San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

April 21, 2021

Mr. Chris Bennett
Olam Spices
47641 W Nees Ave
Firebaugh, CA 93622

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
Facility Number: C-7748
Project Number: C-1203750

Dear Mr. Bennett:

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. The modification consists of installation of a new pasteurization operation (permit unit C-7748-23), consisting of two 6 MMBtu/hr each natural gas-fired dryers and associated equipment, to the existing vegetable dehydration operations (permit unit -10, -11, -13, and -22). The new pasteurization operation will be included in an existing Specific Limiting Condition (SLC), which limits the annual NOx, SOx, PM_{10}, CO, and VOC emissions shared by permit units -10, -11, -13, -16, and -22. The existing SLC will be increased for SOx, PM_{10}, CO and VOC emissions due to addition of the new operation. Since a new unit will be added to the existing SLC and the SLC will be modified, all existing units (-10, -11, -13, -16, and -22) which are part of the SLC will also be modified with this project. In addition, two existing vegetable milling operations (permit units -1 and -2) will be modified in this project to add new cyclones, add new unit -23 to existing baghouses shared with units -1 and -2, and to correct the equipment listed on each permit.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the 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.

Samir Sheikh
Executive Director/Air Pollution Control Officer

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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,

Brian Clements
Director of Permit Services

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email
cc: Laura Yannayon, EPA (w/enclosure) via EPS

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Installation of a New Pasteurization Operation

Facility Name:	Olam Spices	Date:	April 21, 2021
Mailing Address:	47641 W Nees Ave, Firebaugh, CA 93622	Engineer:	Sajjad Ahmad
		Lead Engineer:	Derek Fukuda
Contact Person:	Cindy Xiong		
Telephone:	(559) 753-8136		
E-Mail:	cindy.xiong@olamnet.com		
Application #s:	C-7748-1-7, -2-10, -10-15, -11-15, -13-13, -16-12, -22-3 and -23-0		
Project #:	C-1203750		
Deemed Complete:	October 15, 2020		

I. Proposal

Olam Spices (Olam) is applying for Authority to Construct (ATC) permits for the installation of a new pasteurization operation and associated process equipment to the existing vegetable dehydration facility. The new pasteurization operation (ATC C-7748-23-0) will be located between the existing dehydration operations A, B, and D, currently permitted under Permits to Operate (PTOs) C-7748-10, -11, and -13, respectively, and the existing milling operations, mill rooms 1 and 2 (Permit Units C-7748-1 and -2). See process flow diagram in Section IV below.

The new pasteurization operation involves combustion emissions (NOx, SOx, PM_{10}, CO, VOC) from two new 6 MMBtu/hr-each natural gas-fired fluid bed dryer burners and material handling emissions (PM_{10} only) from various points of the operation. Olam has requested to include emissions associated with the new pasteurization operation as part of the existing annual Specific Limiting Condition (SLC) that currently combines combustion and material handling emissions from Permit Units C-7748-10, -11, -13, -16, and -22 as below:

- 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, 94,698 lb-CO/year, and 8,580 lb-VOC/year. [District Rules 2201 and 4102]

As calculated in Section VII of this document, this condition will be modified as follows to include new unit -23:

- The combined annual emissions from units -10, -11, -13, -16, -22, and -23, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 2,096 lb-SOx/year, 9,598 lb-PM10/year, 113,023 lb-CO/year, or 9,736 lb-VOC/year. [District Rules 2201 and 4102]

As shown above, existing SLC will be modified to include new unit -23 and allowable emission limits will be increased for all pollutants, except for NOx emissions. Pursuant to District Policy APR-1420 – *NSR Calculations for Units with Specific Limiting Conditions (3/12/07)*, ATCs are required for all existing units within the SLC for the modification of existing SLC to change the allowable emissions. In this case, all existing units within the SLC will also trigger District Rule 2201 modifications.

Existing milling operations (permit units -1 and -2) will also be modified with this project, as the new pasteurization operation cyclones will be connected to the existing Saunco Model 128FLB-144 baghouse (currently shared by units -1 and -2) and Donaldson Model 225FS baghouse (currently shared by units -1, -2, -10, -11, & -13). Olam has also requested that equipment description for permit unit C-7748-1 get corrected as part of this permitting action as it currently doesn't state the existing Cyclone Separator associated with Mill Room #1. In addition, the facility has requested that the Drum Dumper identified in Permit Unit C-7748-2 be renamed to Dump Station. Dump Station is the common terminology used at the Olam facility.

Since this project involves modification of the existing SLC, all ATCs associated with permit units within the SLC will be required to be implemented concurrently. Therefore the following condition will be listed on ATCs C-7748-10-15, -11-15, -13-13, -16-12, -22-3, and -23-0 to ensure compliance:

- Authority to Construct (ATC) permits C-7748-10-15, -11-15, -13-13, -16-12, -22-3, and -23-0 shall be implemented concurrently. [District Rule 2201]

Draft ATCs are included in **Appendix A**, whereas current PTOs are included in **Appendix B**.

Olam received their Title V Permit on August 31, 2015. 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 Authorities to Construct. Olam must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (8/15/19)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (8/15/19)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4301	Fuel Burning Equipment (12/17/92)
Rule 4309	Dryers, Dehydrators, and Ovens (12/15/05)
Rule 4702	Internal Combustion Engines (11/14/13)
Rule 4801	Sulfur Compounds (12/17/92)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

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

IV. Process Description

The Olam vegetable dehydration facility currently includes receiving, transferring, dehydration, milling, sorting, blending, agglomeration, and packaging operations that use various equipment and processes to produce final products. As stated in Section I above, Olam is proposing to add a new pasteurization operation (ATC -23-0) to be located between the existing dehydration operations and the existing milling operations.

Under current operations, process material from Dehydration Dryers A, B, and D (Permit Units C-7748-10, -11, and -13, respectively) and the Dump Station is pneumatically conveyed directly to the cyclones associated with Mill Rooms #1 and 2 (Permit Units -1 and -2, respectively), followed by milling and packaging operations. Under the proposed operations, the process material from Dehydration Dryers A, B, and D and the Dump Station will instead be pneumatically conveyed to Cyclone Separators associated with the pasteurization process (one cyclone separator for each dehydration dryer/dump station). At the Cyclone Separators, air will be separated from the process material. Before venting to the atmosphere, the separated air will pass through the existing Donaldson Model 225FS Baghouse Dust Collector while the process material will drop into the Infeed Hopper.

The Donaldson Model 225FS Baghouse Dust Collector is an existing PM_{10} emissions control device and is currently shared with the Vegetable Milling Operations (Mill Rooms #1, 2, and 3 – Permit Units -1 and -2, respectively) and the Vegetable Dehydration Operations (Lines A and B – Permit Units -10 and -11, respectively). The baghouse is already sized for the additional air from the Cyclone Separators such that the maximum design flow rate of 35,000 actual cubic feet per minute (acfm) will not be affected by the additional pickup points.

From the Infeed Hopper, the process material will be divided into two identical process lines. The material will first be reclaimed by Drag-Chain Conveyors (#1 and 2) and then transferred to Weigh Conveyors (#1 and 2) followed by the Surface Pasteurization Spray Chambers (#1 and 2). In the spray chambers, a liquid solution consisting of peracetic acid and hydrogen peroxide will be sprayed onto the process material to destroy pathogens. The process material will then be transferred to the Fluid Bed Dryers (#1 and 2) to remove any remaining surface moisture and cool the process material. One natural gas-fired burner, rated 6 Million British thermal units per hour (MMBtu/hr), will be used to heat the process air used in each dryer. One cooling fan will also be used in each line to provide cooling air.

At the end of the dryers, Shaker Conveyors will be used to transfer the process material back to the pneumatic conveying system where it will be sent to new Cyclone Separators associated with the milling operations (one new Cyclone Separator for Mill Room #1 and two new Cyclone Separators for Mill Room #2). At the Cyclone Separators, air will be separated from the process material. The separated air from the Cyclone Separators associated with Mill Rooms #1 and #2 (Permit Units -1 and -2, respectively) will be served by the existing Saunco Model 128FLB-144 Baghouse Dust Collector and the Saunco Model SJB12-144-2880 Baghouse Dust Collector, respectively, while the process material will feed the existing milling operations.

The Saunco Model 128FLB-144 Baghouse Dust Collector and the Saunco Model SJB12-144-2880 Baghouse Dust Collector are existing PM_{10} emissions control devices and are currently used to control PM_{10} emissions associated with the Vegetable Milling Operations (Mill Rooms #1 and 2). The baghouses are already sized for the additional air from the Cyclone Separators such that the maximum design flow rates (22,000 cfm each) will not be affected by the additional pickup points.

If the material from the dryers is off-spec (e.g., too wet), it can be pneumatically conveyed to the proposed new Tote Off Station, consisting of a cyclone with an airlock for transfer into totes for disposal. The process air from the cyclone will be sent to the Saunco Model 128FLB-144 Baghouse Dust Collector for PM_{10} emissions control.

When needed, the process material will be able to bypass the pasteurization operation by exiting the end of the Drag-Chain Conveyors and joining the pneumatic conveying system for transfer to the Cyclone Separators associated with Mill Rooms #1 and 2. Any residual material during transitions to and from bypass mode will be sent to the proposed Tote Off Station described above.

The two new Fluid Bed Dryers, each with a Natural Gas-Fired Burner, will be new combustion emission units associated with the Pasteurization Operation. As described above, the Cyclone Separators will be used to separate air from process material and vented to dust collectors for PM_{10} emissions control. The remaining operations associated with the proposed pasteurization operations are also expected to have negligible potential PM_{10} emissions due to the Cyclone Separators removing the negligible particulate matter entrained in the process material and venting to the baghouses.

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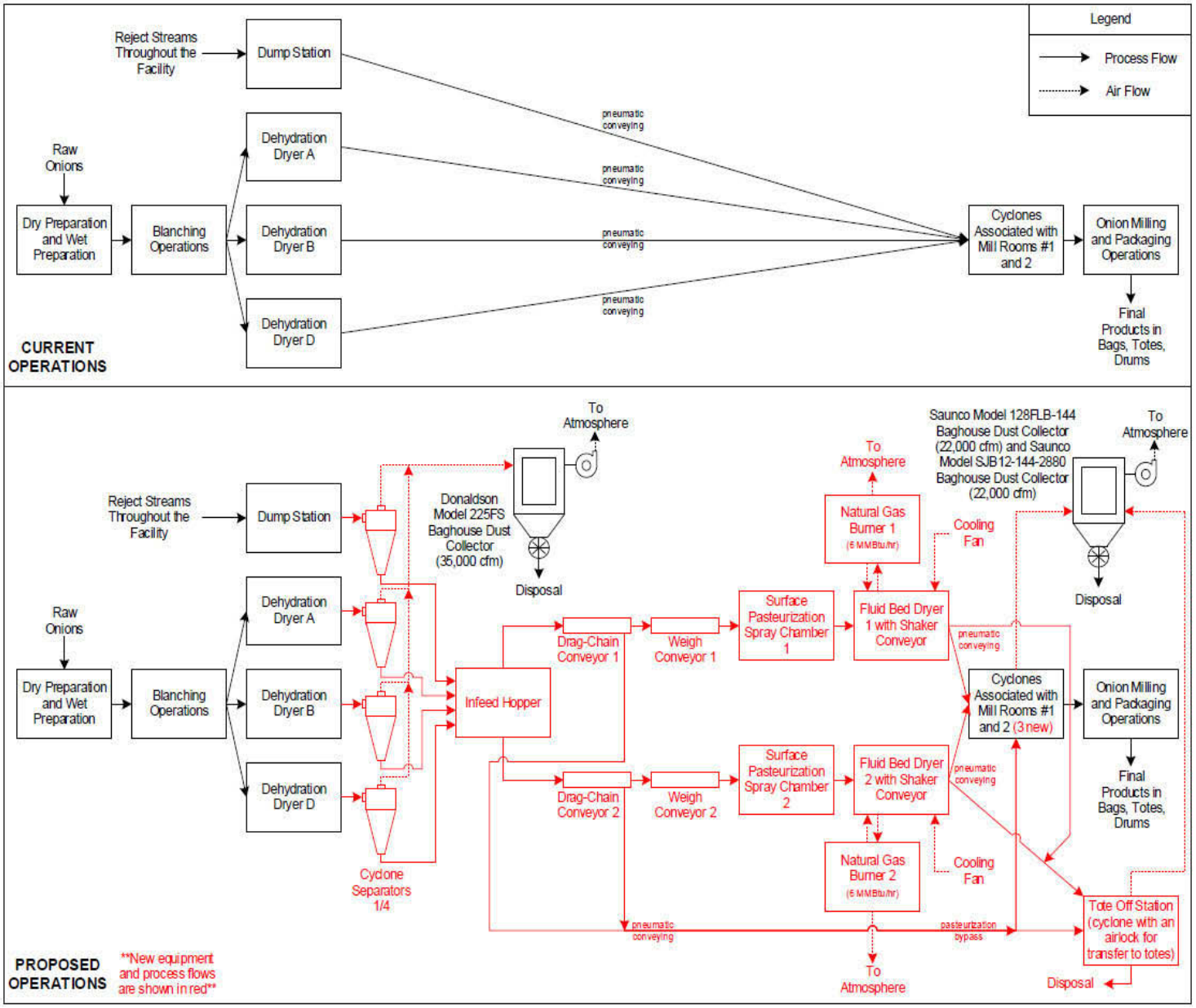

Flow Diagram of the Affected Operations

V. Equipment Listing

New Emission Unit

C-7748-23-0: PASTEURIZATION OPERATION CONSISTING OF FOUR CYCLONE SEPARATORS (ONE SERVING DUMP STATION AND THREE SHARED WITH UNITS -10, -11, -13) ALL SERVED BY A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE (SHARED WITH UNITS -1, -2, -10, -11, & -13). AN INFEED HOPPER, TWO DRAG-CHAIN CONVEYORS, TWO WEIGH CONVEYORS, TWO SURFACE PASTEURIZATION SPRAY CHAMBERS, TWO FLUIDIZED BED DRYERS (12 MMBTU/HR TOTAL) EACH WITH A SHAKER CONVEYOR, A 6 MMBTU/HR NATURAL GAS-FIRED BURNER, AND A COOLING FAN, AND A TOTE OFF STATION INCLUDING A CYCLONE SEPARATOR; ALL SERVED BY A 22,000 CFM SAUNCO MODEL SJB12-144-2880 BAGHOUSE AND 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE (BOTH BAGHOUSES ARE SHARED WITH UNITS -1 AND -2)

Modified Emission Units

Pre-Project Equipment Description:

C-7748-1-6: VEGETABLE MILLING OPERATION (MILL ROOM #1) CONSISTING OF A SWECO SEPARATORS, HAMMER MILL, POWDER MILL, ROLLER MILL, ROTO SEIVE, DUMP STATIONS, VIBRATING TABLE, GREAT WESTERN ROTATING SCREEN, AIR TABLE, AND TWO POWDER CONSOLIDATION UNITS (BAGHOUSE UNITS) ALL SERVED BY A 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE DUST COLLECTOR (SHARED WITH UNIT -2) AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -2, -10, -11) AND A SCANMASTER SATAKE COLOR SORTER

C-7748-2-9: VEGETABLE MILLING OPERATION (MILL ROOM #2 & 3) CONSISTING OF MTMA SEPARATORS, MVSB SEPARATORS, SWECO SEPARATORS, UNIFLOW SEPARATORS, PRECISION SIZER SEPARATORS, GREAT WESTERN ROTATING SCREEN SEPARATORS, HAMMER MILLS, CAGE MILLS, DESTONERS, DRAG CHAIN CONVEYORS, VIBRATING TABLES, BUCKET ELEVATORS, BELT CONVEYORS, SCAN MASTER SATAKE COLOR SORTERS, CYCLONE SEPARATORS, SCREW CONVEYORS, ALL SERVED BY A 22,000 CFM SAUNCO MODEL SJB12-144-2880 BAGHOUSE AND 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE (SHARED WITH UNIT -1); TWO PRESSURE FANS, VIBRATORY DRUM FILLING STATIONS, TOTE/SUPERSACK FILLING STATIONS, CABLEVEY TRANSPORT LINES, AIRLOCKS, AND FANS, ALL SERVED BY SAUNCO MODEL SJB12-144-2880 BAGHOUSE; AND POWDER RESCREENER, POWDER/GRANULATED GREAT WESTERN ROTATING SCREEN SEPARATORS, BAUERMEISTER POWDER MILLS, FITZ MILLS, ROLLER MILLS, DRUM DUMPER, P1 BIN, P2/P3 BIN, P4 BIN, HOLDING/SURGE BINS, COOL DOWN BINS, BATCH

BLENDERS, PACKOUT INFEED RESCREENERS, INFEED CONVEYORS, SCREW CONVEYORS, SURGE HOPPERS, AUGER PACKER, CYCLONE SEPARATORS, AIRLOCKS, AND FANS, ALL SERVED BY A 11,689 CFM AIRLANCO MODEL 144AVS12 BAGHOUSE AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -10, -11)

C-7748-10-14: 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE A) WITH MAXON MODEL SERIES A NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -2, -11)

C-7748-11-14: 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE B) WITH MAXON MODEL SERIES A NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -2, -10)

C-7748-13-12: 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-7748-16-11: 1877 HP DEUTZ MODEL TBG620V16 NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A MIRATECH SCR SYSTEM, POWERING A 1350 KW GENERATOR

C-7748-22-2: 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

Proposed Modifications:

C-7748-1-7 MODIFICATION OF VEGETABLE MILLING OPERATION (MILL ROOM #1) CONSISTING OF A SWECO SEPARATORS, HAMMER MILL, POWDER MILL, ROLLER MILL, ROTO SEIVE, DUMP STATIONS, VIBRATING TABLE, GREAT WESTERN ROTATING SCREEN, AIR TABLE, AND TWO POWDER CONSOLIDATION UNITS (BAGHOUSE UNITS) ALL SERVED BY A 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE DUST COLLECTOR (SHARED WITH UNIT -2) AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -2, -10, -11) AND A SCANMASTER SATAKE COLOR SORTER: ADD A NEW CYCLONE SEPARATOR AND CORRECT EQUIPMENT DESCRIPTION TO INCLUDE EXISTING CYCLONE ALL SERVED BY 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE (SHARED WITH UNIT -2) AND INCLUDE EMISSIONS FROM UNIT -23 TO SAUNCO MODEL 128FLB-144 BAGHOUSE (SHARED WITH UNIT -2), AND INCLUDE EMISSIONS FROM UNIT -23 TO

35,000 CFM DONALDSON MODEL 225FS BAGHOUSE (SHARED WITH UNITS -2, -10, & -11)

