate Number:	**EFPXL06.7DGB-003**
kW_e Rating:	**80**	CARB Certificate Number:	**Not Applicable**
Engine Family:	**EFPXL06.7DGB**	SCAQMD CEP Number:	**511714**
Engine Model:	**F4GE9485A*J**	Emission Standard Category:	**Tier 3**
Rated Engine Power (BHP)*:	**131**	Certification Type:	**Stationary Emergency CI (40 CFR Part 60 Subpart IIII)**
Fuel Consumption (gal/hr)*:	**6.84**		
Aspiration:	**Turbo/Aftercooled**		
Rated RPM:	**1800**		

*Engine Power and Fuel Consumption are declared by the Engine Manufacturer of Record and the U.S. EPA.

Emissions based on engine power of specific Engine Model.
(These values are actual composite weighted exhaust emissions results over the EPA 5-mode test cycle.)

CO	NOx + NMHC	PM	
0.9	**3.8**	**0.16**	Grams/kW-hr
0.7	**2.8**	**0.12**	Grams/bhp-hr

- The stated values are actual exhaust emission test measurements obtained from an engine representative of the type described above.
- Values based on 5-mode testing are official data of record as submitted to regulatory agencies for certification purposes. Testing was conducted in accordance with prevailing EPA protocol, which is typically accepted by SCAQMD and other regional authorities.
- No emissions values provided above are to be construed as guarantees of emission levels for any given Generac generator unit.
- Generac Power Systems, Inc. reserves the right to revise this information without prior notice.
- Consult state and local regulatory agencies for specific permitting requirements.
- The emission performance data supplied by the equipment manufacturer is only one element required toward completion of the permitting and installation process. State and local regulations may vary on a case-by-case basis and local agencies must be consulted by the permit application/equipment owner prior to equipment purchase or installation. The data supplied herein by Generac Power Systems cannot be construed as a guarantee of installability of the generating set.

Appendix IV

BACT Guidelines

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 1.6.13*

Last Update: 6/26/1998

Dehydrator - Vegetable, Continuous Process

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC		Use of PUC-quality natural gas fuel	
PM10		PUC-quality natural gas fuel and vents ducted to a cyclone (>90% control efficiency) on product transfer points.	baghouse
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)	

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 s 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**

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 3.3.12*

Last Update: 3/19/2015

Non-Agricultural Fossil** Fuel-Fired IC Engines > 50 bhp

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	1. For all compression-ignited engines: Use of an engine meeting the latest Tier standard 2. For all spark-ignited engines: 25 ppmvd @ 15% O2 or 0.15 g/bhp-hr	1. For all compression-ignited engines: 50 percent reduction of latest Tier standard for VOC emissions using a catalytic oxidation system. 2. For rich-burn spark-ignited engines: 12 ppmvd @ 15% O2 or 0.069 g/bhp-hr	Electric Motor (except for engines that will be used to generate electricity)
SOx	Compliance with District Rule 4702 SOx Emission Control Requirements		Electric Motor (except for engines that will be used to generate electricity)
PM10	0.06 g/bhp-hr (Total PM)***		Electric Motor (except for engines that will be used to generate electricity)
NOx	0.07 g/bhp-hr or 5 ppmvd @ 15% O2		1. 2 ppmvd @ 15% O2 Natural Gas-Fired Turbine 2. Electric Motor (except for engines that will be used to generate electricity)
CO	1. For compression-ignited engines > 300 bhp and < or = 500 bhp: 49 ppmvd @ 15% O2 2. For compression-ignited engines > 500 bhp: 23 ppmvd @ 15% O2 3. For four stroke lean burn spark-ignited engines > 500 bhp: 47 ppmvd @ 15% O2 4. For all engines rated > or = 2,064 bhp: 33 pmvd @ 15% O2 5. For all other engines (not included in categroies 1 through 4 above): 56 ppmvd @ 15% O2 or 0.6 g/bhp-hr	For all compression-ignited engines: 12 ppmvd @ 15% O2 using an oxidation catalyst	Electric Motor (except for engines that will be used to generate electricity)

** 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.

***This total PM10 emission limit is based on EPA Method 5 (front hald and back half) testing, which typically yields results as much as four times higher than when using the ISO 8178 Test Method. The ISO 8178 Test Method only reports filterable (i.e. front half) emissions.