C-7748-2-10: MODIFICATION OF VEGETABLE MILLING OPERATION (MILL ROOM #2 & 3) CONSISTING OF MTMA SEPARATORS, MVSB SEPARATORS, SWECO SEPARATORS, UNIFLOW SEPARATORS, PRECISION SIZER SEPARATORS, GREAT WESTERN ROTATING SCREEN SEPARATORS, HAMMER MILLS, CAGE MILLS, DESTONERS, DRAG CHAIN CONVEYORS, VIBRATING TABLES, BUCKET ELEVATORS, BELT CONVEYORS, SCAN MASTER SATAKE COLOR SORTERS, CYCLONE SEPARATORS, SCREW CONVEYORS, ALL SERVED BY A 22,000 CFM SAUNCO MODEL SJB12-144-2880 BAGHOUSE AND 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE (SHARED WITH UNIT -1); TWO PRESSURE FANS, VIBRATORY DRUM FILLING STATIONS, TOTE/SUPERSACK FILLING STATIONS, CABLEVEY TRANSPORT LINES, AIRLOCKS, AND FANS, ALL SERVED BY SAUNCO MODEL SJB12-144-2880 BAGHOUSE; AND POWDER RESCREENER, POWDER/GRANULATED GREAT WESTERN ROTATING SCREEN SEPARATORS, BAUERMEISTER POWDER MILLS, FITZ MILLS, ROLLER MILLS, DRUM DUMPER, P1 BIN, P2/P3 BIN, P4 BIN, HOLDING/SURGE BINS, COOL DOWN BINS, BATCH BLENDERS, PACKOUT INFEED RESCREENERS, INFEED CONVEYORS, SCREW CONVEYORS, SURGE HOPPERS, AUGER PACKER, CYCLONE SEPARATORS, AIRLOCKS, AND FANS, ALL SERVED BY A 11,689 CFM AIRLANCO MODEL 144AVS12 BAGHOUSE AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -10, -11): INCLUDE EMISSIONS FROM UNITS -13 AND -23 TO 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE (SHARED WITH UNITS -1, -10, & -11), ADD TWO NEW CYCLONE SEPARATORS SERVED BY SAUNCO MODEL SJB12-144-2880 BAGHOUSE, INCLUDE EMISSIONS FROM (-23) UNIT TO SAUNCO MODEL 128FLB-144 BAGHOUSE (SHARED WITH UNIT -1), RENAME THE DRUM DUMPER TO DUMP STATION

C-7748-10-15: MODIFICATION OF 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE A) WITH MAXON MODEL SERIES A NATURAL GASFIRED BURNERS SERVED BY TWO CYCLONES AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -2, & -11): ADD PERMIT UNIT -23 INTO THE EXISTING SLC (SHARED BY UNITS -10, -11, -13, -16 AND -22); INCREASE THE SLC FOR SOx, PM10, CO, AND VOC; ADD A NEW CYCLONE SEPARATOR (SHARED WITH UNIT -23) SERVED BY DONALDSON MODEL 225FS BAGHOUSE (SHARED WITH UNITS -1, -2, -11, -13, & -23); AND ADD A NEW IN FEED HOPPER AND TWO DRAG-CHAIN CONVEYORS (SHARED WITH UNITS -11, -13, & -23)

C-7748-11-15: MODIFICATION OF 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE B) WITH MAXON MODEL SERIES A NATURAL GASFIRED BURNERS SERVED BY TWO CYCLONES AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -2, & -10): ADD PERMIT UNIT -23 INTO THE EXISTING SLC (SHARED BY UNITS -10, -11, -13, -16 AND -22); INCREASE THE SLC FOR SOx, PM10, CO, AND VOC; ADD A NEW CYCLONE SEPARATOR (SHARED WITH UNIT -23) SERVED BY DONALDSON MODEL 225FS BAGHOUSE (SHARED WITH UNITS -1, -2, -10, -13, & -23); AND ADD A NEW INFEED HOPPER AND TWO DRAG-CHAIN CONVEYORS (SHARED WITH UNITS -10, -13, & -23)

C-7748-13-13: 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: ADD PERMIT UNIT -23 INTO THE EXISTING SLC (SHARED BY UNITS -10, -11, -13, -16 AND -22); INCREASE THE SLC FOR SOx, PM10, CO, AND VOC; ADD A NEW CYCLONE SEPARATOR (SHARED WITH UNIT -23) SERVED BY DONALDSON MODEL 225FS BAGHOUSE (SHARED WITH UNITS -1, -2, -10, -11, & -23); AND ADD A NEW INFEED HOPPER AND TWO DRAG-CHAIN CONVEYORS (SHARED WITH UNITS -10, -11, & -23)

C-7748-16-12: MODIFICATION OF 1877 HP DEUTZ MODEL TBG620V16 NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A MIRATECH SCR SYSTEM, POWERING A 1350 KW GENERATOR: ADD PERMIT UNIT -23 INTO THE EXISTING SLC (SHARED BY UNITS -10, -11, -13, -16, AND -22) AND INCREASE THE SLC FOR SOx, PM10, CO, AND VOC

C-7748-22-3: MODIFICATION OF 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: ADD PERMIT UNIT -23 INTO THE EXISTING SLC (SHARED BY UNITS -10, -11, -13, -16, AND -22) AND INCREASE THE SLC FOR SOx, PM10, CO, AND VOC

Post-Project Equipment Description:

C-7748-1-7: VEGETABLE MILLING OPERATION (MILL ROOM #1) CONSISTING OF 2 CYCLONE SEPARATORS, A SWECO SEPARATOR, HAMMER MILL, POWDER MILL, ROLLER MILL, ROTO SIEVE, DUMP STATIONS, VIBRATING TABLE, GREAT WESTERN ROTATING SCREEN, AIR TABLE, AND TWO POWDER CONSOLIDATION UNITS (BAGHOUSE UNITS) ALL SERVED BY A 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE (SHARED WITH UNITS -2 AND -23); A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE (SHARED WITH UNITS -2, -10, -11, -13, -23); AND A SCAN MASTER SATAKE COLOR SORTER

C-7748-2-10: VEGETABLE MILLING OPERATION (MILL ROOM #2 & 3) CONSISTING OF MTMA SEPARATORS, MVSB SEPARATORS, SWECO SEPARATORS, UNIFLOW SEPARATORS, PRECISION SIZER SEPARATORS, GREAT WESTERN ROTATING SCREEN SEPARATORS, HAMMER MILLS, CAGE MILLS, DESTONERS, DRAG CHAIN CONVEYORS, VIBRATING TABLES, BUCKET ELEVATORS, BELT CONVEYORS, SCAN MASTER SATAKE COLOR SORTERS, CYCLONE SEPARATORS, SCREW CONVEYORS, ALL SERVED BY A 22,000 CFM SAUNCO MODEL SJB12-144-2880 BAGHOUSE AND 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE (SHARED WITH UNITS -1 AND -23); TWO PRESSURE FANS, VIBRATORY DRUM FILLING STATIONS, TOTE/SUPERSACK FILLING STATIONS, CABLEVEY TRANSPORT LINES, AIRLOCKS, AND FANS, ALL SERVED BY SAUNCO MODEL SJB12-144-2880 BAGHOUSE; AND POWDER RESCREENER, POWDER/GRANULATED GREAT WESTERN ROTATING SCREEN SEPARATORS, BAUERMEISTER POWDER MILLS, FITZ MILLS, ROLLER MILLS, DUMP STATION, P1 BIN, P2/P3 BIN, P4 BIN, HOLDING/SURGE BINS, COOL DOWN BINS, BATCH BLENDERS, PACKOUT INFEED RESCREENERS, INFEED CONVEYORS, SCREW CONVEYORS, SURGE HOPPERS, AUGER PACKER, CYCLONE SEPARATORS, AIRLOCKS, AND FANS, ALL SERVED BY A 11,689 CFM AIRLANCO MODEL 144AVS12 BAGHOUSE AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -10, -11, -13, & -23)

C-7748-10-15: 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE A) WITH MAXON MODEL SERIES A NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES AND COLLECTOR (SHARED WITH UNITS -1, -2, -11, -13, -23), CYCLONE SEPARATOR (SHARED WITH UNIT -23) SERVED BY A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -2, -11, -13, -23), AND AN INFEED HOPPER AND TWO DRAG-CHAIN CONVEYORS (SHARED WITH UNITS -11, -13, -23)

C-7748-11-15: 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE B) WITH MAXON MODEL SERIES A NATURAL GAS-FIRED BURNERS SERVED BY TWO CYCLONES AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -2, -10, -13, -23), CYCLONE SEPARATOR (SHARED WITH UNIT -23) SERVED BY A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -2, -10, -13, -23), AND AN INFEED HOPPER AND TWO DRAG-CHAIN CONVEYORS (SHARED WITH UNITS -10, -13, -23)

C-7748-13-13: 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, ASSOCIATED ONION SLICER EQUIPMENT, A CYCLONE SEPARATOR (SHARED WITH UNIT -23) SERVED BY A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -2, -10, -11, -23), AND AN INFEED HOPPER AND TWO DRAG-CHAIN CONVEYORS (SHARED WITH UNITS -10, -11, -23)

C-7748-16-12: 1877 HP DEUTZ MODEL TBG620V16 NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A MIRATECH SCR SYSTEM, POWERING A 1350 KW GENERATOR

C-7748-22-3: 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 -1 and -2 (Existing Mill Rooms)

Particulate matter less than 10 microns in aerodynamic diameter (PM_{10}) is the only pollutant of concern emitted from the existing milling operations. Both permit units are served by baghouses with minimum 99% control efficiency for PM_{10} emissions as stated on permit conditions. No change in control technology is expected or proposed with this project.

Units -10, -11, -13 and -22 (Existing Dehydrators)

All of these units are served by baghouses with minimum 99% control efficiency for PM_{10} emissions as stated on permit conditions. In addition, all dehydrators are required to be fired only on PUC quality natural gas as required by District Rule 4309. No change in control technology is expected or proposed with this project.

Unit -16 (Natural Gas-Fired Cogen IC Engine)

The unit is fired only on PUC quality natural gas as required by District Rule 4702. Additionally, the unit is equipped with the following emissions control systems:

- 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.

No change in control technology is expected or proposed with this project.

ATC -23-0 (New Pasteurization Operation):

This new operation will be a source of the following emissions:

1. PM_{10} emissions from various points of the operation due to vegetable handling, and
2. Natural gas combustion emissions from two new dryers.

All PM_{10} emissions from various points from the new operation will be controlled by connecting to the existing baghouses that will be shared with permit units -1, -2, -10, -11, and -13. The Saunco Model 128FLB-144 Baghouse Dust Collector, currently used to control emission units associated with the Vegetable Milling Operations (Mill Rooms #1 and 2), is also proposed to be used to control PM10 emissions from the four new Cyclone Separators associated with new pasteurization operation. The baghouse is already sized for the additional air from the new Cyclone Separators such that the design flow rate of 22,000 cfm will not be affected by the additional pickup point. Therefore, the baghouse is expected to continue to achieve a minimum control efficiency of 99% for PM_{10} emissions.

Similarly, the Saunco Model SJB12-144-2880 Baghouse Dust Collector, currently used to control PM_{10} emissions associated with the Vegetable Milling Operations (Mill Room #2), is also proposed to be used to control the four new Cyclone Separators associated with the new pasteurization operation. The baghouse is already sized for the additional air from the Cyclone Separators such that the design flow rate of 22,000 cfm will not be affected by the additional pickup points. Therefore, the baghouse is expected to continue to achieve a minimum control efficiency of 99% for PM_{10} emissions.

Combustion emissions of NOx, SOx, PM_{10}, CO, and VOC from two new 6 MMBtu/hr each dryer burners will be minimized by utilized only PUC quality natural gas fuel and low NOx burners to comply with BACT and Rule 4309 NOx emission limit of 4.3 ppmv @ 19% O_2.

VII. General Calculations

A. Assumptions

To streamline emission calculations, $PM_{2.5}$ emissions are assumed to be equal to PM_{10} emissions. Only if needed to determine if a project is a Federal major modification for $PM_{2.5}$ will specific $PM_{2.5}$ emission calculations be performed.

Unit -1 (Mill Room #1)

- PM_{10} is only pollutant of concern from this operation.
- No changes to the emission factors are proposed with this project.
- Maximum throughout for Mill Room #1: 150 tons/day and 23,255 tons/year (current PTO).
- The Saunco Model 128FLB-144 Baghouse Dust Collector has a 99% control efficiency (current PTO).

Unit -2 (Mill Rooms #2 & 3)

- PM_{10} is only pollutant of concern from this operation.

- No changes to the emission factors are proposed with this project.
- Maximum throughout combined for Mill Room #2 & 3: 225 tons/day and 36,000 tons/year (current PTO).
- The Saunco Model SJB12-144-2880 Baghouse Dust Collector has a 99% control efficiency (current PTO).

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

- The units are fired solely on PUC quality natural gas (current PTOs)
- 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-SOx/MMBtu, taken from District Policy APR-1720.
- The pre and post-project combined daily product processed in the three existing dehydration lines shall not exceed 375 tons/day (current PTOs)
- The pre and post project combined annual product processed in the three existing dehydration lines shall not exceed 59,255 tons/year (current PTOs)

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

- Ammonia slip is 10 ppm @ 15% O2.
- The daily emissions are based on 24 hours per day (worst case)
- The maximum annual natural gas fuel usage in the IC engine is limited to 68.72 MMscf/year (current PTO)The engine is assumed to have a thermal efficiency of 30% (worst-case assumption used in Project C-1100957)

Unit -23 (New Pasteurization Operation)

- The four new Cyclone Separators associated with the new Pasteurization Operation will be served by the existing Donaldson Model 225FS Baghouse Dust Collector (shared with Permit Units -1, -2, -10, -11, -13, and -23). Whereas, the existing Saunco Model 128FLB-144 Baghouse Dust Collector (shared with Permit Units -2 and -23) will serve the cyclone at the Tote Off Station).
- Emissions from the new Cyclone Separator includes particulate matter from material transfer and handling only. PM_{10} is only pollutant of concern.
- No changes to the emission factors are proposed with this project. The proposed emission factor will be based on previous projects referenced in facility permitting actions for properly designed baghouses (i.e., dried/dehydrated vegetable bulk product transfer point served by a baghouse with a 99% control efficiency).
- The dust collectors proposed to control the Cyclone Separators are shared between Permit Units -1, -2, -10, -11, -13, -23. Emissions from the operation of the Cyclone Separators will be accounted for under Permit Unit -23.
- Maximum throughout for Permit Unit -23 will be equivalent to the existing throughput for combined Permit Units -10, -11, -13: 375 tons/day, 59,255 tons/year. The throughput of the dump station and the cyclone associated with the Tote Off Station is expected to be negligible.
- The Donaldson Model 225FS Baghouse Dust Collector and the Saunco Model 128FLB-144 Baghouse Dust Collector both have a 99% control efficiency.

- The maximum operating schedule will be 24 hours per day and 8,760 hours per year (worst case).
- The unit will be fired solely on PUC quality 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)

Units Sharing SLC (Units -10, -11, -13, -16, -22, and -23):

- Emissions from Permit Units -10, -11, -13, -16, and -22 have an annual specific limiting condition (SLC) for PM_{10}, SOx, NOx, VOC, and CO that combine combustion and material handling. Emissions from Permit Unit -23 (both the Cyclone Separators and the Two Fluid Bed Dryers with Natural Gas-Fired 6 MMBtu/hr Burners) will be added to the SLC. The SLC for NOx is proposed to remain the same while the SLC for SOx, PM_{10}, CO, and VOC is proposed to increase as calculated in Section VII.C.2 below.

B. Emission Factors

Units -1 and -2 (Milling Operations):

Unit	Equipment	Pre EF	Post EF	Source
C-7748-1-7	Mill room #1	0.052 lb-PM_{10}/ton of material processed	0.052 lb-PM_{10}/ton of material processed	Current PTO
C-7748-2-10	Mill room #2	0.052 lb-PM_{10}/ton of material processed	0.052 lb-PM_{10}/ton of material processed	Current PTO
	Powder Consolidation System	0.0024 lb-PM_{10} per ton of powder processed	0.0024 lb-PM_{10} per ton of powder processed	Current PTO
	Packing System	0.052 lb-PM_{10} per ton of material processed	0.052 lb-PM_{10} per ton of material processed	Current PTO

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

PM_{10} Material Handling = **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% O_2)	Current permit
SOx	0.00285	Current permit
PM_{10}	0.014	Current permit
CO	0.144 (20.68 ppmv @ 19% O_2)	Current permit
VOC	0.011	Current permit

ATC -16-11 (NG-Fired IC Engine Cogeneration System):

All emission factors are taken from the current permit unless otherwise noted:

Pollutant	Emission Factors (EF)		
NO_X	0.06 g/bhp-hr	5 ppmvd NO_x @ 15%O_2	0.0184 lb/MMBtu**
SO_X	0.011 g/bhp-hr**	--	0.00285 lb/MMBtu*
PM_{10}	0.02 g/bhp-hr	--	0.0052 lb/MMBtu**
CO	0.6 g/bhp-hr	71 ppmvd CO @ 15%O_2	0.1592 lb/MMBtu**
VOC	0.15 g/bhp-hr	25 ppmvd VOC @ 15%O_2	0.0390 lb/MMBtu**
NH3	--	10 ppm	

* Per APR-1720
**Emission factor conversions:

NOx:

$$\frac{5\,parts}{10^6\,parts}\times\frac{20.9}{(20.9-15)}\times\frac{8710\cdot dscf}{MMBtu}\times\frac{46lb}{lb-mol}\times\frac{lb-mol}{379.5scf}\times\frac{459.67+60}{459.67+68}=0.0184\cdot lb-NOx/MMBtu$$

SOx:

$$\frac{0.00285\cdot lb-SOx}{10^6\,Btu}\times\frac{2542.5\cdot Btu}{hp-hr}\times\frac{453\cdot g}{lb}\times\frac{100}{30}=0.011\cdot g-SOx/bhp-hr$$

PM_{10}:

$$\frac{0.02\cdot g-PM10}{bhp-hr}\times\frac{hp-hr}{2542.5\cdot Btu}\times\frac{10^6\,Btu}{MMBtu}\times\frac{lb}{453.6\cdot g}\times\frac{30}{100}=0.0052\cdot lb-PM10/MMBtu$$

CO:

$$\frac{71parts}{10^6\,parts}\times\frac{20.9}{(20.9-15)}\times\frac{8710\cdot dscf}{MMBtu}\times\frac{28lb}{lb-mol}\times\frac{lb-mol}{379.5scf}\times\frac{459.67+60}{459.67+68}=0.1592\cdot lb-CO/MMBtu$$

VOC:

$$\frac{0.15\cdot g-PM10}{bhp-hr}\times\frac{hp-hr}{2542.5\cdot Btu}\times\frac{10^6\,Btu}{MMBtu}\times\frac{lb}{453.6\cdot g}\times\frac{30}{100}=0.0390\cdot lb-VOC/MMBtu$$

ATC -22-3 (Dehydrator Line E):

Existing Dehydrator Combustion Emission Factors		
Pollutant	**Emission Factor (lb/MMBtu)**	**Source**
NOx	0.06 (5.25 ppmv @ 19% O_2)	Current permit
SOx	0.00285	Current permit
PM10	0.014	Current permit
CO	0.144 (20.68 ppmv @ 19% O_2)	Current permit
VOC	0.011	Current permit

ATC -23-0 (New Pasteurization Operation):

Cyclone Separators

The emission factor for this unit is based on an uncontrolled emission factor with a control efficiency applied. Uncontrolled PM emissions from a transfer point at a facility processing dehydrated material was estimated to be 0.1 lb-PM/ton, as documented in project C-970315.

PM_{10} emissions from the cyclone separator are assumed similar to the transfer point and are controlled by the Donaldson Model 225FS Baghouse Dust Collector and the Saunco Model 128FLB-144 Baghouse Dust Collector which have a control efficiencies of 99%. Per District practice, 50% of PM is PM_{10}. Therefore, the controlled PM_{10} emission factor is calculated below.

Controlled PM_{10} EF = (0.1 lb-PM/ton) x (0.5 PM_{10}/PM) x (1 – 0.99)
= 0.0005 lb-PM_{10}/ton material processed

Two Fluid Bed Dryers with Natural Gas-Fired 6 MMBtu/hr Burners (Permit Unit -23).
The following emission factors apply to the dryers:

Pollutant	Emission Factor		Source
NO_x	0.0492 lb/MMBtu	4.3 ppmv (@ 19% O2)	BACT Analysis, Table 1 of Rule 4309 (other processes), and manufacturer's guarantee
SO_x	0.00285 lb/MMBtu		District Policy APR 1720
PM_{10}	0.0076 lb/MMBtu		AP-42 Table 1.4-2
CO	0.2924 lb/MMBtu	42 ppmv (@ 19% O2)	Table 1 of Rule 4309 (other processes)
VOC	0.011 lb/MMBtu		AP-42 Table 1.4-2 (doubled to be conservative and consistent with previous projects for similar equipment)

The conversion from ppmv to lb/MMBtu is calculated as follows for NOx and CO:

$$EF_{NOx} = \left(\frac{4.3 \text{ dscf NOx}}{10^6 \text{ dscf air}}\right)\left(\frac{\text{lbmol NOx}}{379.5 \text{ dscf NOx}}\right)\left(\frac{46 \text{ lb NOx}}{\text{lbmol NOx}}\right)\left(\frac{8{,}578 \text{ dscf air}}{\text{MMBtu}}\right)\left(\frac{20.9}{20.9\text{-}19}\right) = 0.0492 \frac{\text{lb NOx}}{\text{MMBtu}}$$

$$EF_{CO} = \left(\frac{42 \text{ dscf CO}}{10^6 \text{ dscf air}}\right)\left(\frac{\text{lbmol CO}}{379.5 \text{ dscf CO}}\right)\left(\frac{28 \text{ lb CO}}{\text{lbmol CO}}\right)\left(\frac{8{,}578 \text{ dscf air}}{\text{MMBtu}}\right)\left(\frac{20.9}{20.9\text{-}19}\right) = 0.2924 \frac{\text{lb CO}}{\text{MMBtu}}$$

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Permit Unit C-7748-1-6 (Mill Room #1)

Daily Emissions
$PE1_{PM10}$ = (0.052 lb/ton) * (150 tons/day) = 7.8 lb PM_{10}/day

Annual Emissions
$PE1_{PM10}$ = (0.052 lb/ton) * (23,255 tons/year) = 1,209 lb PM_{10}/year

Permit Unit C-7748-2-9 (Mill Room #2 & 3)

Daily Emissions

Mill Room #2:

$PE1_{MR2}$ = (0.052 lb/ton) * (225 tons/day) = 11.7 lb PM_{10}/day

Powder Consolidation System:

$PE1_{PCS}$ = (0.0024 lb/ton) * (225 tons/day) = 0.5 lb PM_{10}/day

Packing System:

$PE1_{PS}$ = (0.052 lb/ton) * (225 tons/day) = 11.7 lb PM_{10}/day

$PE1_{PM10}$ = $PE1_{\text{Mill Room \#2}}$ + $PE1_{\text{Powder Consolidation System}}$ + $PE1_{\text{Packing System}}$
= 11.7 + 0.5 + 11.7 = 23.9 lb PM_{10}/day

Annual Emissions

Mill Room #2:

$PE1_{MR2}$ = (0.052 lb/ton) * (36,000 tons/year) = 1,872 lb PM_{10}/year

Powder Consolidation System:

$PE1_{PCS}$ = (0.0024 lb/ton) * (36,000 tons/year) = 86 lb PM_{10}/year

Packing System:

$PE1_{PS}$ = (0.052 lb/ton) * (36,000 tons/year) = 1,872 lb PM_{10}/year

$PE1_{PM10}$ = $PE1_{\text{Mill Room \#2}}$ + $PE1_{\text{Powder Consolidation System}}$ + $PE1_{\text{Packing System}}$
= 1,872 + 86 + 1,872 = 3,830 lb PM_{10}/year

Permit Units C-7748-10-14, -11-14, -13-12, -16-11, and -22-2 (Part of the SLC)

Daily Emissions

For calculating the Daily PE for C-7748-10, -11, -13, -22:

Max Heat Input Rating (MMBtu/hr) x EF (lb/MMBtu) x 24 hrs/day

For calculating the Daily PE for C-7748-16 is:

Bhp rating x EF (g/bhp-hr) x 24 hrs/day ÷ 453.6 g/lb

The emissions are summarized 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)
C-7748-10	77.8	3.7	20.0	186.6	14.3
C-7748-11	77.8	3.7	20.0	186.6	14.3
C-7748-13	99.4	4.7	25.1	238.5	18.2
C-7748-16	6.0	1.1	2.0	59.6	14.9
C-7748-22	60.7	2.9	14.2	145.7	11.1

Annual Emissions:

Below is a summary of the combined annual emissions based on the annual SLC listed on current permits:

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	36,163	1,796	8,770	94,698 *See Below	8,580
C-7748-11					
C-7748-13					
C-7748-16					
C-7748-22					

*CO:

The combined annual emissions limit for CO is calculated by first determining the highest equivalent natural gas usage based off of a worst case scenario for NOx, which is the limiting factor, and then calculating the maximum potential emissions for CO based off of that equivalent natural gas amount.

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 and -22	Unit -16
NO_X	0.06**	0.0184*
CO	0.144*	0.1592**

*Lowest EF
**Highest EF

Assuming unit -16, operates at its full potential for the entire year first,

68.72 MMscf/yr x (10^6 scf/MMscf) x (1000 Btu/scf) x (MMBtu/10^6 Btu) = 68,720 MMBtu/yr

And 68,720 MMBtu/yr x 0.0184 lb/MMBtu = 1,264 lb-NOx/yr

Subtracting the above calculated emissions from the combined annual limit of 36,163 lb-NOx/year = 34,899 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 = 34,899 lb-NOx/year ÷ 0.06 lb-NOx/MMBtu = 581,650 MMBtu/yr.

Combining the two calculated natural gas usage amounts = 68,720 MMBtu/yr + 581,650 MMBtu/yr = 650,370 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 650,370 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 -16 has the highest emission factor, it will be given priority to operate first to determine the worst case scenario:

0.1592 lb-CO/MMBtu x 68,720 MMBtu/yr = 10,940 lb-CO/yr.

Next, with the remaining 581,650 MMBtu/yr (650,370 MMBtu/yr – 68,720 MMBtu/hr), units -10, -11, -13 and -22 with the highest emission factor will be allowed to operate:

0.144 lb-CO/MMBtu x 581,650 MMBtu/yr = 83,758 lb-CO/yr.

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

10,940 + 83,758 lb-CO/yr = **94,698 lb-CO/yr**

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Since this is new emissions units, PE1 = 0 for all pollutants.

Summary of PE1:

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)
C-7748-1	0	0	7.8	0	0
C-7748-2	0	0	23.9	0	0
C-7748-10	77.8	3.7	20.0	186.6	14.3
C-7748-11	77.8	3.7	20.0	186.6	14.3
C-7748-13	99.4	4.7	25.1	238.5	18.2
C-7748-16	6.0	1.1	2.0	59.6	14.9
C-7748-22	60.7	2.9	14.2	145.7	11.1
C-7748-23	0	0	0	0	0

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-7748-1	0	0	1,209	0	0
C-7748-2	0	0	3,830	0	0
C-7748-10	36,163	1,796	8,770	94,698	8,580
C-7748-11					
C-7748-13					
C-7748-16					
C-7748-22					
C-7748-23	0	0	0	0	0

2. Post-Project Potential to Emit (PE2)

ATCs C-7748-1-7 and -2-10 (Mill Rooms #1, 2 & 3)

No proposed changes to the EF and throughput with the modifications with this project therefore, daily and annual PE2 = PE1.

ATCs C-7748-10-15, -11-15, -13-13, -16-12, and -22-3 (Existing Units Part of the SLC)

These existing units are part of the annual SLC. As calculated later in this section, the annual SLC will increase for SOx, PM10, CO, and VOC emissions due to the addition of the new permit unit -23. However, all increases in annual SLC for SOx, PM10, CO, and VOC emissions result from the addition of the new unit -23. Since there is no proposed changes to the EFs and throughputs of the existing units which are only being modified with this project to include the new unit in the SLC, there is no change in emissions to the existing units. Thus PE2 = PE1 for each unit.

As calculated in Section VII.C.1 above, the daily emissions are summarized in the table below:

Daily Post-Project Potential to Emit (PE2)					
ATC	NO_X (lb/day)	SO_X (lb/day)	PM_{10} (lb/day)	CO (lb/day)	VOC (lb/day)
C-7748-10-15	77.8	3.7	20.0	186.6	14.3
C-7748-11-15	77.8	3.7	20.0	186.6	14.3
C-7748-13-13	99.4	4.7	25.1	238.5	18.2
C-7748-16-12	6.0	1.1	2.0	59.6	14.9
C-7748-22-3	60.7	2.9	14.2	145.7	11.1

Annual emissions from these units will be included in the new SLC as calculated later in this section.

ATC C-7748-23-0 (New Pasteurization Operation)

Daily Emissions:

Daily Material Handling Emissions (PM10)

Daily PM_{10} emissions from material handling from the new pasteurization operation with Cyclone Separators (CS) are calculated as below:

$PE2_{CS}$ = (0.0005 lb/ton) * (375 tons/day) = 0.2 lb PM_{10}/day

Daily Natural Gas Combustion Emissions (NOx, SOx, PM10, CO, and VOC):

Dyer 1 Daily Natural Gas Combustion Emissions:

$PE2_{D1}$ = (0.0492 lb/MMBtu) * (6 MMBtu/hr) * (24 hr/day) = 7.1 lb-NO_x/day
$PE2_{D1}$ = (0.00285 lb/MMBtu) * (6 MMBtu/hr) * (24 hr/day) = 0.4 lb-SO_x/day
$PE2_{D1}$ = (0.0076 lb/MMBtu) * (6 MMBtu/hr) * (24 hr/day) = 1.1 lb PM_{10}/day
$PE2_{D1}$ = (0.2924 lb/MMBtu) * (6 MMBtu/hr) * (24 hr/day) = 42.1 lb-CO/day
$PE2_{D1}$ = (0.011 lb/MMBtu) * (6 MMBtu/hr) * (24 hr/day) = 1.6 lb-VOC/day

Dyer 2 Daily Natural Gas Combustion Emissions:

$PE2_{D2}$ = (0.0492 lb/MMBtu) * (6 MMBtu/hr) * (24 hr/day) = 7.1 lb-NO_x/day
$PE2_{D2}$ = (0.00285 lb/MMBtu) * (6 MMBtu/hr) * (24 hr/day) = 0.4 lb-SO_x/day
$PE2_{D2}$ = (0.0076 lb/MMBtu) * (6 MMBtu/hr) * (24 hr/day) = 1.1 lb PM_{10}/day
$PE2_{D2}$ = (0.2924 lb/MMBtu) * (6 MMBtu/hr) * (24 hr/day) = 42.1 lb-CO/day
$PE2_{D2}$ = (0.011 lb/MMBtu) * (6 MMBtu/hr) * (24 hr/day) = 1.6 lb-VOC/day

Permit Unit Total Daily PE2 (Unit -23-0):

Permit Unit Total Daily PE2 (lb/day)				
Pollutant	**Cyclone Separators (CS)**	**Dryer 1 (D1)**	**Dryer 2 (D2)**	**Total Daily PE2**
NOx	0.0	7.1	7.1	**14.2**
SOx	0.0	0.4	0.4	**0.8**
PM10	0.2	1.1	1.1	**2.4**
CO	0.0	42.1	42.1	**84.2**
VOC	0.0	1.6	1.6	**3.2**

Annual Emissions:

Annual Material Handling Emissions (PM10)

Annual PM_{10} emissions from material handling from the new pasteurization operation with Cyclone Separators (CS) are calculated as below:

$PE2_{CS}$ = (0.0005 lb/ton) * (59,255 tons/year) = 30 lb PM_{10}/year

Annual Natural Gas Combustion Emissions (NOx, SOx, PM10, CO, and VOC):

Dyer 1 Annual Emissions:

$PE2_{D1}$ = (0.0492 lb/MMBtu) * (6 MMBtu/hr) * (8,760 hr/year) = 2,586 lb-NO_x/year
$PE2_{D1}$ = (0.00285 lb/MMBtu) * (6 MMBtu/hr) * (8,760 hr/year) = 150 lb-SO_x/year
$PE2_{D1}$ = (0.0076 lb/MMBtu) * (6 MMBtu/hr) * (8,760 hr/year) = 399 lb PM_{10}/year
$PE2_{D1}$ = (0.2924 lb/MMBtu) * (6 MMBtu/hr) * (8,760 hr/year) = 15,369 lb-CO/year
$PE2_{D1}$ = (0.011 lb/MMBtu) * (6 MMBtu/hr) * (8,760 hr/year) = 578 lb-VOC/year

Dyer 2 Annual Emissions:

$PE2_{D2}$ = (0.0492 lb/MMBtu) * (6 MMBtu/hr) * (8,760 hr/year) = 2,586 lb-NO_x/year
$PE2_{D2}$ = (0.00285 lb/MMBtu) * (6 MMBtu/hr) * (8,760 hr/year) = 150 lb-SO_x/year
$PE2_{D2}$ = (0.0076 lb/MMBtu) * (6 MMBtu/hr) * (8,760 hr/year) = 399 lb PM_{10}/year
$PE2_{D2}$ = (0.2924 lb/MMBtu) * (6 MMBtu/hr) * (8,760 hr/year) = 15,369 lb-CO/year
$PE2_{D2}$ = (0.011 lb/MMBtu) * (6 MMBtu/hr) * (8,760 hr/year) = 578 lb-VOC/year

Permit Unit Total Annual PE2 (Unit -23-0):

Permit Unit Total Annual PE2 (lb/year)				
Pollutant	**Cyclone Separators (CS)**	**Dryer 1 (D1)**	**Dryer 2 (D2)**	**Total PE2**
NOx	0	2,586	2,586	**5,172**
SOx	0	150	150	**300**
PM10	30	399	399	**828**
CO	0	15,369	15,369	**30,738**
VOC	0	578	578	**1,156**

Calculation of New SLC (Shared by Units -10, -11, -13, -16, -22 & -23):

Annual emissions from Permit Unit -23 will be incorporated into the existing SLC (both PM_{10} emissions from material handling and combustion emissions from two fluid bed dryers with natural gas-fired 6 MMBtu/hr-each burners). Olam has requested to keep the SLC for NOx emissions the same as the pre-project limit of 36,163 lb-NOx/year; therefore, only SLC for SOx, PM10, CO and VOC emissions will increase due to the addition of new unit -23 as calculated below.

Calculation of New SLC for CO Emissions:

The new SLC for CO emissions will be back-calculated from the SLC for NOx by determining the maximum fuel usage rate and applying it to the various emission units to determine the maximum corresponding CO emissions. This calculation follows the methodology used in project #C-1152913.

The combined annual SLC for CO is calculated by first determining the maximum equivalent natural gas usage based on a worst-case scenario for NOx, which is the limiting factor, and then calculating the maximum potential emissions for CO based on that equivalent natural gas usage.

The following table summarizes the NOx and CO emission factors and the maximum annual process rate for each unit. Maximum process rates for units -10, -11, -13, -22, and -23 are calculated based on the maximum heat rating of each unit and worst case operation of 8,760 hr/day as below:

Maximum Annual Process Rate (MMBtu/year) = Heat Rating (MMBtu/hr) x 8,760 hr/year

For unit -16 (IC engine) maximum annual process rate is calculated based on the maximum fuel usage of 68.72 MMscf/year (current PTO) as below:

68.72 MMscf/yr x (10^6 scf/MMscf) x (1,000 Btu/scf) x (MMBtu/10^6 Btu) = 68,720 MMBtu/yr

Permit Unit	Operation	Emission Unit Type	Maximum Annual Process Rate (MMBtu/year)	Emission Factors (lb/MMBtu)	
				NOx	CO
C-7748-10	Vegetable Dehydration Line A (54 MMBtu/hr)	Combustion	473,040	0.06**	0.144*
C-7748-11	Vegetable Dehydration Line B (54 MMBtu/hr)	Combustion	473,040	0.06**	0.144*
C-7748-13	Vegetable Dehydration Line D (48.5 MMBtu/hr)	Combustion	424,860	0.06**	0.144*
C-7748-16	Natural Gas-Fired IC Engine (1,877 hp)	Internal Combustion	68,720	0.0184*	0.1592
C-7748-22	Vegetable Dehydration Line E (42.15 MMBtu/hr)	Combustion	369,234	0.06**	0.144*
C-7748-23	Pasteurization Operation (2 dryers @ 6 MMBtu/hr)	Combustion Dryer 1	52,560	0.0492	0.2924**
		Combustion Dryer 2	52,560	0.0492	0.2924**

* Lowest emission factor **Highest emission factor

To calculate the maximum equivalent natural gas usage based on the SLC for NOx (36,163 lb/year), it is assumed that the units with the lowest NOx emission factors operate to their full annual potential. Unit -16 has the lowest NOx emission factor and assuming it operates at its full potential for the entire year, NOx emissions are calculated as follow:

68,720 MMBtu/yr x 0.0184 lb-NOx/MMBtu = 1,264 lb-NOx/yr

Subtracting the above calculated NOx emissions for unit -16 from the combined annual SLC, provides the remaining NOx SLC as follows:

36,163 lb-NOx/yr - 1,264 lb-NOx/yr = 34,899 lb-NOx/yr

Unit -23 has the next lowest NOx emission factor. Assuming that both dryers operate at their full potential for the entire year, NOx emissions are calculated as follows:

52,560 MMBtu/yr x 0.0492 lb-NOx/MMBtu = 2,586 lb-NOx/yr (Dryer 1)
52,560 MMBtu/yr x 0.0492 lb-NOx/MMBtu = 2,586 lb-NOx/yr (Dryer 2)

Subtracingt the above calculated emissions from what is remaining of the combined annual limit provides the remaining NOx SLC as follows:

34,899 lb-NOx/yr - 2,586 lb-NOx/yr - 2,586 lb-NOx/yr = 29,727 lb-NOx/yr

Assuming that this remaining SLC will be shared equally by Units -10, -11, 13, and -22, which have the same NOx emission factor, the resulting natural gas usage is calculated as follows:

29,727 lb-NOx/yr/0.06 lb-NOx/MMBtu = 495,450 MMBtu/yr

Combining the natural gas usage amounts from above, the highest equivalent natural gas usage under the SLC is calculated as follows:

68,720 MMBtu/yr + 52,560 MMBtu/yr + 52,560 MMBtu/yr + 495,450 MMBtu/yr = 669,290 MMBtu/yr

To calculate the worst-case annual CO emissions, it is assumed that the maximum natural gas usage of 669,290 MMBtu/yr will be used by the unit with the highest CO emission factor first and the remaining natural gas will be used by other units in the order of lowering CO emission factors. Since Unit -23 has the highest CO emission factor, it will be assumed that it operates first at full capacity to calculate the worst-case CO emissions as follows:

52,560 MMBtu/yr x 0.2924 lb-CO/MMBtu = 15,369 lb-CO/yr (Dryer 1)
52,560 MMBtu/yr x 0.2924 lb-CO/MMBtu = 15,369 lb-CO/yr (Dryer 2)

The remaining natural gas usage is calculated as follows:

669,290 MMBtu/yr - 52,560 MMBtu/yr - 52,560 MMBtu/yr = 564,170 MMBtu/yr

Unit -16 has the next highest CO emission factor and there is enough remaining natural gas for this unit to operate at its full potential for the entire year. Thus worst case CO emissions from this unit is calculated as follows:

68,720 MMBtu/yr x 0.1592 lb-CO/MMBtu = 10,940 lb-CO/yr

The remaining natural gas usage is calculated as follows:

564,170 MMBtu/yr - 68,720 MMBtu/yr = 495,450 MMBtu/yr

Assuming that the above calculated remaining natural gas will be used equally by Units -10, -11, 13, and -22, which have the same CO emission factor, the resulting CO emissions are calculated as follows:

495,450 MMBtu/yr x 0.144 lb-CO/MMBtu = 71,345 lb-CO/yr

Therefore, the maximum combined CO emission limit is calculated as follows:

15,369 lb-CO/yr + 15,369 lb-CO/yr + 10,940 lb-CO/yr + 71,345 lb-CO/yr = **113,023 lb-CO/yr**

This will be the new SLC for CO emissions.