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 s 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**

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 3.3.12*

Last Update: 3/19/2015

Non-Agricultural Fossil** Fuel-Fired IC Engines > 50 bhp

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	1. For all compression-ignited engines: Use of an engine meeting the latest Tier standard 2. For all spark-ignited engines: 25 ppmvd @ 15% O2 or 0.15 g/bhp-hr	1. For all compression-ignited engines: 50 percent reduction of latest Tier standard for VOC emissions using a catalytic oxidation system. 2. For rich-burn spark-ignited engines: 12 ppmvd @ 15% O2 or 0.069 g/bhp-hr	Electric Motor (except for engines that will be used to generate electricity)
SOx	Compliance with District Rule 4702 SOx Emission Control Requirements		Electric Motor (except for engines that will be used to generate electricity)
PM10	0.06 g/bhp-hr (Total PM)***		Electric Motor (except for engines that will be used to generate electricity)
NOx	0.07 g/bhp-hr or 5 ppmvd @ 15% O2		1. 2 ppmvd @ 15% O2 Natural Gas-Fired Turbine 2. Electric Motor (except for engines that will be used to generate electricity)
CO	1. For compression-ignited engines > 300 bhp and < or = 500 bhp: 49 ppmvd @ 15% O2 2. For compression-ignited engines > 500 bhp: 23 ppmvd @ 15% O2 3. For four stroke lean burn spark-ignited engines > 500 bhp: 47 ppmvd @ 15% O2 4. For all engines rated > or = 2,064 bhp: 33 pmvd @ 15% O2 5. For all other engines (not included in categroies 1 through 4 above): 56 ppmvd @ 15% O2 or 0.6 g/bhp-hr	For all compression-ignited engines: 12 ppmvd @ 15% O2 using an oxidation catalyst	Electric Motor (except for engines that will be used to generate electricity)

** 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.

***This total PM10 emission limit is based on EPA Method 5 (front hald and back half) testing, which typically yields results as much as four times higher than when using the ISO 8178 Test Method. The ISO 8178 Test Method only reports filterable (i.e. front half) emissions.

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 s a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

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

Appendix V
Top-Down BACT Analysis

Top Down BACT Analysis for Dehydrators C-7748-10, -11, -13, -22

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.

II. BACT Analysis for VOC:

BACT Guideline 1.6.13 applies to vegetable dehydrators.

a. Step 1 - Identify All Possible Control Technologies

BACT guideline 1.6.13 identifies the following control technologies for VOC:

Pollutant	Achieved in Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
VOC		Use of PUC-quality Natural Gas Fuel	

b. Step 2 - Eliminate Technologically Infeasible Options

There are no infeasible options.

c. Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Natural Gas with LPG Backup or Propane Fired

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the most stringent control technology listed in Step 3; therefore, a cost effective analysis is not required.

e. Step 5 - Select BACT

BACT for VOC is the use of PUC-quality natural gas fuel. The applicant has proposed to solely fire each of the new dehydrators on PUC-quality natural gas. Thus, BACT requirements for VOC are satisfied.

III. BACT Analysis for CO:

BACT Guideline 1.6.13 applies to vegetable dehydrators.

a. Step 1 - Identify All Possible Control Technologies

BACT guideline 1.6.13 identifies the following control technologies for CO:

Pollutant	Achieved in Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
CO	Use of PUC-quality Natural Gas Fuel		

b. Step 2 - Eliminate Technologically Infeasible Options

There are no infeasible options.

c. Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Natural Gas with LPG Backup or Propane Fired

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the most stringent control technology listed in Step 3; therefore, a cost effective analysis is not required.

e. Step 5 - Select BACT

BACT for CO is the use of PUC-quality natural gas fuel. The applicant has proposed to solely fire each of the new dehydrators on PUC-quality natural gas. Thus, BACT requirements for CO are satisfied.

IV. BACT Analysis for PM_{10}:

BACT Guideline 1.6.13 applies to vegetable dehydrators.

a. Step 1 - Identify All Possible Control Technologies

BACT guideline 1.6.13 identifies the following control technologies for PM_{10}:

Pollutant	Achieved in Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
PM_{10}		PUC-Quality natural gas and vents on product transfer points ducted to a cyclone (>90% control efficiency)	Baghouse

The use of a cyclone or baghouse is feasible for controlling process emissions; however, these control options were not intended to be options for controlling PM_{10} emissions from the combustion of fuel. Since the proposed dehydrating operations only trigger BACT for PM_{10} that results from the combustion of fuel, the only option that will be considered is the use of PUC-Quality Natural Gas.

b. Step 2 - Eliminate Technologically Infeasible Options

There are no infeasible options.

c. Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. PUC-Quality Natural Gas

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the most stringent control technology listed in Step 3; therefore, a cost effective analysis is not required.

e. Step 5 - Select BACT

BACT for PM_{10} is the use of PUC-quality natural gas fuel. The applicant has proposed to solely fire each of the new dehydrators on PUC-quality natural gas. Thus, BACT requirements for PM_{10} are satisfied.