Calculation of New SLC for SOx, PM10, and VOC Emissions:

New SLC for SOx, PM_{10}, and VOC emissions will be calculated by adding current SLC and emissions from new permit unit -23 using the following equation and summarized in the table below:

New SLC (lb/year) = Current SLC (lb/year) + Annual PE2 from Unit -23 (lb/year)

Pollutant	Current SLC	Annual PE2 Unit -23	New SLC
	lb/year	lb/year	lb/year
SOx	1,796	300	2,096
PM10	8,770	828	9,598
VOC	8,580	1,156	9,736

Summary of Current and New SLCs:

The current and new SLCs shared by permit units -10, -11, -13, -16, -22, and -23 are summarized in the table below:

Pollutant	Current SLC	New SLC
	lb/year	lb/year
NOx	36,163	36,163
SOx	1,796	2,096
PM10	8,770	9,598
CO	94,698	113,023
VOC	8,580	9,736

Summary of PE2:

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-7748-1	0	0	7.8	0	0
C-7748-2	0	0	23.9	0	0
C-7748-10	77.8	3.7	20.0	186.6	14.3
C-7748-11	77.8	3.7	20.0	186.6	14.3
C-7748-13	99.4	4.7	25.1	238.5	18.2
C-7748-16	6.0	1.1	2.0	59.6	14.9
C-7748-22	60.7	2.9	14.2	145.7	11.1
C-7748-23	14.2	0.8	2.4	84.2	3.2

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-7748-1	0	0	1,209	0	0
C-7748-2	0	0	3,830	0	0
C-7748-10	36,163	2,096	9,598	113,023	9,736
C-7748-11					
C-7748-13					
C-7748-16					
C-7748-22					
C-7748-23					
Project Total (lb/year)	36,163	2,096	14,637	113,023	9,736
Project Total (ton/year)*	18.1	1.0	7.3	56.5	4.9

*Project total calculated in ton/year for PSD Major Source determination purpose in Section VII.C.9 of this evaluation.

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

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

Based on calculations in **Appendix H**, SSPE1 is summarized in the table below:

SSPE1 (lb/year)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
C-7748-1-6	0	0	1,209	0	0
C-7748-2-9	0	0	3,830	0	0
ATC C-7748-5-4	0	0	2,652	0	0
C-7748-6-4					
C-7748-7-2	0	0	260	0	0
C-7748-8-2	0	0	520	0	0
C-7748-9-5	0	0	78	0	0
C-7748-10-14	36,163	1,796	8,770	94,698	8,580
C-7748-11-14					
C-7748-13-12					
C-7748-16-11					
C-7748-22-2					
C-7748-12-1	0	0	4	0	0
C-7748-14-11	2,060	734	773	15,453	1,416
C-7748-17-1	0	0	19	0	0
C-7748-18-3	0	0	664	0	0
ATC C-7748-20-1	38	0	2	10	2
C-7748-21-2	0	0	396	0	0
Pre-Project SSPE	38,261	2,530	19,177	110,161	9,998

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

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

SSPE2 (lb/year)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
C-7748-1-7	0	0	1,209	0	0
C-7748-2-10	0	0	3,830	0	0
ATC C-7748-5-4	0	0	2,652	0	0
C-7748-6-4					
C-7748-7-2	0	0	260	0	0
C-7748-8-2	0	0	520	0	0
C-7748-9-5	0	0	78	0	0
ATC C-7748-10-15	36,163	2,096	9,598	113,023	9,736
ATC C-7748-11-15					
ATC C-7748-13-13					
ATC C-7748-16-12					
ATC C-7748-22-3					
ATC C-7748-23-0					
C-7748-12-1	0	0	4	0	0
C-7748-14-11	2,060	734	773	15,453	1,416
C-7748-17-1	0	0	19	0	0
C-7748-18-3	0	0	664	0	0
ATC C-7748-20-1	38	0	2	10	2
C-7748-21-2	0	0	396	0	0
Post-Project SSPE2	38,261	2,830	20,005	128,486	11,154

5. Major Source Determination

Rule 2201 Major Source Determination:

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

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

Rule 2201 Major Source Determination (lb/year)						
	NO_X	SO_X	PM_{10}	$PM_{2.5}$	CO	VOC
SSPE1	38,261	2,530	19,177	19,177	110,161	9,998
SSPE2	38,261	2,830	20,005	20,005	128,486	11,154
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	Yes	No	No	No	No	No

Note: $PM_{2.5}$ assumed to be equal to PM_{10}

As seen in the table above, the facility is an existing Major Source for NOx and will remain a Major Source for this pollutant after 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)						
	NO_2	VOC	SO_2	CO	PM	PM_{10}
Estimated Facility PE before Project Increase	19.1	5.0	1.3	55.1	9.6	9.6
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source?	No	No	No	No	No	No

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)

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

Pursuant to District Rule 2201, BE = PE1 for:

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

Otherwise,

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

C-7748-1-7 and -2-10:
As shown in Section VII.C.5 above, the facility is not a major source for PM_{10} emissions. Therefore BE=PE1.

C-7748-23-0:
Since this is a new emissions unit, BE = PE1 = 0 for all pollutants.

C-7748-10-15, -11-15, -13-13, -16-12 and -22-3:
Facility is a major source for NOx emissions only; therefore, each of the existing units must be clean, highly utilized, or fully offset in order for BE_{SLC} to equal $PE1_{SLC}$ for NOx emissions:

a. BE_{SLC} NO_X

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

C-7748-10-15, -11-15, -13-13, and -22-3 (Dehydrator Lines A, B, D, and E):
The dehydrators -10, -11, and -22 were originally permitted in 2009 under project C-1084411, whereas unit -22 was permitted in 2015 under project C-1552914. BACT Guideline 1.6.13 was applicable to these units at the time of original permitting and was rescinded on November 17, 2020. BACT 1.6.13 listed the following NOx emission controls:

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
NOx		1. Low-NOx Burner with SCR (<0.036 lb/MMBtu) 2. Low NOx Burner (0.036 lb/MMBtu) 3. Natural Gas Fired Burner (<0.06lb/MMBtu)	

The first two options were eliminated due to concerns of product discoloration using low NOx controls and are not technologically feasible for this facility and the last option was selected as BACT. Therefore, these existing dehydrators are considered clean emission units.

C-7748-16-12 (IC Engine Cogeneration System):
BACT Guideline 3.3.12 applicable to this unit was rescinded on March 7, 2019 and listed AIP BACT for NOx emissions of 0.07 g/bhp-hr or 5 ppmvd @ 15% O_2. This unit was initially permitted in 2010 and is equipped with SCR system to achieve NOx emission limit of 5 ppmvd NOx @ 15% O2 (equivalent to 0.06 g-NOx/hp-hr). Therefore, this existing unit is a clean emission unit.

As demonstrated above, all emission units in this project are equipped with emission control technologies, which meet the requirements for achieved-in-practice BACT during the five years immediately prior to the submission of the complete application. Therefore, $BE_{SLC}=PE1_{SLC}$.

b. BE_{SLC} SO_X

Unit Located at a Non-Major Source
As shown in Section VII.C.5 above, the facility is not a major source for SO_X emissions.

Therefore Baseline Emissions $BE_{SLC}=PE1_{SLC}$.

c. BE_{SLC} PM_{10}

Unit Located at a Non-Major Source
As shown in Section VII.C.5 above, the facility is not a major source for PM_{10} emissions.

Therefore $BE_{SLC}=PE1_{SLC}$.

d. BE_{SLC} CO

Unit Located at a Non-Major Source
As shown in Section VII.C.5 above, the facility is not a major source for CO emissions.

Therefore $BE_{SLC}=PE1_{SLC}$.

e. BE_{SLC} VOC

Unit Located at a Non-Major Source
As shown in Section VII.C.5 above, the facility is not a major source for VOC emissions.

Therefore $BE_{SLC}=PE1_{SLC}$.

BE SLC (lb/year)						
	BE	**NO_X**	**SO_X**	**PM_{10}**	**CO**	**VOC**
C-7748-1	BE=PE1	0	0	1,209	0	0
C-7748-2	BE=PE1	0	0	3,830	0	0
C-7748-10	BE_{SLC}=$PE1_{SLC}$	36,163	1,796	8,770	94,698	8,580
C-7748-11						
C-7748-13						
C-7748-16						
C-7748-22						

7. SB 288 Major Modification

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

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 further SB 288 Major Modification calculation is required.

As calculated in the Calculation Section above:

SB 288 Major Modification Thresholds			
Pollutant	**Project PE2 (lb/year)**	**Threshold (lb/year)**	**SB 288 Major Modification Calculation Required?**
NO_x	36,163	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 and no further discussion is required.

8. Federal Major Modification / New Major Source

Federal Major Modification

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

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

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. In step 1, emission decreases cannot

cancel out the increases. Step 2 allows consideration of the project's net emissions increase as described in 40 CFR 51.165 and the Federal Clean Air Act Section 182 (e), as applicable.

Step 1: Project Emissions Increase

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project:

Emission Increase = PE2

C-7748-23-0:

Dryer 1

$PE2_{NOX}$ = (0.0492 lb/MMBtu) * (6 MMBtu/hr) * (8,760 hr/year) = 2,586 lb NO_X/year

Dryer 2

$PE2_{NOX}$ = (0.0492 lb/MMBtu) * (6 MMBtu/hr) * (8,760 hr/year) = 2,586 lb NO_X/year

The project's combined total emission increases are compared to the Federal Major Modification Thresholds in the following table.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	**Total Emissions Increases (lb/yr)**	**Thresholds (lb/yr)**	**Federal Major Modification?**
NO_x*	5,172	0	Yes

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

Since there is an increase in NO_x emissions, this project constitutes a Federal Major Modification. Consequently, as discussed below in the offset section of this evaluation, pursuant to Section 7.4.2.1 of District Rule 2201, NO_x Emission Reduction Credits (ERCs) used to satisfy the offset quantity required under District Rule 2201 must be surplus at the time of use (ATC issuance).

Separately, Federal Offset Quantity is calculated below.

Federal Offset Quantity Calculation

The Federal Offset Quantity (FOQ) is only calculated for the pollutants for which a project is a Federal Major Modification or a New Major Source as determined above.

Pursuant to 40 CFR 51.165(a)(3)(ii)(J), the federal offset quantity is the sum of the annual emission changes for all new and modified emission units in a project calculated as the potential to emit after the modification (PE2) minus the actual emissions (AE) for each emission unit times the applicable federal offset ratio.

FOQ = ∑(PE2 – AE) x Federal offset ratio

Actual Emissions

As described in 40 CFR 51.165(a)(1)(xii), actual emissions (AE), as of a particular date, shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the particular date and which is representative of normal source operation. The reviewing authority shall allow the use of a different time period upon a determination that it is more representative of normal source operation.

C-7748-23:
Since this is a new unit, AE = 0

C-7748-10, -11, -13, -16, and -22:
For modified existing units C-7748-10, -11, -13, -16 and -22, Actual Emissions (AE) are calculated based on the emission factors based on the source tests and the fuel usage records provided by the facility for the years 2019 and 2020 (see **Appendix I**) as summarized in the table below:

Permit No.	NOx Emission Factor (lb/MMBtu)	2019	2020
		Fuel Use	Fuel Use
		(MMBtu/yr)	(MMBtu/yr)
C-7748-10 (Dryer #1)	0.0555	97,606	82,039
C-7748-11 (Dryer #2)	0.0505	97,606	82,039
C-7748-13 (Dryer #4)	0.0583	129,537	103,754
C-7748-16 (Cogen)	0.007*	20,494	9,074
C-7748-22 (Dryer #5)	0.024	79,130	75,747

*The source test NOx value of 1.9 ppmv @15% O2 (see Appendix I) is converted into units of lb/MMBtu as below:

$$\frac{15 \text{ parts-NOx}}{10^6 \text{ parts}} \times \frac{20.9}{20.9\text{-}15} \times \frac{8{,}710 \text{ dscf}}{1 \text{ MMBtu}} \times \frac{46 \text{ lb-NOx}}{1 \text{ lb-mole}} \times \frac{1 \text{ lb-mole}}{379.5 \text{ ft}^3} \times \frac{459.67 + 60}{459.67 + 68} = 0.007 \frac{\text{lb-NOx}}{\text{MMBtu}}$$

Actual Emissions (AE) are calculated by multiplying emission factors with the fuel usage records listed in the above table for each year and then calculating the average actual emissions in the table below:

Permit No.	2019 Actual Emissions (lb/year)	2020 Actual Emissions (lb/year)	Average Actual Emissions (lb/yr)
C-7748-10 (Dryer #1)	5,417	4,553	4,985
C-7748-11 (Dryer #2)	4,929	4,143	4,536
C-7748-13 (Dryer #4)	7,552	6,049	6,801
C-7748-16 (Cogen)	143	64	104
C-7748-22 (Dryer #5)	1,899	1,818	1,859
		Total NOx AE =	18,285

Federal Offset Ratio

According the CAA 182(e), the federal offset ratio for VOC and NOx is 1.5 to 1 (due to the District extreme non-attainment status for ozone). Otherwise, the federal offset ratio for PM2.5, PM10, and SOx is 1.0 to 1.

Federal Offset Quantity (FOQ)

The NOx emissions from the 1 new unit and 5 existing modified units are subject to a federally enforceable permit condition limiting NOx emissions from these units not to exceed 36,163 lb-NOx/year.

Therefore

$FOQ = [\sum(PE2 - AE)_{\text{All new and modified units under the SLC}}] \times \text{Federal offset ratio}$

$= [(\text{NOx SLC} - \sum \text{NOx AE}_{\text{All new and modified units under the SLC}}] \times \text{Federal offset ratio}$

NOx **Federal Offset Ratio** **1.5**

Permit No.	Post-Project Potential to Emit (PE2) (lb/year)	Actual Emissions (lb/year)	Emissions Change (lb/yr)
C-7748-10-15	36,163	4,985	
C-7748-11-15		4,536	
C-7748-13-13		6,801	
C-7748-16-12		104	
C-7748-22-3		1,859	
C-7748-23-0		0	
Total =	36,163	18,285	17,878
		∑(PE2 – AE) (lb/year):	**17,878**
		Federal Offset Quantity (lb/year): ∑(PE2 – AE) x 1.5	**26,817**
		Federal Offset Quantity (tons/year): ∑(PE2 – AE) x 1.5 ÷ 2,000	**13.4**

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

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

- NO_2 (as a primary pollutant)
- SO_2 (as a primary pollutant)
- CO
- PM
- PM_{10}

I. Project Emissions Increase - New Major Source Determination

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

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

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO_2	**VOC**	**SO_2**	**CO**	**PM**	**PM_{10}**
Total PE from New and Modified Units*	18.1	4.9	1.0	56.5	7.3	7.3
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	No	No	No	No	No	No

*Project total calculated in ton/year in Section VII.C.2 of this evaluation.

10. Quarterly Net Emissions Change (QNEC)

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

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

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

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

*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

Permit Unit -23-0 - Pasteurization Operation

As seen in Section VII.C.2 above, the applicant is proposing to install a new pasteurization operation with two new dryers with Natural Gas-Fired Burners each with a PE2 greater than 2 lb/day for NO_X and CO. BACT is triggered for NO_X since the PE2 is greater than 2 lb/day. However, BACT is not triggered for CO since the SSPE2 for CO is not greater than 200,000 lb/year, as demonstrated in Section VII.C.5 above.

The applicant is also proposing to install new Cyclone Separators associated with the Pasteurization Operation and the Tote Off Station. However, the new Cyclone Separators are material collection devices and thus will not be new emissions units. Therefore, BACT is not triggered for new cyclone separators.

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

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

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

AIPE = PE2 – HAPE

Where,

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

HAPE = PE1 x (EF2/EF1)

Where,

PE1 = The emissions unit's PE prior to modification or relocation, (lb/day)
EF2 = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF2 is greater than EF1 then EF2/EF1 shall be set to 1
EF1 = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

$$AIPE = PE2 - (PE1 * (EF2 / EF1))$$

ATCs C-7748-1-7, -2-10, -10-15, -11-15, -13-13, -16-12, & -22-3

As calculated in Section VII.C of this evaluation, there is no change in emission factors and daily PE for all existing units being modified with this project. Therefore, the AIPE cannot be greater than 2.0 lb/day for any modified emissions units and BACT is not triggered.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does not constitute an SB 288 and/or Federal Major Modification for any pollutant. Therefore BACT is not triggered for any pollutant.

2. BACT Guideline

BACT Guideline 1.6.13 would have applied to the two Fluid Bed Dryers with Natural Gas-Fired Burners [Dehydrator – Vegetable, Continuous Process]. However, this BACT Guideline has been rescinded by the District on November 17, 2020. Since no other existing BACT Guidelines would apply to the pasteurization operation dryers, a new project specific BACT analysis will be performed (see **Appendix C**).

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a project specific BACT analysis shall be performed as a part of the application review for each application where no current BACT Guideline exists.

Pursuant to the attached project specific BACT Analysis (see **Appendix C**), BACT has been satisfied with the following:

NO_X: Natural Gas Fuel with NOx 4.3 ppmvd @ 19% O_2 (equivalent to 0.0492 lb/MMBtu)

Therefore, the following conditions will be listed on ATC -23-0 to ensure compliance with the BACT requirement:

- The dryers shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4801]

- Emissions from the natural gas-fired units shall not exceed any of the following limits: 4.3 ppmv NOx @ 19% O_2 or 0.0492 lb-NO_X/MMBtu, 0.00285 lb-SO_X/MMBtu, 0.0076 lb-PM_{10}/MMBtu, 42 ppmv CO @ 19% O_2 or 0.2924 lb-CO/MMBtu, 0.011 lb-VOC/MMBtu/hr. [District Rules 2201 and 4309]

B. Offsets

1. Offset Applicability

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

Offset Determination (lb/year)					
	NO_X	**SO_X**	**PM_{10}**	**CO**	**VOC**
SSPE2	38,261	2,830	20,005	128,486	11,154
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	Yes	No	No	No	No

2. Quantity of Offsets Required

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

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

Offsets Required (lb/year) = (Σ[PE2 – BE] + ICCE) x DOR, for all new or modified emissions units in the project,

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

Pursuant to Rule 2201 and District Policy APR 1420, *NSR Calculations for Units with Specific Limiting Conditions (3/12/2007)*, the quantity of offsets required for a project will be determined by comparing post-project PE for the SLC ($PE2_{SLC}$) to the pre-project BE for the SLC (BE_{SLC}).

Additionally, the policy states that if the SLC is for a pollutant exceeding the Major Source threshold and any unit under the SLC is not a Highly-Utilized, Fully-Offset, or Clean Emissions Unit, then the sum of the actual emissions from all units in the SLC will be used to determine the pre-project BE_{SLC}.

As previously established in this evaluation, all emissions units included in the existing SLC are Clean Emissions Units (meet the District's determination of achieved-in-practice BACT). Therefore, the pre-project BE_{SLC} is equal to the pre-project PE emissions ($BE_{SLC} = PE1_{SLC}$).

Based on the information above, the emissions increase to be offset for this project should be calculated as follows:

Emissions Increase (lb/year) = $PE2_{SLC} – BE_{SLC}$

Where

$PE2_{SLC}$ = Post-Project Potential to Emit for the SLC Shared with Permit Units -10, -11, -13, -16, -22, -23, (lb/year)
BE_{SLC} = $PE1_{SLC}$ = Pre-Project Potential to Emit for the SLC Shared with Permit Units -10, -11, -13, -16, -22, -23, (lb/year)

Therefore, for NO_X:

Emissions Increase (lb/year) = $PE2_{SLC} – BE_{SLC}$
= $PE2_{SLC} – PE1_{SLC}$
= 36,163 lb-NO_X/year - 36,163 lb-NO_X/year
= 0 lb-NO_X/year

As indicated above, the quantity of offsets for this project is zero for all pollutants.

C. Public Notification

1. Applicability

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

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

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

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.7 and 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

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

Offset Thresholds				
Pollutant	**SSPE1 (lb/year)**	**SSPE2 (lb/year)**	**Offset Threshold**	**Public Notice Required?**
NO_X	38,261	38,261	20,000 lb/year	No
SO_X	2,530	2,830	54,750 lb/year	No
PM_{10}	19,177	20,005	29,200 lb/year	No
CO	110,161	128,486	200,000 lb/year	No
VOC	9,998	11,154	20,000 lb/year	No

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

d. SSIPE > 20,000 lb/year

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

SSIPE Public Notice Thresholds					
Pollutant	**SSPE2 (lb/year)**	**SSPE1 (lb/year)**	**SSIPE (lb/year)**	**SSIPE Public Notice Threshold**	**Public Notice Required?**
NO_x	38,261	38,261	0	20,000 lb/year	No
SO_x	2,830	2,530	300	20,000 lb/year	No
PM_{10}	20,005	19,177	828	20,000 lb/year	No
CO	128,486	110,161	18,325	20,000 lb/year	No
VOC	11,154	9,998	1,156	20,000 lb/year	No

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

e. Title V Significant Permit Modification

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

2. Public Notice Action

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

D. Daily Emission Limits (DELs)

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

Proposed Rule 2201 (DEL) Conditions:

Unit -1 (Mill Room #1)

- Emissions from the vegetable milling room shall not exceed 0.052 lb-PM_{10}/ton of material processed. [District Rule 2201]
- The daily material processed shall not exceed 150 tons/day. [District Rule 2201]
- The annual material processed shall not exceed 23,255 tons/year. [District Rule 2201]

Unit -2 (Mill Rooms #2 & 3)

- Emissions from the vegetable milling room shall not exceed 0.052 lb-PM_{10} per ton of material processed. [District Rule 2201]
- Emissions from the powder consolidation system shall not exceed 0.0024 lb-PM_{10} per ton of powder processed. [District Rule 2201]
- Emissions from the packing system shall not exceed 0.052 lb-PM_{10} per ton of material processed. [District Rule 2201]
- The daily throughput (weight of material processed) of Mill Room #2 & 3 overall shall not exceed 225 tons per day. [District Rule 2201]
- The annual throughput (weight of material processed) of Mill Room #2 & 3 overall shall not exceed 36,000 tons per year. [District Rule 2201]

Units -10, -11, -13, -16, -22, and -23 (Modified SLC):

- The combined annual emissions from units -10, -11, -13, -16, -22, and -23, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 2,096 lb-SOx/year, 9,598 lb-PM10/year, 113,023 lb-CO/year, or 9,736 lb-VOC/year. [District Rules 2201 and 4102]

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

- The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day of dry material exiting the dryer. [District Rule 2201]

- The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year of dry material exiting the dryer. [District Rule 2201]

- PM10 emissions from the handling of dehydrated material not exceed 0.0005 lb-PM10/ton material processed. [District Rule 2201]

- 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, 20.68 ppmvd CO @ 19% O2 or 0.144 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rules 2201, 4301 and 4309]

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

- The natural gas usage in the IC engine shall not exceed 68.72 MMscf/year. [District Rule 2201]

- 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]

- The ammonia (NH3) emissions shall not exceed 10 ppmvd @ 15% O2. [District Rules 2201 and 4102]

Unit -22 (Vegetable Dehydration Line E):

- 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, 20.68 ppmvd CO @ 19% O2 or 0.144 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rules 2201, 4301 and 4309]

Unit -23 (New Pasteurization Operation)

- Emissions from the natural gas-fired units shall not exceed any of the following limits: 4.3 ppmvd NOX @ 19% O2 or 0.0492 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 42 ppmvd CO @ 19% O2 or 0.2924 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rules 2201, 4301 and 4309]

E. Compliance Assurance

1. Source Testing

Units -1, -2, -10, -11, -13, and -22 (Mill Rooms and Dehydration Lines)

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

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

This permit unit is currently under compliant Dormant Emission Unit (DEU) status and no source testing is required until the DEU status is removed. Since unit is subject to District Rule 4702, all source testing requirements are discussed under Rule 4702 discussion.

Unit -23 (New Pasteurization Operation - Fluid Bed Dryers)

District Rule 4309 requires NO_X and CO emission testing at within 60 days of initial start-up and at least once every 24 months. Source testing for Rule 4309 satisfies any source testing requirements for Rule 2201. No additional source testing is required.

2. Monitoring

Units -1, -2, -10, -11, -13, and -22 (Mill Rooms and Dehydration Lines):

No monitoring is required to demonstrate compliance with Rule 2201.

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.

Unit -23 (New Pasteurization Operation - Fluid Bed Dryers)

District Rule 4309 requires the owner of any dryer fired on natural gas with a total rated heat input of 5.0 MMBtu/hr or greater to either install and maintain continuous emissions monitoring system for NO_X and oxygen, or install and maintain APCO-approved alternate monitoring system.

Olam proposes to use pre-approved alternate monitoring scheme VI.A (pursuant to District Policy SSP 3005), which requires monitoring of NO_X, CO, and O_2 exhaust concentrations to be conducted at least once per month (in which a source test is not performed) using a portable emission monitor that meets District specifications prescribed in Compliance's Portable Emission Analyzer Policy for Industry, COM 1150B. Monitoring for Rule 4309, which is addressed under Rule 4309 discussion, also satisfies the monitoring requirements for Rule 2201. No additional monitoring is required.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following conditions are listed on the ATCs:

Unit -1 (Mill Room #1)

- Permittee shall maintain daily and annual records of the amount of material processed in the vegetable milling room. [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 -2 (Mill Rooms #2 & 3)

- Permittee shall maintain daily and annual records of the total weight of material processed in Mill Room #2 & 3. [District Rule 2201]

- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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

- 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]

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

- Permittee shall maintain annual records, updated monthly, of the natural gas usage. [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 -22 (Vegetable Dehydration Line E):

- Permittee shall maintain annual records of the amount of fuel used in the vegetable dehydration lines. [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 4309]

Unit -23 (New Pasteurization Operation - Fluid Bed Dryers)

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

- Permittee shall maintain annual records of the total amount of fuel used in the dryers. [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 4309]

Units -10, -11, -13, -16, -22, and -23 (SLC Recordkeeping):

In addition the following conditions will be listed on ATCs C-7748-10-15, -11-15, -13-13, -16-12, -22-3, and -23-0 in order to ensure compliance with the SLC requirement:

- Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11,-13, -16, -22, and -23 on a rolling 12-month basis. These records shall be updated monthly. [District Rule 2201]

- Monthly combined NOx emissions from units -10, -11, -13, -16, -22, and -23 shall be calculated as follows: Monthly combined NOx emissions = (Fuel usage by units -10, -11, -13, and -22 in MMBtu/month x 0.06 lb-NOx/MMBtu) + (Fuel usage by unit -16 in MMBtu/month x 0.0184 lb-NOx/MMBtu) + (Fuel usage by unit -23 in MMBtu/month x 0.0492 lb-NOx/MMBtu). [District Rule 2201]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

5. Control Equipment Operation and Maintenance

Pursuant to Sections 5.6.2 and 5.6.3 of the rule, an ATC will include conditions to ensure that the new or modified source is built according to the specifications and plans included in the application, or which are necessary to assure construction and operation in the manner assumed in the application review. Therefore, the following conditions will be listed on ATCs to ensure that the control equipment operate at optimum control efficiency:

Modified Units (ATCs -1-7, -2-10, -10-15, -11-15, -13-13, -16-12 & -22-3)

Since this project will not result in any changes to the existing control equipment serving these permit units, all permit conditions related to control equipment from current permits will be retained and place on new ATCs to ensure continued compliance.

Unit -23 (New Pasteurization Operation - Fluid Bed Dryers)

The following conditions will be listed on ATC -23-0 to ensure the control equipment shared with existing permit units is maintained and operated to ensure optimum control efficiency:

- Each baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
- Each baghouse's cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
- Material removed from each baghouse 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 each 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. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
- The Donaldson baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 10 inches water column. [District Rule 2201]
- The Saunco baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 9 inches water column. [District Rule 2201]
- Differential operating pressure of each baghouse shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201]
- Records of all maintenance of each baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201]
- Each baghouse shall achieve a PM10 control efficiency of at least 99%, on an individual baghouse basis. [District Rule 2201]

F. Ambient Air Quality Analysis (AAQA)

Section 4.14 of District Rule 2201 requires that an 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 District's Technical Services Division conducted the required analysis. Refer to **Appendix F** of this document for the AAQA summary sheet.

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

The proposed location is in a non-attainment area for the state's PM_{10} as well as federal and state $PM_{2.5}$ thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM_{10} and $PM_{2.5}$.

G. Compliance Certification

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

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to install a pasteurization operation.

Since the project will be used in conjunction with existing equipment 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. A significant permit modification is defined as a "permit amendment that does not qualify as a minor permit modification or administrative amendment."

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.

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

The following conditions will be listed on all ATCs to ensure compliance with these requirements:

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

- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4]

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. However, no subparts of 40 CFR Part 60 apply to the vegetable processing operation.

However, only unit C-7748-16 is subject to the requirements of this rule as discussed below:

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

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

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 and 40 CFR 60 Subpart JJJJ]

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

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

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to the vegetable processing operation.

However, only unit C-7748-16 is subject to the requirements of this rule as discussed below:

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

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

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 IC engine associated with permit unit -16 was installed after June 12, 2006, the requirements of this subpart are not applicable to the engine in this project.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity).

Per District Policy SSP 1005, the visible emissions from processes served by a baghouse or fabric filter shall not equal or exceed 5% opacity for a period or periods aggregating more than three (3) minutes in any one (1) hour.

As long as the Cyclone Separators (as served by dust collectors) are properly maintained and operated, compliance with visible emissions limits is expected under normal operating conditions. Additionally, because the proposed burners are fired solely on natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. Finally, based on past inspections of the facility continued compliance is expected. Therefore, the following conditions will be listed on the ATCs to ensure continued compliance:

Units -1, -2, -10, -11, -13 and -23-0 (units with baghouses)

- Visible emissions from each baghouse shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201 and 4101]

Additionally, the following condition (#22) listed on the facility wide permit C-7748-0-1 will ensure continued compliance with these requirements:

- {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)]

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected. The following condition (#41) listed on the facility wide permit C-7748-0-1 will ensure continued compliance with these requirements:

- {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.

According to the Technical Services Memo for this project (**Appendix F**), 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 resulting prioritization score, acute hazard index, chronic hazard index, and cancer risk for this project is shown below.

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
23-0	0.00	0.00	0.00	5.56E-11	No	Yes
Project Totals	0.00	0.00	0.00	5.56E-11		
Facility Totals	>1	0.00	0.01	7.21E-07		

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 20 in a million). As outlined by the HRA Summary in **Appendix F** of this report, the emissions increase for this project was determined to be less than significant.

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Unit # 23-0

- 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 -1 (Cyclone Separators associated with Mill Room #1 served by the Saunco Model 128FLB-144 Baghouse Dust Collector shared with Permit Units -2 and -23)

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

PM_{10} emission rate = 7.80 lb/day. Assuming 100% of PM is PM_{10}
Exhaust Gas Flow = 22,000 cfm

PM Conc. (gr/scf) = [(7.80 lb/day) ∗ (7,000 gr/lb)] ÷ [(22,000 ft^3/min) ∗ (60 min/hr) ∗ (24 hr/day)]
PM Conc. = 0.0017 gr/scf

Because the emission concentrations from the Saunco Model 128FLB-144 Baghouse Dust Collector are less than 0.1 grain/dscf, compliance with District Rule 4201 requirements is expected and the following condition will be listed on the applicable permit as a mechanism to ensure compliance:

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

Unit -2 (Cyclone Separators associated with Mill Room #2 served by the Saunco Model SJB12-144-2880 Baghouse Dust Collector)

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

PM_{10} emission rate = 11.70 lb/day. Assuming 100% of PM is PM_{10}
Exhaust Gas Flow = 22,000 scfm

PM Conc. (gr/scf) = [(11.70 lb/day) ∗ (7,000 gr/lb)] ÷ [(22,000 ft^3/min) ∗ (60 min/hr) ∗ (24 hr/day)]
PM Conc. = 0.0026 gr/scf

Because the emission concentrations from the Saunco Model SJB12-144-2880 Baghouse Dust Collector are less than 0.1 grain/dscf, compliance with District Rule 4201 requirements is expected and the following condition will be listed on the applicable permit as a mechanism to ensure compliance:

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

Cyclone Separators Associated with the Pasteurization Operation and the Tote Off Station Served by the Donaldson Model 225FS Baghouse Dust Collector of Permit Unit -1 (shared with Permit Units -2, -10, -11, -13, -23 for the four cyclone separators following the Dehydration Dryers) and the Saunco Model 128FLB-144 Baghouse Dust Collector of Permit Unit -1 (shared with Permit Units -2 and -23 for the cyclone at the Tote Off Station)

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

PM_{10} emission rate = 0.19 lb/day. Assuming 100% of PM is PM_{10}
Exhaust Gas Flow = 35,000 scfm

PM Conc. (gr/scf) = [(0.19 lb/day) ∗ (7,000 gr/lb)] ÷ [(35,000 ft^3/min) ∗ (60 min/hr) ∗ (24 hr/day)]
PM Conc. = 0.000026 gr/scf

Because the maximum emission concentrations from the Donaldson Model 225FS Baghouse Dust Collector and the Saunco Model 128FLB-144 Baghouse Dust Collector are less than 0.1 grain/dscf, compliance with District Rule 4201 requirements is expected and the following condition will be listed on the applicable permit as a mechanism to ensure compliance:

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

Unit -23 (Pasteurization Operation with Fluid Bed Dryers 1 and 2)

F-Factor for Natural Gas:	8,578 dscf/MMBtu at 60ºF
PM10 Emissions Factor:	0.0076 lb/MMBtu
Percentage of PM as PM_{10} in Exhaust:	100%
Exhaust Oxygen (O_2) Concentration:	7% (approximately - based on 40-50% excess air)
Excess Air Correction to F-Factor	$\frac{20.9}{(20.9 - 7)} = 1.50$

Thus, grain loading (GL) is calculated as follows:

$$GL = \frac{0.0076 \text{ lb PM}}{\text{MMBtu}} \times \frac{7{,}000 \text{ gr PM}}{\text{lb PM}} \times \frac{\text{MMBtu}}{8{,}578 \text{ ft}^3 \times 1.50}$$

$$GL = 0.0041 \frac{\text{gr}}{\text{ft}^3}$$

Because the emission concentrations from the Natural Gas-Fired Burners are less than 0.1 grain/dscf, compliance with District Rule 4201 requirements is expected and the following condition will be listed on Permit Unit -23 as a mechanism to ensure compliance:

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

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. Additionally, IC engines produce power mechanically, not by indirect heat transfer. Therefore, the IC engine

(permit unit -16) does not meet the definition of fuel burning equipment. Therefore, Rule 4301 does not apply to any units associated with this project

Rule 4309 Dryers, Dehydrators, and Ovens

Only units C-7748-10, -11, -13, -22, and -23 are subject to the requirements of this rule. Since dryers and dehydrators have different rule requirements, first new unit -23 (with two 6 MMBtu/hr each dryers) will be discussed and then the modified dehydrators (units -10, -11, -13, and -22) will be discussed.

Unit -23 (New Pasteurization Operation with Two Fluid Bed Dryers #1 and 2)

The purpose of this rule is to limit emissions of NOx and 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 MMBtu/hr or greater. Since the proposed dryers each have a heat input rating greater than 5.0 MMBtu/hr, they are subject to the requirements of this rule.

Section 5.0 states that all ppmv limits specified in this section are referenced at dry stack gas conditions and adjusted using an oxygen correction factor of 19% by volume.

Section 5.2 requires that except for dehydrators, NO_X and CO emissions shall not exceed the limits specified in the table below on and after the full compliance schedules specified in Sections 7.1 and 7.3, as appropriate. All ppmv emission limits specified in this section are referenced at dry stack gas conditions and 19% by volume stack gas oxygen. Emission concentrations shall be corrected to 19% oxygen in accordance with Section 5.0.

Process Description	NO_X Limit (in ppmv)		CO Limit (in ppmv)	
	Gaseous Fuel Fired	Liquid Fuel Fired	Gaseous Fuel Fired	Liquid Fuel Fired
Asphalt/Concrete Plants	4.3	12.0	42	64
Milk, Cheese, and Dairy Processing < 20 MMBtu/hr	3.5	3.5	42	42
Milk, Cheese, and Dairy Processing ≥ 20 MMBtu/hr	5.3	5.3	42	42
Other processes not described above	4.3	4.3	42	42

The two units being added in this project are fluid bed dryers at a vegetable dehydration facility with a maximum heat input of 6 MMBtu/hr each. Therefore, the following limits apply:

- The NO_X limit is 4.3 ppmvd @ 19% O_2 (0.0492 lb/MMBtu), and
- The CO limit is 42 ppmvd @ 19% O_2 (0.2924 lb/MMBtu).

The applicant has proposed these emission limits based on manufacturer information; therefore, compliance with this section is expected and the following condition will be listed on ATC -23-0 to ensure compliance:

- Emissions from the natural gas-fired units shall not exceed any of the following limits: 4.3 ppmvd NOx @ 19% O2 or 0.0492 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 42 ppmvd CO @ 19% O2 or 0.2924 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rules 2201 and 4309]

The manufacturer information is provided in **Appendix G**.

Section 5.3 provides for a limited exemption from the emission limitations of Section 5.2 during well-defined and permitted start-up and shutdown operations. Except as provided in Section 5.3.3, start-up and shutdown periods may not exceed one hour in duration for units not equipped with a NO_X exhaust control system, or 2 hours for units with a NO_X exhaust control system. Because no special startup or shutdown considerations are being proposed, this section is not relevant to the application.

Section 5.4.1 states that except for dehydrators, the operator of any unit subject to the applicable emission limits in Sections 4.3.2, or 5.2 shall monitor emissions using one of the techniques specified in Sections 5.4.1.1 or 5.4.1.2.

Section 5.4.1.1 describes the first technique as the installation and maintenance of an APCO-approved CEMS for NO_X, and oxygen that meets the following requirements:

- 40 CFR Part 51, and
- 40 CFR Parts 60.7 and 60.13 (except subsection h), and
- 40 CFR Part 60 Appendix B (Performance Specifications), and
- 40 CFR Part 60 Appendix F (Quality Assurance Procedures), and
- The applicable provisions of District Rule 1080 (Stack Monitoring).
- The APCO shall only approve CEMS that meets the requirements of Sections 5.4.1.1.1 through 5.4.1.1.5 of this rule.

Section 5.4.1.2 describes the second technique as the installation and maintenance of an alternate emissions monitoring method that meets the requirements of Sections 5.4.1.2.1 through 5.4.1.2.3 of this rule.