V. BACT Analysis for SOx:

BACT Guideline 1.6.13 applies to vegetable dehydrators.

a. Step 1 - Identify All Possible Control Technologies

BACT guideline 1.6.13 identifies the following control technologies for SO_x:

Pollutant	Achieved in Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
SO_x	Use of PUC-quality Natural Gas Fuel		

b. Step 2 - Eliminate Technologically Infeasible Options

There are no infeasible options.

c. Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Natural Gas with LPG Backup or Propane Fired

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the most stringent control technology listed in Step 3; therefore, a cost effective analysis is not required.

e. Step 5 - Select BACT

BACT for SOx is the use of PUC-quality natural gas fuel. The applicant has proposed to solely fire each of the new dehydrators on PUC-quality natural gas. Thus, BACT requirements for SOx are satisfied.

Top Down BACT Analysis for Emergency IC Engine C-7748-20

BACT Guideline 3.1.1 (September 10, 2013) applies to emergency diesel IC engines. In accordance with the District BACT policy, information from that guideline will be utilized without further analysis.

1. BACT Analysis for NO_X Emissions:

a. Step 1 - Identify all control technologies

BACT Guideline 3.1.1 identifies only the following option:

- *Latest EPA Tier Certification level for applicable horsepower range*

To determine the latest applicable Tier level, the following EPA and state regulations were consulted:

- 40 CFR Part 89 – Control of Emissions from New and In-Use Nonroad Compression – Ignition Engines
- 40 CFR Part 1039 – Control of Emissions from New and In-Use Nonroad Compression-Ignition Engines
- Title 17 CCR, Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines

40 CFR Parts 89 and 1039, which apply only to nonroad engines, do not directly apply because the proposed emergency engine(s) do not meet the definition of a nonroad engine. Therefore, only Title 17 CCR, Section 93115 applies directly to the proposed emergency engine(s).

Title 17 CCR, Section 93115.6(a)(3)(A) (CARB stationary diesel engine ATCM) applies to emergency standby diesel-fired engines and requires that such engines be certified to the emission levels in Table 1 (below).

Table 1: Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines g/bhp-hr (g/kW-hr)					
Maximum Engine Power	**Tier**	**Model Year(s)**	**PM**	**NMHC+NOx**	**CO**
50 ≤ HP < 75 (37 ≤ kW < 56)	2	2007	0.15 (0.20)	5.6 (7.5)	3.7 (5.0)
	4i	2008+		3.5 (4.7)	
75 ≤ HP < 100 (56 ≤ kW < 75)	2	2007	0.15 (0.20)	5.6 (7.5)	3.7 (5.0)
	3	2008+		3.5 (4.7)	
100 ≤ HP < 175 (75 ≤ kW < 130)	3	2007	0.15 (0.20)	3.0 (4.0)	3.7 (5.0)
		2008+			
175 ≤ HP < 300 (130 ≤ kW < 225)	3	2007	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)
		2008+			
300 ≤ HP < 600 (225 ≤ kW < 450)	3	2007	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)
		2008+			
600 ≤ HP ≤ 750 (450 ≤ kW ≤ 560)	3	2007	0.15 (0.20)	3.0 (4.0)	2.6 (3.5)
		2008+			
HP > 750 (kW > 560)	2	2007	0.15 (0.20)	4.8 (6.4)	2.6 (3.5)
		2008+			

Therefore, the most stringent applicable emission standards are those listed in the CARB ATCM (Table 1).

For IC engines rated greater than or equal to 50 hp and less than 75 hp, the highest Tier required is Tier 4i. For IC engines rated greater than or equal to 75 hp and less than 750 hp, the highest Tier reqired is Tier 3. For engines rated equal to or greater than 750 hp, the highest Tier required is Tier 2.

Also, please note that neither the state ATCM nor the Code of Federal Regulations require the installation of IC engines meeting a higher Tier standard than those listed above for emergency applications, due to concerns regarding the effectiveness of the exhaust emissions controls during periods of short-term operation (such as testing operational readiness of an emergency engine).