Section 5.4.1.2.1 states that the APCO shall not approve an alternative monitoring system unless it is documented that continued operation within ranges of specified emissions-related performance indicators or operational characteristics provides a reasonable assurance of compliance with applicable emission limits.

Section 5.4.1.2.2 states that the approved alternate emission monitoring system shall monitor operational characteristics necessary to assure compliance with the emission limit. Operational characteristics shall be one or more of the following:

- Periodic NOx exhaust emission concentrations,

- Periodic exhaust oxygen concentration,
- Flow rate of reducing agent added to exhaust,
- Catalyst inlet and exhaust temperature,
- Catalyst inlet and exhaust oxygen concentration,
- Periodic flue gas recirculation rate,
- Other surrogate operating parameter(s) that demonstrate compliance with the emission limit.

Section 5.4.1.2.3 states that the operator shall source test over the proposed range of surrogate operating parameter(s) to demonstrate compliance with the applicable emission limits.

In order to satisfy the requirements of District Rule 4309, Olam proposes to use pre-approved alternate monitoring scheme VI.A (pursuant to District Policy SSP 3005), which requires monitoring of NO_X, CO, and O_2 exhaust concentrations to be conducted at least once per month (in which a source test is not performed) using a portable emission monitor that meets District specifications prescribed in Compliance's Portable Emission Analyzer Policy for Industry, COM 1150B. The following conditions will be incorporated into the permit in order to ensure compliance with the requirements of the proposed alternate monitoring scheme:

- {3741} The permittee shall monitor and record the stack concentration of NO_X, CO, and O_2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]

- {3742} If either the NO_X or CO concentrations corrected to 19% O_2 (or no correction if measured above 19% O_2), 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 Rule 4309]

- {3743} 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 4309]

- {Edited 3744} For each dryer, the permittee shall maintain records of: (1) the date and time of NOx, CO, and O_2 measurements, (2) the O_2 concentration in percent and the measured NOx and CO concentrations corrected to 19% O_2 (or no correction if measured above 19% O_2), (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 Rule 4309]

Section 5.5.1 states that all emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the PTO.

Section 5.5.2 states that except for as provided in Section 5.5.3, 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.

The following condition will be added to the permit to assure compliance with Sections 5.5.1 and 5.5.2:

- {3713} All emission 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 4309. [District Rule 4309]

Section 5.5.5 states that for emissions monitoring pursuant to Section 5.4.1.2.2.1, 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. The conditions for the proposed alternate monitoring scheme assure compliance with this section.

Section 5.5.6 states that for emissions source testing performed pursuant to Section 6.3.1 to determine compliance with an applicable emission limit of this rule, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply. If two of the three runs individually demonstrate emissions above the applicable limit, the test cannot be used to demonstrate compliance for the unit, even if the averaged emissions of all three test runs is less than the applicable limit. The following condition will be added to the permit to assure compliance with this section.

- {3715} 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 4309]

Section 6.1 details the record keeping requirements the operator must satisfy to document compliance with the rule. The following conditions will be included on the ATC to ensure compliance:

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

Section 6.2 specifies the acceptable test methods for monitoring or compliance determinations. The following conditions will be included on the ATC to ensure compliance:

- {3718} NO_X emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309]

- {3719} CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309]

- {3720} Stack gas oxygen (O_2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309]

Section 6.3.2 states that each unit subject to the requirements in Sections 4.3, or 5.2 shall be initially source tested to determine compliance with the applicable emission limits not later than the applicable full compliance schedule specified in Section 7.0. Thereafter, each unit subject to Section 5.2 emission limits shall be source tested at least once every 24 months. Units subject to Section 5.2 and operating less than 50 days per calendar year shall follow the source test frequency prescribed in Section 6.3.3. -The following condition will be added to the permit to assure compliance with this section.

- {3714} Source testing to measure NO_X and CO emissions from this unit when fired on natural gas shall be conducted within 60 days of initial start-up and at least once every 24 months thereafter. [District Rules 2201 and 4309]

Section 6.3.5 states that the APCO shall be notified according to the provisions of Rule 1081 (Source Sampling). The following conditions will be added to the permit to assure compliance with this section.

- {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]

- {3721} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

Section 6.3.6 states that emissions source testing shall be conducted with the unit operating either at conditions representative of normal operations or conditions specified in the PTO. The requirements of this section will be satisfied by the condition listed in Sections 5.5.1 and 5.5.2 of this rule evaluation.

Section 6.3.7 states that all test results for NO_X and CO shall be reported in ppmv, corrected to dry stack conditions and adjusted using the oxygen correction factor. The following condition will be added to the permit to assure compliance with this section:

- {3722} All test results for NO_X and CO shall be reported in ppmv @ 19% O_2 (or no correction if measured above 19% O_2), corrected to dry stack conditions. [District Rule 4309]

Section 6.3.8 states that for the purpose of determining compliance with an applicable emission limit, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply.

Section 6.3.9 states that if two of the three runs specified by Section 6.3.8 individually demonstrate emissions above the applicable limit, the test cannot be used to demonstrate compliance for the unit, even if the averaged emissions of all three runs is less than the applicable limit.

The requirements of Sections 6.3.8 and 6.3.9 will be satisfied by the condition listed in Section 5.5.6 of this rule evaluation.

Section 7.1 describes the general compliance schedule, while Section 7.2 defines the compliance schedule benchmarks of "Authority to Construct" and "Full Compliance". Because the proposed units are new dryers to be installed after the compliance schedule benchmarks, this section does not apply.

Units -10, -11, -13, and -22 (Existing Dehydrators)

Since each of the existing dehydrators being modified in this project has a heat input rating greater than 5.0 MMBtu, each 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 quality natural gas. [District Rules 2201, 4309, and 4801]

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.

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

Rule 4702 – Internal Combustion Engines – Phase 2

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

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

This rule applies to any internal combustion engine rated at 25 brake horsepower or greater.

Section 5.2.1 requires that the operator of a spark-ignited internal combustion engine rated at >50 bhp that is used exclusively in non-AO shall not operate it in such a manner that results in emissions exceeding the limits in Table 1 for the appropriate engine type until such time that the engine has demonstrated compliance with Table 2 emission limits pursuant to the compliance deadlines in Section 7.5. In lieu of complying with Table 1 emission limits, the operator of a spark-ignited engine shall comply with the applicable emission limits pursuant to Section 8.0.

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 IC engine involved with permit unit -16 is a 4 stroke lean-burn IC engine. Therefore, the IC engine will need to meet the above emissions limits. The current permit lists the following emission limits:

- 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]

Therefore, compliance with Section 5.2.1 of District Rule 4702 is expected.

Section 5.3 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 5.7 states that on and after the compliance schedule specified in Section 7.5, operators of non-AO spark-ignited engines and non-AO compression-ignited engines shall comply with one of the following requirements:

> 5.7.1 Operate the engine exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases

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

- The unit shall only be fired on PUC quality natural gas. [District Rules 2201 and 4702]

Section 5.8.1 requires that the operator of a non-AO spark-ignited engine subject to the requirements of Section 5.2 or any engine subject to the requirements of Section 8.0 shall comply with the following requirements:

> For each engine with a rated brake horsepower of 1,000 bhp or greater and which is allowed by Permit-to-Operate or Permit-Exempt Equipment Registration condition to operate more than 2,000 hours per calendar year, or with an external emission control device, either install, operate, and maintain continuous monitoring equipment for NOx, 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:

5.8.1.1 Periodic NOx and CO emission concentrations,
5.8.1.2 Engine exhaust oxygen concentration,
5.8.1.3 Air-to-fuel ratio,
5.8.1.4 Flow rate of reducing agents added to engine exhaust,
5.8.1.5 Catalyst inlet and exhaust temperature,
5.8.1.6 Catalyst inlet and exhaust oxygen concentration, or
5.8.1.7 Other operational characteristics.

The applicant has previously chosen to meet this section of the Rule by proposing a pre-approved alternate emissions monitoring plan that specifies that the permittee perform periodic NOx, CO, and O_2 emissions concentrations as specified in District Policy SSP-1810, dated 4/29/04. Therefore, the following condition on the current permit will be placed on the new ATC to ensure continued 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 5.8.6 requires that for each engine 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 on the current permit will be placed on the new ATC to ensure continued 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 5.8.7 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 previously 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 5.8.8 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 previously approved by the APCO, therefore compliance with this section is assured.

Section 5.8.9 requires that for each engine, use a portable NOx analyzer to take NOx emission readings to verify compliance with the emission requirements of Section 5.2 or Section 8.0 during each calendar quarter in which a source test is not performed and the engine is operated.

5.8.9.1 If an engine is operated less than 120 calendar days per calendar year, take one NOx emission reading during the calendar year in which a source test is not performed and the engine is operated.

5.8.9.2 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 or Permit-Exempt Equipment Registration.

5.8.9.3 The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO.

5.8.9.4 All NOx emissions readings shall be reported to the APCO in a manner approved by the APCO.

5.8.9.5 NOx 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 from the current permit will be placed on the new ATC to ensure continued 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. Section 6.1.2 states that 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 6.1.3 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 previously submitted all the required information for Section 6.1 in the original application for the IC engine involved with this project.

Section 6.2.1 requires that Tte operator of an engine subject to the requirements of Section 5.2 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.

Therefore, the following condition on the current permit will be placed on the new ATC to ensure continued 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 5.9 shall be maintained for at least five years, shall be readily available, and made available to the APCO upon request. Therefore, the following condition on the current permit will be placed on the new ATC to ensure continued 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 Rules 1070 and 4702]

Section 6.3 requires that the operator of an engine subject to the requirements of Section 5.2 or the requirements of Section 8.0 shall comply with the following requirements:

Section 6.3.2 states demonstrate compliance with applicable limits, ppmv or percent reduction, in accordance with the test methods in Section 6.4, as specified in Sections 6.3.2.1 thru 6.3.2.3.

Section 6.3.3 states Conduct emissions source testing with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt Equipment Registration. For emissions source testing performed pursuant to Section 6.3.2 for the purpose of determining compliance with an applicable standard or numerical limitation, the arithmetic average of three (3) 30-consecutiveminute 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, NOx, and CO concentrations shall be reported in ppmv, corrected to 15 percent oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported.

Section 6.3.4 states 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 from the current permit will be placed on the new ATC to ensure continued compliance with these sections:

- 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 5.2 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 from the current permit will be placed on the new ATC to ensure continued compliance with this section:

- 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 states that the operator of an engine that is subject to the requirements of Section 5.2 or the requirements of Section 8.0 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 5.8. The actions to be identified in the I&M plan shall include, but are not limited to, the information specified below. If there is no change to the previously approved I&M plan, the operator shall submit a letter to the District indicating that previously approved plan is still valid.

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 previously proposed that the alternate monitoring program will ensure compliance with Sections 6.5.2 and 6.5.3 of the Rule. Therefore, the following condition from the current permit will be placed on the new ATC to ensure continued compliance with this section:

- 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]

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 NOx, 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 NOx, CO, VOC, or oxygen concentrations.

The applicant has previously proposed that the alternate monitoring program will ensure compliance with these two sections of the Rule. Therefore, the following condition from the current permit will be placed on the new ATC to ensure continued 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 previously proposed that the engine will be operated and maintained per the manufacturer's specifications. Therefore, the following condition from the current permit will be placed on the new ATC to ensure continued 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 NOx analyzer to take NO_x emission readings pursuant to Section 5.8.9. The applicant has previously proposed that the alternate monitoring program will ensure compliance with this Section of the Rule. Therefore, the following condition from the current permit will be placed on the new ATC to ensure continued 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 5.8.1 and 5.8.2. Data collected through the I&M plan shall have retrieval capabilities as approved by the APCO. The applicant has previously proposed that the alternate monitoring program will ensure compliance with this Section of the Rule. Therefore, the following condition from the current permit will be placed on the new ATC to ensure continued 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 previously indicated that they will modify their I&M plan per this section of the Rule. Therefore, the following condition from the current permit will be placed on the new ATC to ensure continued 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 7.5 specifies compliance schedule for non-AO spark-ignited engines. Since all dates specified in Table 5 have already passed, the engine must be in compliance with all applicable requirements. As demonstrated above, the engine involved in this project and located at this facility is currently in compliance with the requirements of District Rule 4702.

Section 8.0 allows Alternate Emission Control Plan (AECP) to comply with the NOx emission requirements of Section 5.2 for a group of engines by meeting the requirements in this Rule. The engine under permit unit -16 is currently in compliance with NOx emission requirement of Section 5.2; therefore, this Section of the Rule is not applicable.

Therefore continued compliance with Rule 4702 is expected.

Rule 4801 Sulfur Compounds

Units -10, -11, -13, -16, -22, and -23 are subject to this rule.

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

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

$$\text{Volume of } SO_2 = \frac{nRT}{P}$$

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

$$\frac{0.00285\ \text{lb } SO_x}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8{,}578\ \text{dscf}} \times \frac{1\ \text{lbmol } SO_X}{64\ \text{lb } SO_X} \times \frac{10.73\ \text{psi}\cdot\text{ft}^3}{\text{lbmol}\cdot{}^\circ\text{R}} \times \frac{520\ ^\circ\text{R}}{14.7\ \text{psi}} \times \frac{10^6\ \text{parts}}{\text{million}} = \frac{1.97\ \text{parts}}{\text{million}}$$

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

Since 1.97 ppmv is < 2,000 ppmv, all units are expected to comply with Rule 4801. Therefore, the following conditions will be listed on the ATCs to ensure compliance:

Units -10, -11, -13, and -22 (Natural Gas-Fired Dehydrators):

- The unit shall only be fired on PUC quality natural gas. [District Rules 2201, 4309 and 4801]

Unit -16 (Natural Gas-Fired Cogen IC Engine):

- The unit shall only be fired on PUC quality natural gas. [District Rules 2201, 4702, and 4801]

Unit -23 (New Pasteurization Operation with Natural Gas-Fired Dryers):

- The dryers shall only be fired on PUC quality natural gas. [District Rules 2201 and 4801]

California Health & Safety Code 42301.6 (School Notice)

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

California Environmental Quality Act (CEQA)

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

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

Greenhouse Gas (GHG) Significance Determination

It is determined that no other agency has 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 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 or former use. Furthermore, the District determined that the activity will not have a significant effect on the environment. Therefore, the District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15301 (Existing Facilities), and finds that the project is exempt per the common sense exemption that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

Indemnification Agreement/Letter of Credit Determination

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

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

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATCs C-7748-1-7, -2-10, -10-15, -11-15, -13-13, -16-12, -22-3, and -23-0 subject to the permit conditions on the attached draft ATCs in **Appendix A**.

X. Billing Information

Annual Permit Fees			
Permit Unit	**Fee Schedule**	**Fee Description**	**Annual Fee**
C-7748-1-7	3020-01-E	393.5 hp electric motors	$495
C-7748-2-10	3020-01-G	1,446 hp electric motors	$980
C-7748-10-15	3020-02-H	54 MMBtu/hr dehydrator	$1,238
C-7748-11-15	3020-02-H	54 MMBtu/hr dehydrator	$1,238
C-7748-13-13	3020-02-H	69 MMBtu/hr dehydrator	$1,238
C-7748-16-12	3020-08A-C	1,350 kW electrical generator	$1,840
C-7748-22-3	3020-02-H	42.15 MMBtu/hr dehydrator	$1,238
C-7748-23-0	3020-02-H	Total of 12 MMBtu/hr dryers	$1,238

Note: Permit -1 added 32 hp from one cyclone airlock and blower (361.5 + 32 = 393.5 hp) – no change in fee schedule required
Permit -2 added 64 hp from two cyclone airlocks and blowers (1,382 hp + 64 hp = 1,446 hp) – no change in fee schedule required

Appendixes

A*:* Draft ATCs
B: Current PTOs
C: BACT Analysis
D: Quarterly Net Emissions Change (QNEC)
E: Compliance Certification
F: Technical Services Memo
G: Manufacturer Information for the Fluid Bed Dryers with Natural Gas-Fired Burners (Permit Unit -23)
H: SSPE1 Calculations
I: Historic Fuel Usage Records and Emission Source Test Summaries

APPENDIX A
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-1-7 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: OLAM SPICES
MAILING ADDRESS: 205 E RIVER PARK CIR, STE 310
FRESNO, CA 93720

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA 93622

EQUIPMENT DESCRIPTION:
MODIFICATION OF VEGETABLE MILLING OPERATION (MILL ROOM #1) CONSISTING OF A SWECO SEPARATORS, HAMMER MILL, POWDER MILL, ROLLER MILL, ROTO SEIVE, DUMP STATIONS, VIBRATING TABLE, GREAT WESTERN ROTATING SCREEN, AIR TABLE, AND TWO POWDER CONSOLIDATION UNITS (BAGHOUSE UNITS) ALL SERVED BY A 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE DUST COLLECTOR (SHARED WITH UNIT -2) AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -2, -10, -11) AND A SCANMASTER SATAKE COLOR SORTER: ADD A NEW CYCLONE SEPARATOR AND CORRECT EQUIPMENT DESCRIPTION TO INCLUDE EXISTING CYCLONE ALL SERVED BY 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE (SHARED WITH UNIT -2) AND INCLUDE EMISSIONS FROM UNIT -23 TO SAUNCO MODEL 128FLB-144 BAGHOUSE (SHARED WITH UNIT -2), AND INCLUDE EMISSIONS FROM UNIT -23 TO 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE (SHARED WITH UNITS -2, -10, & -11)

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 each baghouse shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

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

5. Each baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Each baghouse's 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 each baghouse 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. Each 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 Saunco baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 9 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The Donaldson baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 10 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Differential operating pressure of each baghouse shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Each baghouse shall achieve a PM10 control efficiency of at least 99%, on an individual baghouse basis. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions from the vegetable milling room shall not exceed 0.052 lb-PM10/ton of material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The daily material processed shall not exceed 150 tons/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The annual material processed shall not exceed 23,255 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable milling room. [District Rule 2201] Federally Enforceable Through Title V Permit
18. 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
19. 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-7748-2-10 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: OLAM SPICES
MAILING ADDRESS: 205 E RIVER PARK CIR, STE 310
FRESNO, CA 93720

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA 93622

EQUIPMENT DESCRIPTION:
MODIFICATION OF VEGETABLE MILLING OPERATION (MILL ROOM #2 & 3) CONSISTING OF MTMA SEPARATORS, MVSB SEPARATORS, SWECO SEPARATORS, UNIFLOW SEPARATORS, PRECISION SIZER SEPARATORS, GREAT WESTERN ROTATING SCREEN SEPARATORS, HAMMER MILLS, CAGE MILLS, DESTONERS, DRAG CHAIN CONVEYORS, VIBRATING TABLES, BUCKET ELEVATORS, BELT CONVEYORS, SCAN MASTER SATAKE COLOR SORTERS, CYCLONE SEPARATORS, SCREW CONVEYORS, ALL SERVED BY A 22,000 CFM SAUNCO MODEL SJB12-144-2880 BAGHOUSE AND 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE (SHARED WITH UNIT -1); TWO PRESSURE FANS, VIBRATORY DRUM FILLING STATIONS, TOTE/SUPERSACK FILLING STATIONS, CABLEVEY TRANSPORT LINES, AIRLOCKS, AND FANS, ALL SERVED BY SAUNCO MODEL SJB12-144-2880 BAGHOUSE; AND POWDER RESCREENER, POWDER/GRANULATED GREAT WESTERN ROTATING SCREEN SEPARATORS, BAUERMEISTER POWDER MILLS, FITZ MILLS, ROLLER MILLS, DRUM DUMPER, P1 BIN, P2/P3 BIN, P4 BIN, HOLDING/SURGE BINS, COOL DOWN BINS, BATCH BLENDERS, PACKOUT INFEED RESCREENERS, INFEED CONVEYORS, SCREW CONVEYORS, SURGE HOPPERS, AUGER PACKER, CYCLONE SEPARATORS, AIRLOCKS, AND FANS, ALL SERVED BY A 11,689 CFM AIRLANCO MODEL 144AVS12 BAGHOUSE AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -10, -11): INCLUDE EMISSIONS FROM UNITS -13 AND -23 TO 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE (SHARED WITH UNITS -1, -10, & -11), ADD TWO NEW CYCLONE SEPARATORS SERVED BY SAUNCO MODEL SJB12-144-2880 BAGHOUSE, INCLUDE EMISSIONS FROM (-23) UNIT TO SAUNCO MODEL 128FLB-144 BAGHOUSE (SHARED WITH UNIT -1), RENAME THE DRUM DUMPER TO DUMP STATION

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

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

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

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 each baghouse shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
7. Each Saunco baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 9 inches water column. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
8. The Airlanco baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 10 inches water column. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
9. Each baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Each baghouse's cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Material removed from each baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Replacement bags for each baghouse 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
13. Each baghouse shall achieve a PM10 control efficiency of at least 99%, on an individual baghouse basis. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions from the vegetable milling room shall not exceed 0.052 lb-PM10 per ton of material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Emissions from the powder consolidation system shall not exceed 0.0024 lb-PM10 per ton of powder processed. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Emissions from the packing system shall not exceed 0.052 lb-PM10 per ton of material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The daily throughput (weight of material processed) of Mill Room #2 & 3 overall shall not exceed 225 tons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The annual throughput (weight of material processed) of Mill Room #2 & 3 overall shall not exceed 36,000 tons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Permittee shall maintain daily and annual records of the total weight of material processed in Mill Room #2 & 3. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Differential operating pressure of each baghouse shall be monitored and recorded on each day that the specific baghouse operates. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
21. Records of all maintenance of each baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

22. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

23. Visible emissions from the baghouses serving the milling room and packing system shall be evaluated using EPA Method 22 for a period of at least 6 minutes at least once during each day that the milling room and packing system are operated. Records of visible emissions evaluations shall be maintained. [40 CFR Part 64] Federally Enforceable Through Title V Permit

24. If visible emissions from the baghouses serving the milling room and packing system are observed, the permittee shall investigate the cause of visible emissions and take corrective action to minimize emissions and prevent recurrence of emissions as expeditiously as practicable. [40 CFR Part 64] Federally Enforceable Through Title V Permit

25. During each day of operation, the permittee shall record the pressure drops of the baghouses serving the milling room and packing system, and compare the readings to the acceptable ranges. Upon detecting any excursion from the acceptable pressure drop ranges, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR Part 64] Federally Enforceable Through Title V Permit

26. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit

27. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

28. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-10-15 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: OLAM SPICES
MAILING ADDRESS: 205 E RIVER PARK CIR, STE 310
FRESNO, CA 93720

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 GASFIRED BURNERS SERVED BY TWO CYCLONES AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -2, & -11): ADD PERMIT UNIT -23 INTO THE EXISTING SLC (SHARED BY UNITS -10, -11, -13, -16 AND -22); INCREASE THE SLC FOR SOX, PM10, CO, AND VOC; ADD A NEW CYCLONE SEPARATOR (SHARED WITH UNIT -23) SERVED BY DONALDSON MODEL 225FS BAGHOUSE (SHARED WITH UNITS -1, -2, -11, -13, & -23); AND ADD A NEW IN FEED HOPPER AND TWO DRAG-CHAIN CONVEYORS (SHARED WITH UNITS -11, -13, & -23)

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. Authority to Construct (ATC) permits C-7748-10-15, -11-15, -13-13, -16-12, -22-3, and -23-0 shall be implemented concurrently. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Visible emissions from each baghouse shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services
C-7748-10-15 : Apr 19 2021 1:50PM -- AHMADS : Joint Inspection NOT Required

6. 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]
7. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The baghouse's cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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
11. 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
12. The Donaldson baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 10 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Differential operating pressure of the baghouse shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The baghouse shall achieve a PM10 control efficiency of at least 99%, on an individual baghouse basis. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The unit shall only be fired on PUC quality natural gas. [District Rules 2201, 4309 and 4801] Federally Enforceable Through Title V Permit
16. 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
17. The combined annual emissions from units -10, -11, -13, -16, -22, and -23, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 2,096 lb-SOx/year, 9,598 lb-PM10/year, 113,023 lb-CO/year, or 9,736 lb-VOC/year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
18. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day of dry material exiting the dryer. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year of dry material exiting the dryer. [District Rule 2201] Federally Enforceable Through Title V Permit
20. PM10 emissions from the handling of dehydrated material not exceed 0.0005 lb-PM10/ton material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
21. 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, 20.68 ppmvd CO @ 19% O2 or 0.144 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rules 2201 and 4309] 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
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

CONDITIONS CONTINUE ON NEXT PAGE

25. 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

26. 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

27. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11,-13, -16, -22, and -23 on a rolling 12-month basis. These records shall be updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Monthly combined NOx emissions from units -10, -11, -13, -16, -22, and -23 shall be calculated as follows: Monthly combined NOx emissions = (Fuel usage by units -10, -11, -13, and -22 in MMBtu/month x 0.06 lb-NOx/MMBtu) + (Fuel usage by unit -16 in MMBtu/month x 0.0184 lb-NOx/MMBtu) + (Fuel usage by unit -23 in MMBtu/month x 0.0492 lb-NOx/MMBtu). [District Rule 2201] Federally Enforceable Through Title V Permit

29. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-11-15 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: OLAM SPICES
MAILING ADDRESS: 205 E RIVER PARK CIR, STE 310
FRESNO, CA 93720

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 GASFIRED BURNERS SERVED BY TWO CYCLONES AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -2, & -10): ADD PERMIT UNIT -23 INTO THE EXISTING SLC (SHARED BY UNITS -10, -11, -13, -16 AND -22); INCREASE THE SLC FOR SOX, PM10, CO, AND VOC; ADD A NEW CYCLONE SEPARATOR (SHARED WITH UNIT -23) SERVED BY DONALDSON MODEL 225FS BAGHOUSE (SHARED WITH UNITS -1, -2, -10, -13, & -23); AND ADD A NEW INFEED HOPPER AND TWO DRAG-CHAIN CONVEYORS (SHARED WITH UNITS -10, -13, & -23)

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. Authority to Construct (ATC) permits C-7748-10-15, -11-15, -13-13, -16-12, -22-3, and -23-0 shall be implemented concurrently. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Visible emissions from each baghouse shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services
C-7748-11-15 : Apr 19 2021 1:52PM -- AHMADS : Joint Inspection NOT Required

6. 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]
7. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The baghouse's cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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
11. 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
12. The Donaldson baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 10 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Differential operating pressure of the baghouse shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The baghouse shall achieve a PM10 control efficiency of at least 99%, on an individual baghouse basis. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The unit shall only be fired on PUC quality natural gas. [District Rules 2201, 4309 and 4801] Federally Enforceable Through Title V Permit
16. 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
17. The combined annual emissions from units -10, -11, -13, -16, -22, and -23, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 2,096 lb-SOx/year, 9,598 lb-PM10/year, 113,023 lb-CO/year, or 9,736 lb-VOC/year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
18. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day of dry material exiting the dryer. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year of dry material exiting the dryer. [District Rule 2201] Federally Enforceable Through Title V Permit
20. PM10 emissions from the handling of dehydrated material not exceed 0.0005 lb-PM10/ton material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
21. 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, 20.68 ppmvd CO @ 19% O2 or 0.144 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rules 2201 and 4309] 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
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

CONDITIONS CONTINUE ON NEXT PAGE

25. 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

26. 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

27. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11,-13, -16, -22, and -23 on a rolling 12-month basis. These records shall be updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Monthly combined NOx emissions from units -10, -11, -13, -16, -22, and -23 shall be calculated as follows: Monthly combined NOx emissions = (Fuel usage by units -10, -11, -13, and -22 in MMBtu/month x 0.06 lb-NOx/MMBtu) + (Fuel usage by unit -16 in MMBtu/month x 0.0184 lb-NOx/MMBtu) + (Fuel usage by unit -23 in MMBtu/month x 0.0492 lb-NOx/MMBtu). [District Rule 2201] Federally Enforceable Through Title V Permit

29. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

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

LEGAL OWNER OR OPERATOR: OLAM SPICES
MAILING ADDRESS: 205 E RIVER PARK CIR, STE 310
FRESNO, CA 93720

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: ADD PERMIT UNIT -23 INTO THE EXISTING SLC (SHARED BY UNITS -10, -11, -13, -16 AND -22); INCREASE THE SLC FOR SOX, PM10, CO, AND VOC; ADD A NEW CYCLONE SEPARATOR (SHARED WITH UNIT -23) SERVED BY DONALDSON MODEL 225FS BAGHOUSE (SHARED WITH UNITS -1, -2, -10, -11, & -23); AND ADD A NEW INFEED HOPPER AND TWO DRAG-CHAIN CONVEYORS (SHARED WITH UNITS -10, -11, & -23)

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. Authority to Construct (ATC) permits C-7748-10-15, -11-15, -13-13, -16-12, -22-3, and -23-0 shall be implemented concurrently. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Visible emissions from each baghouse shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services
C-7748-13-13 : Apr 19 2021 1:53PM -- AHMADS : Joint Inspection NOT Required

6. 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]
7. The unit shall only be fired on PUC quality natural gas. [District Rules 2201, 4309 and 4801] Federally Enforceable Through Title V Permit
8. 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
9. The combined annual emissions from units -10, -11, -13, -16, -22, and -23, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 2,096 lb-SOx/year, 9,598 lb-PM10/year, 113,023 lb-CO/year, or 9,736 lb-VOC/year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
10. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day of dry material exiting the dryer. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year of dry material exiting the dryer. [District Rule 2201] Federally Enforceable Through Title V Permit
12. 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
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, 20.68 ppmvd CO @ 19% O2 or 0.144 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rules 2201 and 4309] Federally Enforceable Through Title V Permit
14. 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
15. 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
16. 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
17. 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
18. 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
19. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11,-13, -16, -22, and -23 on a rolling 12-month basis. These records shall be updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Monthly combined NOx emissions from units -10, -11, -13, -16, -22, and -23 shall be calculated as follows: Monthly combined NOx emissions = (Fuel usage by units -10, -11, -13, and -22 in MMBtu/month x 0.06 lb-NOx/MMBtu) + (Fuel usage by unit -16 in MMBtu/month x 0.0184 lb-NOx/MMBtu) + (Fuel usage by unit -23 in MMBtu/month x 0.0492 lb-NOx/MMBtu). [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 and 4309] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-16-12 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: OLAM SPICES
MAILING ADDRESS: 205 E RIVER PARK CIR, STE 310
FRESNO, CA 93720

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: ADD PERMIT UNIT -23 INTO THE EXISTING SLC (SHARED BY UNITS -10, -11, -13, -16, AND -22) AND INCREASE THE SLC FOR SOX, PM10, CO, AND VOC

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. Authority to Construct (ATC) permits C-7748-10-15, -11-15, -13-13, -16-12, -22-3, and -23-0 shall be implemented concurrently. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The PG&E utility meter shall not exceed a reading of 434,756 MCF. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
6. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services
C-7748-16-12 : Apr 19 2021 1:54PM -- AHMADS : Joint Inspection NOT Required

8. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

9. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

11. The unit shall only be fired on PUC quality natural gas. [District Rules 2201, 4702, and 4801] Federally Enforceable Through Title V Permit

12. 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

13. The natural gas usage in the IC engine shall not exceed 68.72 MMscf/year. [District Rule 2201] Federally Enforceable Through Title V Permit

14. 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

15. The ammonia (NH3) emissions shall not exceed 10 ppmvd @ 15% O2. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

16. The combined annual emissions from units -10, -11, -13, -16, -22, and -23, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 2,096 lb-SOx/year, 9,598 lb-PM10/year, 113,023 lb-CO/year, or 9,736 lb-VOC/year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

17. 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

18. 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

19. 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

20. 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

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. 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

23. 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

24. 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

25. 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

26. 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

27. 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

28. 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

29. Permittee shall maintain annual records, updated monthly, of the natural gas usage. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11,-13, -16, -22, and -23 on a rolling 12-month basis. These records shall be updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit

31. Monthly combined NOx emissions from units -10, -11, -13, -16, -22, and -23 shall be calculated as follows: Monthly combined NOx emissions = (Fuel usage by units -10, -11, -13, and -22 in MMBtu/month x 0.06 lb-NOx/MMBtu) + (Fuel usage by unit -16 in MMBtu/month x 0.0184 lb-NOx/MMBtu) + (Fuel usage by unit -23 in MMBtu/month x 0.0492 lb-NOx/MMBtu). [District Rule 2201] Federally Enforceable Through Title V Permit

32. 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

CONDITIONS CONTINUE ON NEXT PAGE

33. 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-7748-22-3 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: OLAM SPICES
MAILING ADDRESS: 205 E RIVER PARK CIR, STE 310
FRESNO, CA 93720

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA 93622

EQUIPMENT DESCRIPTION:
MODIFICATION OF 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: ADD PERMIT UNIT -23 INTO THE EXISTING SLC (SHARED BY UNITS -10, -11, -13, -16, AND -22) AND INCREASE THE SLC FOR SOX, PM10, CO, AND VOC

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. Authority to Construct (ATC) permits C-7748-10-15, -11-15, -13-13, -16-12, -22-3, and -23-0 shall be implemented concurrently. [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 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]
6. The unit shall only be fired on PUC quality natural gas. [District Rules 2201, 4309 and 4801] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services
C-7748-22-3 : Apr 19 2021 2:09PM -- AHMADS : Joint Inspection NOT Required

7. 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

8. The combined annual emissions from units -10, -11, -13, -16, -22, and -23, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 2,096 lb-SOx/year, 9,598 lb-PM10/year, 113,023 lb-CO/year, or 9,736 lb-VOC/year. [District Rules 2201 and 4102] 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, 20.68 ppmvd CO @ 19% O2 or 0.144 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rules 2201 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

13. 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

14. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11,-13, -16, -22, and -23 on a rolling 12-month basis. These records shall be updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Monthly combined NOx emissions from units -10, -11, -13, -16, -22, and -23 shall be calculated as follows: Monthly combined NOx emissions = (Fuel usage by units -10, -11, -13, and -22 in MMBtu/month x 0.06 lb-NOx/MMBtu) + (Fuel usage by unit -16 in MMBtu/month x 0.0184 lb-NOx/MMBtu) + (Fuel usage by unit -23 in MMBtu/month x 0.0492 lb-NOx/MMBtu). [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

AUTHORITY TO CONSTRUCT

PERMIT NO: C-7748-23-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: OLAM SPICES
MAILING ADDRESS: 205 E RIVER PARK CIR, STE 310
FRESNO, CA 93720

LOCATION: 47641 W NEES AVE
FIREBAUGH, CA 93622

EQUIPMENT DESCRIPTION:
PASTEURIZATION OPERATION CONSISTING OF FOUR CYCLONE SEPARATORS (ONE SERVING DUMP STATION AND THREE SHARED WITH UNITS -10, -11, -13) ALL SERVED BY A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE (SHARED WITH UNITS -1, -2, -10, -11, & -13). AN INFEED HOPPER, TWO DRAG-CHAIN CONVEYORS, TWO WEIGH CONVEYORS, TWO SURFACE PASTEURIZATION SPRAY CHAMBERS, TWO FLUIDIZED BED DRYERS (12 MMBTU/HR TOTAL) EACH WITH A SHAKER CONVEYOR, A 6 MMBTU/HR NATURAL GAS-FIRED BURNER, AND A COOLING FAN, AND A TOTE OFF STATION INCLUDING A CYCLONE SEPARATOR; ALL SERVED BY A 22,000 CFM SAUNCO MODEL SJB12-144-2880 BAGHOUSE AND 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE (BOTH BAGHOUSES ARE SHARED WITH UNITS -1 AND -2)

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. Authority to Construct (ATC) permits C-7748-10-15, -11-15, -13-13, -16-12, -22-3, and -23-0 shall be implemented concurrently. [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. Visible emissions from each baghouse shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

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

6. Each baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Each baghouse's cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Material removed from each baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. 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
10. Each 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
11. The Donaldson baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 10 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The Saunco baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 9 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Differential operating pressure of each baghouse shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records of all maintenance of each baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Each baghouse shall achieve a PM10 control efficiency of at least 99%, on an individual baghouse basis. [District Rule 2201] Federally Enforceable Through Title V Permit
16. PM10 emissions from the cyclone separators shall not exceed 0.0005 lb-PM10/ton material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The dryers shall only be fired on PUC quality natural gas. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
18. Emissions from the natural gas-fired units shall not exceed any of the following limits: 4.3 ppmvd NOx @ 19% O2 or 0.0492 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 42 ppmvd CO @ 19% O2 or 0.2924 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rules 2201 and 4309] Federally Enforceable Through Title V Permit
19. The combined annual emissions from units -10, -11, -13, -16, -22, and -23, during any one rolling 12 month period, shall not exceed any of the following limits: 36,163 lb-NOx/year, 2,096 lb-SOx/year, 9,598 lb-PM10/year, 113,023 lb-CO/year, or 9,736 lb-VOC/year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
20. The daily material processed by the cyclone separators shall not exceed 375 ton/day of total material. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The annual material processed by the cyclone separators shall not exceed 59,255 tons/year of total material. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Permittee shall maintain daily and annual records of the amount of material processed in the cyclone separators. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Permittee shall maintain annual records of the total amount of fuel used in the dryers. [District Rule 2201] Federally Enforceable Through Title V Permit
24. The permittee shall monitor and record each dryer 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 monitoring has been performed within the last month. [District Rule 4309] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

25. If either the NOx or CO concentrations from the dryer stack corrected to 19% O2 (or no correction if measured above 19% 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 Rule 4309] Federally Enforceable Through Title V Permit

26. All alternate monitoring parameter emission readings for each dryer 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 4309] Federally Enforceable Through Title V Permit

27. For each dryer, 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 19% O2 (or no correction if measured above 19% 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 Rule 4309] Federally Enforceable Through Title V Permit

28. All emission measurements for each dryer 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 4309. [District Rule 4309] Federally Enforceable Through Title V Permit

29. Source testing to measure NOx and CO emissions from each dryer when fired on natural gas shall be conducted within 60 days of initial start-up and at least once every 24 months thereafter. [District Rules 2201 and 4309] Federally Enforceable Through Title V Permit

30. 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 4309] Federally Enforceable Through Title V Permit

31. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309] Federally Enforceable Through Title V Permit

32. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit

33. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit

34. 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

35. 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

36. All test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309] Federally Enforceable Through Title V Permit

37. Permittee shall maintain records of the combined annual NOx, SOx, PM10, CO, and VOC emissions of units -10, -11,-13, -16, -22, and -23 on a rolling 12-month basis. These records shall be updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

38. Monthly combined NOx emissions from units -10, -11, -13, -16, -22, and -23 shall be calculated as follows: Monthly combined NOx emissions = (Fuel usage by units -10, -11, -13, and -22 in MMBtu/month x 0.06 lb-NOx/MMBtu) + (Fuel usage by unit -16 in MMBtu/month x 0.0184 lb-NOx/MMBtu) + (Fuel usage by unit -23 in MMBtu/month x 0.0492 lb-NOx/MMBtu). [District Rule 2201] Federally Enforceable Through Title V Permit

39. 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 B
Current PTOs

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-7748-1-6 **EXPIRATION DATE:** 07/31/2020