The proposed engine(s) is/are rated at 131 hp. Therefore, the applicable control technology option is EPA Tier 3 certification.

b. Step 2 - Eliminate technologically infeasible options

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

c. Step 3 - Rank remaining options by control effectiveness

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

d. Step 4 - Cost Effectiveness Analysis

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

e. Step 5 - Select BACT

BACT for NOx will be the use of an EPA Tier 3 certified engine. The applicant is proposing such a unit. Therefore, BACT will be satisfied.

Top Down BACT Analysis for Fossil Fuel-Fired Cogen C-7748-16

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. 0.07 g/bhp-hr or 5 ppmv @ 15% O_2 – Technologically Feasible
2. 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. 0.07 g/bhp-hr or 5 ppmv @ 15% O_2 – Technologically Feasible

Step 4 - Cost Effectiveness Analysis

Since there is only one remaining option, a cost effectiveness analysis is not required.

Step 5 - Select BACT

BACT for NO_x emissions is 0.07 g/bhp-hr or 5 ppmv @ 15% O_2. The facility has proposed NO_X emissions of 5 ppmvd @ 15% O_2; therefore, BACT is satisfied.

Appendix VI

Compliance Certification

Received
AUG 10 2015
SJVUAPCD

San Joaquin Valley
Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

[X] SIGNIFICANT PERMIT MODIFICATION
[ ] MINOR PERMIT MODIFICATION
[ ] ADMINISTRATIVE AMENDMENT

COMPANY NAME: Olam West Coast Inc.	FACILITY ID: C – 7748
1. Type of Organization:[X] Corporation [ ] Sole Ownership [ ] Government [ ] Partnership [ ] Utility	
2. Owner's Name:	
3. Agent to the Owner:	

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

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

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

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

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

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

Nazer Ali — Signature of Responsible Official

8/7/2015 — Date

Nazer Ali
Name of Responsible Official (please print)

Environmental Health and Safety Director
Title of Responsible Official (please print)

Appendix VII

Health Risk Assessment and Ambient Air Quality Analysis Results

San Joaquin Valley Air Pollution Control District
Risk Management Review

To:	Jesse Garcia – Permit Services
From:	Kyle Melching – Technical Services
Date:	September 23, 2015
Facility Name:	Olam West Inc.
Location:	47641 W. Nees Ave., Firebaugh
Application #(s):	C-7748-12-2, 21-0, & 22-0
Project #:	C-1152363

A. RMR SUMMARY

RMR Summary			
Categories	**42.15 MMBtu/hr NG Burner (Unit 22-0)**	**Project Totals**	**Facility Totals**
Prioritization Score	0.00	0.00	>1
Acute Hazard Index	0.00	0.00	0.00
Chronic Hazard Index	0.00	0.00	0.00
Maximum Individual Cancer Risk	**4.15E-10**	4.15E-10	1.06E-06
T-BACT Required?	**No**		
Special Permit Conditions?	**Yes**		

Proposed Permit Conditions

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

Unit 12-2

1. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] N

Unit 21-0

1. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] N

Unit 22-0

1. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] N

B. RMR REPORT

I. Project Description

Technical Services received a request on September 9, 2015, to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for a facility proposing to relocate a dehydrator (Unit -12), which receives heat from an existing boiler within the same stationary source. The facility will also be installing a new parsley milling operation and stall a new vegetable dehydration operation with a 42.15 MMBtu/hr natural gas-fired dehydration line.

II. Analysis

For the Risk Management Review, toxic emissions from the project were calculated using District approved emission for natural gas external combustion. No HAPs were calculated for the dehydrator process for Unit 12 or the parsley milling operation since those are considered food grade products. In accordance with the District's *Risk Management Policy for Permitting New and Modified Sources* (APR 1905-1, March 2, 2001), risks from the proposed project were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEART's database. The prioritization score for the project was less than 1.0 (see RMR Summary Table); however, the facility's combined prioritization scores totaled to greater than one. Therefore, a refined Health Risk Assessment was required and performed for the project. analyzed projects a refined Health Risk Assessment was ran and performed for the project. The AERMOD model was used, with the parameters outlined below and meteorological data for 2005-2009 from Fresno 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 San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP) and the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) 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 12-2) (AAQA Only)			
Source Type	Point	**Nearest Receptor (m)**	701
Stack Height (m)	2.13	**Closest Receptor Type**	Business
Stack Diameter (m)	0.61	**Project Location**	Rural
Stack Exit Velocity (m/s)	19.4	**Stack Exit Temperature (K)**	294
PM10 Emission Rate (lb/hr)	0.0019	**PM10 Emission Rate (lb/yr)**	4

Analysis Parameters (Unit 21-0) (Stack A) (AAQA Only)			
Source Type	Point	**Nearest Receptor (m)**	701
Stack Height (m)	1.83	**Closest Receptor Type**	Business
Stack Diameter (m)	0.76	**Project Location**	Rural
Stack Exit Velocity (m/s)	12.42	**Stack Exit Temperature (K)**	294
PM10 Emission Rate (lb/hr)	0.02	**PM10 Emission Rate (lb/yr)**	275

Analysis Parameters (Unit 21-0) (Stack B) (AAQA Only)			
Source Type	Point	**Nearest Receptor (m)**	701
Stack Height (m)	6.10	**Closest Receptor Type**	Business
Stack Diameter (m)	1.07	**Project Location**	Rural
Stack Exit Velocity (m/s)	6.42	**Stack Exit Temperature (K)**	405.22
PM10 Emission Rate (lb/hr)	0.02	**PM10 Emission Rate (lb/yr)**	275

Analysis Parameters (Unit 22-0) (RMR &AAQA)			
Source Type	Point	**Nearest Receptor (m)**	701
Stack Height (m)	6.32	**Closest Receptor Type**	Business
Stack Diameter (m)	1.45	**Project Location**	Rural
Stack Exit Velocity (m/s)	49.02	**Stack Exit Temperature (K)**	350
NG Usage (mmscf/hr)	0.042	**NG Usage (mmscf/yr)**	182.09
NOx Emission Rate (day/yr)	60.7	**NOx Emission Rate (lb/yr)**	38,488
SOx Emission Rate (day/yr)	2.9	**SOx Emission Rate (lb/yr)**	2,652
CO Emission Rate (day/yr)	295.8	**CO Emission Rate (lb/yr)**	124,415
PM10 Emission Rate (day/yr)	7.85	**PM10 Emission Rate (lb/yr)**	10,673

The results from the Criteria Pollutant Modeling are as follows:

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

	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.
[1]The project was compared to the 1-hour NO2 National Ambient Air Quality Standard that became effective on April 12, 2010, using the District's approved procedures.
[2]The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

III. Conclusion

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

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

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

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

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 VIII

Quarterly Net Emissions Change Calculations

Quarterly Net Emissions Change (QNEC)

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

QNEC = PE2 - PE1, where:

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

Using the values in Sections VII.C.2 and VII.C.6 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

$PE2_{quarterly}$ = $PE2_{annual}$ ÷ 4 quarters/year
= 4 lb/year ÷ 4 qtr/year
= 1 lb PM_{10}/qtr

$PE1_{quarterly}$= $PE1_{annual}$ ÷ 4 quarters/year
= 4 lb/year ÷ 4 qtr/year
= 1 lb PM_{10}/qtr

Quarterly NEC [QNEC] for C-7748-12			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO_X	0	0	0
SO_X	0	0	0
PM_{10}	1	1	0
CO	0	0	0
VOC	0	0	0

Quarterly NEC [QNEC] for C-7748-20			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO_X	8.5	0	8.5
SO_X	0	0	0
PM_{10}	0.5	0	0.5
CO	2.5	0	2.5
VOC	0.5	0	0.5

Quarterly NEC [QNEC] for C-7748-21			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO_X	0	0	0
SO_X	0	0	0
PM_{10}	137.5	0	137.5
CO	0	0	0
VOC	0	0	0

$NEC_{SLC} = PE2_{SLC} - PE1_{SLC}$, where:

NEC_{SLC} = Quarterly Net Emissions Change for units covered by the SLC.
$PE2_{SLC}$ = PE2 for all units covered by the SLC.
$PE1_{SLC}$ = PE1 for all units covered by the SLC.

Quarterly NEC [QNEC] for C-7748-10, -11, -13, -16, -22			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO_X	9,040.75	5,484.5	3,556.25
SO_X	449.00	163.25	285.75
PM_{10}	2,192.5	788.00	1,404.5
CO	32,405.5	4,390.5	28,015
VOC	1,942.5	1,618.25	324.25