EQUIPMENT DESCRIPTION:
VEGETABLE MILLING OPERATION (MILL ROOM #1) CONSISTING OF A SWECO SEPARATORS, HAMMER MILL, POWDER MILL, ROLLER MILL, ROTO SEIVE, DUMP STATIONS, VIBRATING TABLE, GREAT WESTERN ROTATING SCREEN, AIR TABLE, AND TWO POWDER CONSOLIDATION UNITS (BAGHOUSE UNITS) ALL SERVED BY A 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE DUST COLLECTOR (SHARED WITH UNIT -2) AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -2, -10, -11) AND A SCANMASTER SATAKE COLOR SORTER

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 each baghouse serving the mill room 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. Each baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Each baghouse's 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 each baghouse 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. Each 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 Saunco baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 9 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The Donaldson baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 10 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Differential operating pressure of each baghouse shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Each baghouse shall achieve a PM10 control efficiency of at least 99%, on an individual baghouse basis. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Emissions from the vegetable milling room shall not exceed 0.052 lb-PM10/ton of material processed. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The daily material processed shall not exceed 150 tons/day. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The annual material processed shall not exceed 23,255 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Permittee shall maintain daily and annual records of the amount of material processed in the vegetable milling room. [District Rule 2201] Federally Enforceable Through Title V Permit
16. 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
17. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-7748-2-9 **EXPIRATION DATE:** 07/31/2020

EQUIPMENT DESCRIPTION:
VEGETABLE MILLING OPERATION (MILL ROOM #2 & 3) CONSISTING OF MTMA SEPARATORS, MVSB SEPARATORS, SWECO SEPARATORS, UNIFLOW SEPARATORS, PRECISION SIZER SEPARATORS, GREAT WESTERN ROTATING SCREEN SEPARATORS, HAMMER MILLS, CAGE MILLS, DESTONERS, DRAG CHAIN CONVEYORS, VIBRATING TABLES, BUCKET ELEVATORS, BELT CONVEYORS, SCAN MASTER SATAKE COLOR SORTERS, CYCLONE SEPARATORS, SCREW CONVEYORS, ALL SERVED BY A 22,000 CFM SAUNCO MODEL SJB12-144-2880 BAGHOUSE AND 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE (SHARED WITH UNIT -1); TWO PRESSURE FANS, VIBRATORY DRUM FILLING STATIONS, TOTE/SUPERSACK FILLING STATIONS, CABLEVEY TRANSPORT LINES, AIRLOCKS, AND FANS, ALL SERVED BY SAUNCO MODEL SJB12-144-2880 BAGHOUSE; AND POWDER RESCREENER, POWDER/GRANULATED GREAT WESTERN ROTATING SCREEN SEPARATORS, BAUERMEISTER POWDER MILLS, FITZ MILLS, ROLLER MILLS, DRUM DUMPER, P1 BIN, P2/P3 BIN, P4 BIN, HOLDING/SURGE BINS, COOL DOWN BINS, BATCH BLENDERS, PACKOUT INFEED RESCREENERS, INFEED CONVEYORS, SCREW CONVEYORS, SURGE HOPPERS, AUGER PACKER, CYCLONE SEPARATORS, AIRLOCKS, AND FANS, ALL SERVED BY A 11,689 CFM AIRLANCO MODEL 144AVS12 BAGHOUSE AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -10, -11)

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 each baghouse shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
4. 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 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
5. Each Saunco baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 9 inches water column. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
6. The Airlanco baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 10 inches water column. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
7. Each baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Each baghouse's cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Material removed from each baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Replacement bags for each baghouse 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
11. Each baghouse shall achieve a PM10 control efficiency of at least 99%, on an individual baghouse basis. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Emissions from the vegetable milling room shall not exceed 0.052 lb-PM10 per ton of material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Emissions from the powder consolidation system shall not exceed 0.0024 lb-PM10 per ton of powder processed. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions from the packing system shall not exceed 0.052 lb-PM10 per ton of material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The daily throughput (weight of material processed) of Mill Room #2 & 3 overall shall not exceed 225 tons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The annual throughput (weight of material processed) of Mill Room #2 & 3 overall shall not exceed 36,000 tons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Permittee shall maintain daily and annual records of the total weight of material processed in Mill Room #2 & 3. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Differential operating pressure of each baghouse shall be monitored and recorded on each day that the specific baghouse operates. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
19. Records of all maintenance of each baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
20. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
21. Visible emissions from the baghouses serving the milling room and packing system shall be evaluated using EPA Method 22 for a period of at least 6 minutes at least once during each day that the milling room and packing system are operated. Records of visible emissions evaluations shall be maintained. [40 CFR Part 64] Federally Enforceable Through Title V Permit
22. If visible emissions from the baghouses serving the milling room and packing system are observed, the permittee shall investigate the cause of visible emissions and take corrective action to minimize emissions and prevent recurrence of emissions as expeditiously as practicable. [40 CFR Part 64] Federally Enforceable Through Title V Permit
23. During each day of operation, the permittee shall record the pressure drops of the baghouses serving the milling room and packing system, and compare the readings to the acceptable ranges. Upon detecting any excursion from the acceptable pressure drop ranges, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR Part 64] Federally Enforceable Through Title V Permit
24. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
25. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
26. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-7748-10-14 **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 AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -2, -11)

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 baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The baghouse's 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 baghouse 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 Donaldson baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 10 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Differential operating pressure of the baghouse shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The baghouse shall achieve a PM10 control efficiency of at least 99%, on an individual baghouse basis. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201, 4309 and 4801] Federally Enforceable Through Title V Permit
12. 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
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, 94,698 lb-CO/year, and 8,580 lb-VOC/year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day of dry material exiting the dryer. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year of dry material exiting the dryer. [District Rule 2201] Federally Enforceable Through Title V Permit
16. PM10 emissions from the handling of dehydrated material not exceed 0.0005 lb-PM10/ton material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
17. 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, 20.68 ppmvd CO @ 19% O2 or 0.144 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rules 2201, 4301 and 4309] Federally Enforceable Through Title V Permit
18. 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
19. 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
20. 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
21. 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
22. 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
23. 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
24. 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
25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-7748-11-14 **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 AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -2, -10)

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 baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The baghouse's 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 baghouse 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 Donaldson baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 10 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Differential operating pressure of the baghouse shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The baghouse shall achieve a PM10 control efficiency of at least 99%, on an individual baghouse basis. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201, 4309 and 4801] Federally Enforceable Through Title V Permit
12. 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
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, 94,698 lb-CO/year, and 8,580 lb-VOC/year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. The combined daily material processed by units -10, -11, and -13 shall not exceed 375 ton/day of dry material exiting the dryer. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined annual material processed by units -10, -11, and -13 shall not exceed 59,255 tons/year of dry material exiting the dryer. [District Rule 2201] Federally Enforceable Through Title V Permit
16. PM10 emissions from the handling of dehydrated material not exceed 0.0005 lb-PM10/ton material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
17. 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, 20.68 ppmvd CO @ 19% O2 or 0.144 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rules 2201, 4301 and 4309] Federally Enforceable Through Title V Permit
18. 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
19. 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
20. 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
21. 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
22. 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
23. 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
24. 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
25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-7748-13-12 **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, -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, 94,698 lb-CO/year, and 8,580 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 of dry material exiting the dryer. [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 of dry material exiting the dryer. [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, 20.68 ppmvd CO @ 19% O2 or 0.144 lb-CO/MMBtu, or 0.011 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 lines. [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, -16, and -22. These records shall be updated monthly. [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-7748-16-11 **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. The PG&E utility meter shall not exceed a reading of 434,756 MCF. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] 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 natural gas usage in the IC engine shall not exceed 68.72 MMscf/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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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, 94,698 lb-CO/year, and 8,580 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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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, updated monthly, of the natural gas usage. [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

PERMIT UNIT: C-7748-22-2 **EXPIRATION DATE:** 07/31/2020

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

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, -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, 94,698 lb-CO/year, and 8,580 lb-VOC/year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
6. 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, 20.68 ppmvd CO @ 19% O2 or 0.144 lb-CO/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rules 2201, 4301 and 4309] Federally Enforceable Through Title V Permit
7. 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
8. 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
9. 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
10. 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
11. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. 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 C
BACT Analysis

Two Natural Gas-Fired 6 MMBtu/hr Burners (Permit Unit -23) Used in the Proposed Fluid Bed Dryers

NO_X Top-Down BACT Analysis

Step 1 - Identify All Control Technologies

Since there are no existing BACT Guidelines available in the District's BACT Clearinghouse that would be applicable to the pasteurization operation dryers, a new project specific BACT analysis will be performed.

District Rule 4309, Section 5.2, Table 1 specifies the following NOx emission limit for gaseous fuel fired 'other processes':

- Natural Gas Fuel with NOx 4.3 ppmvd @ 19% O_2 (equivalent to 0.0492 lb/MMBtu)

No other District rules would require lower NOx emissions than stated above. Similarly, other sources of BACT information (e.g., Bay Area Air Quality Management District BACT/TBACT Guidelines, EPA BACT/LAER Clearinghouse) were reviewed and no additional control technologies were identified for a natural gas-fired burner used in a fluid bed dryer (or similar equipment).

Therefore, the above stated emission limit will be listed as Achieved-in-Practice BACT.

Step 2 - Eliminate Technologically Infeasible Options

Since the only control option listed in Step 1 is also Achieved-in-Practice, no need to eliminate any control options.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

Since the only remaining control option technology is also Achieved-in-Practice, no ranking is needed.

Step 4 - Cost Effectiveness Analysis

A cost-effective analysis is not needed for the only control option which is also Achieved-in-Practice.

Step 5 - Select BACT

BACT for the burners used in a fluid bed dryer (Permit Unit -23) is determined to be the use of natural gas with an emission limit of 4.3 ppmvd @ 19% O_2 (equivalent to 0.0492 lb/MMBtu). The facility has proposed to install fluid bed dryers equipped with natural gas burners with an emission limit of 4.3 ppmvd @ 19% O_2 (equivalent to 0.0492 lb/MMBtu). Therefore, BACT for NO_X emissions is satisfied.

APPENDIX D
Quarterly Net Emissions Change (QNEC)

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 is calculated as follows:

Emissions Units Not Covered by an SLC

QNEC = PE2 - PE1, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
PE2 = PE2 for each emissions unit, lb/qtr.
PE1 = PE1 for for each emissions unit, lb/qtr.

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

$PE2_{quarterly}$ = $PE2_{annual}$ ÷ 4 quarters/year
$PE1_{quarterly}$ = $PE1_{annual}$ ÷ 4 quarters/year

Emissions Units Covered by an SLC

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

$QNEC_{SLC}$ = Quarterly Net Emissions Change for units covered by the SLC, lb/qtr.
$PE2_{SLC}$ = PE2 for all units covered by the SLC, lb/qtr.
$PE1_{SLC}$ = PE1 for all units covered by the SLC, lb/qtr.

Using the values in Sections VII.C.2 and VII.C.1 in the evaluation above, quarterly $PE2_{SLC}$ and quarterly $PE1_{SLC}$ is calculated as follows:

$PE2_{SLC,quarterly}$ = $PE2_{SLC,annual}$ ÷ 4 quarters/year
$PE1_{SLC,quarterly}$ = $PE1_{SLC,annual}$ ÷ 4 quarters/year

Pollutant	Annual PE1 (lb/yr)	Quarterly PE1 (lb/qtr)
NOx	36,163	9,040.75
SOx	1,796	449
PM_{10}	8,770	2,192.5
CO	94,698	23,674.5
VOC	8,580	2,145

Pollutant	Annual PE2 (lb/yr)	Quarterly PE2 (lb/qtr)
NOx	36,163	9,040.75
SOx	2,090	522.5
PM_{10}	9,590	2,397.5
CO	113,020	28,255
VOC	9,730	2,432.5

Quarterly NEC [QNEC]				
Permit	**Pollutant**	**PE2 (lb/qtr)**	**PE1 (lb/qtr)**	**QNEC (lb/qtr)**
C-7748-1	PM_{10}	302	302	0
C-7748-2	PM_{10}	958	958	0
SLC Shared with Permit Units C-7748-10, -11, -13, -16, -22, -23	NO_X	9,040.75	9,040.75	0
	SO_X	522.5	449	73.5
	PM_{10}	2,397.5	2,192.5	205
	CO	28,255	23,674.5	4,580.5
	VOC	2,432.5	2,145	287.5

Since QNEC values are entered in PAS database as whole numbers, QNEC will be distributed in four quarters as summarized in the table below:

Permit Unit		**Quarterly NEC [QNEC]**			
		1st Quarter	**2nd Quarter**	**3rd Quarter**	**4th Quarter**
C-7748-1	PM_{10}	0	0	0	0
C-7748-2	PM_{10}	0	0	0	0
*SLC Shared with Permit Units C-7748-10, -11, -13, -16, -22, -23	NOx	0	0	0	0
	SOx	73	73	74	74
	PM_{10}	205	205	205	205
	CO	4,580	4,580	4,581	4,581
	VOC	287	287	288	288

*Note: All annual SLC emissions from units -10, -11, -13, -16, -22 and -23 under SLC will be entered in PAS under the first ATC -10-15 being issued under this project in order to avoid double counting SLC emissions.

APPENDIX E
Compliance Certification

April 9, 2021

San Joaquin Valley Air Pollution Control District
Attn: Mr. Arnaud Marjollet
Engineering Division
1900 East Gettysburg Avenue
Fresno, CA 93726-0244

Subject: Compliance Statement for Olam West Coast Inc. dba Olam Spices (C-7748)

Dear Mr. Marjollet,

In accordance with Rule 2201 Section 4.15.2 requires that an owner or operator proposing a federal major modification certify that all major stations sources owned or operated by such person (or by any entity controlling, controlled by, or under common control with such person) in California are either in compliance or on a schedule for compliance with all applicable emissions limitations and standards. Olam West Coast Inc. dba Olam Spices (Firebaugh) is pleased to provide this compliance statement regarding its proposed project to install and operate a pasteurization process – Project # 1203750.

All major stationary sources in California owned or operated by Olam West Coast Inc. or by any entity controlling, controlled by, or under common control with Olam West Coast Inc., and which are subject to emissions limitations, are in compliance or on a schedule for compliance with all applicable emission limitations and standards. These sources include the following facility:

Olam West Coast Inc. dba Olam Spices (C-7748)
47641 W. Nees Ave. Firebaugh, CA

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

Sincerely,

Chris Bennett

Plant Manager

APPENDIX F
Technical Services Memo

San Joaquin Valley Air Pollution Control District
Risk Management Review and Ambient Air Quality Analysis

To:	Kamaljit Sran – Permit Services
From:	Will Worthley – Technical Services
Date:	March 22, 2021
Facility Name:	OLAM SPICES
Location:	47641 W NEES AVE, FIREBAUGH
Application #(s):	C-7748-1-7, -2-10, -10-15, -11-15, -13-13, -16-12, -22-3, -23-0
Project #:	C-1203750

1. Summary

1.1 RMR

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
23-0	0.00	0.00	0.00	5.56E-11	No	Yes
Project Totals	0.00	0.00	0.00	5.56E-11		
Facility Totals	>1	0.00	0.01	7.21E-07		

1.2 AAQA

Pollutant	Air Quality Standard (State/Federal)				
	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass		Pass		
NO_x	Pass				Pass
SO_x	Pass	Pass		Pass	Pass
PM10				Pass[3]	Pass[3]
PM2.5				Pass[4]	Pass[4]

Notes:
1. Results were taken from the attached AAQA Report.
2. The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2) unless otherwise noted below.
3. Modeled PM10 concentrations were below the District SIL for non-fugitive sources of 5 $\mu g/m^3$ for the 24-hour average concentration and 1 $\mu g/m^3$ for the annual concentration.
4. Modeled PM2.5 concentrations were below the District SIL for non-fugitive sources of 1.2 $\mu g/m^3$ for the 24-hour average concentration and 0.2 $\mu g/m^3$ for the annual concentration.

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Unit # 23-0

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

2. Project Description

Technical Services received a request on February 24, 2021 to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for the following:

- Unit -1-7: MODIFICATION OF VEGETABLE MILLING OPERATION (MILL ROOM #1) CONSISTING OF A SWECO SEPARATORS, HAMMER MILL, POWDER MILL, ROLLER MILL, ROTO SEIVE, DUMP STATIONS, VIBRATING TABLE, GREAT WESTERN ROTATING SCREEN, AIR TABLE, AND TWO POWDER CONSOLIDATION UNITS (BAGHOUSE UNITS) ALL SERVED BY A 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE DUST COLLECTOR (SHARED WITH UNIT -2) AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -2, -10, -11) AND A SCANMASTER SATAKE COLOR SORTER: ADD A NEW CYCLONE SEPARATOR AND CORRECT EQUIPMENT DESCRIPTION TO INCLUDE EXISTING CYCLONE ALL SERVED BY 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE DUST COLLECTOR (SHARED WITH '-2) AND INCLUDE EMISSIONS FROM ('-23) UNIT TO SAUNCO MODEL 128FLB-144 BAGHOUSE DUST COLLECTOR (SHARED WITH UNIT -2), AND INCLUDE EMISSIONS FROM -13 AND -23 UNITS TO 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -2, -10, -11)
- Unit -2-10: MODIFICATION OF VEGETABLE MILLING OPERATION (MILL ROOM #2 & 3) CONSISTING OF MTMA SEPARATORS, MVSB SEPARATORS, SWECO SEPARATORS, UNIFLOW SEPARATORS, PRECISION SIZER SEPARATORS, GREAT WESTERN ROTATING SCREEN SEPARATORS, HAMMER MILLS, CAGE MILLS, DESTONERS, DRAG CHAIN CONVEYORS, VIBRATING TABLES, BUCKET ELEVATORS, BELT CONVEYORS, SCAN MASTER SATAKE COLOR SORTERS, CYCLONE SEPARATORS, SCREW CONVEYORS, ALL SERVED BY A 22,000 CFM SAUNCO MODEL SJB12-144-2880 BAGHOUSE AND 22,000 CFM SAUNCO MODEL 128FLB-144 BAGHOUSE (SHARED WITH UNIT -1); TWO PRESSURE FANS, VIBRATORY DRUM FILLING STATIONS, TOTE/SUPERSACK FILLING STATIONS, CABLEVEY TRANSPORT LINES, AIRLOCKS, AND FANS, ALL SERVED BY SAUNCO MODEL SJB12-144-2880 BAGHOUSE; AND POWDER RESCREENER, POWDER/GRANULATED GREAT WESTERN ROTATING SCREEN SEPARATORS, BAUERMEISTER POWDER MILLS, FITZ MILLS, ROLLER MILLS, DRUM DUMPER, P1 BIN, P2/P3 BIN, P4 BIN, HOLDING/SURGE BINS, COOL DOWN BINS, BATCH BLENDERS, PACKOUT INFEED RESCREENERS, INFEED CONVEYORS, SCREW CONVEYORS, SURGE HOPPERS, AUGER PACKER, CYCLONE SEPARATORS, AIRLOCKS, AND FANS, ALL SERVED BY A 11,689 CFM AIRLANCO MODEL 144AVS12 BAGHOUSE AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -10, -11): INCLUDE EMISSIONS FROM -13 AND -23 UNITS TO 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS -1, -10, -11), ADD TWO NEW CYCLONE SEPARATORS SERVED BY THE SAUNCO MODEL SJB12-144-2880 BAGHOUSE DUST COLLECTOR, INCLUDE EMISSIONS FROM ('-23) UNIT TO SAUNCO MODEL 128FLB-144 BAGHOUSE DUST COLLECTOR (SHARED WITH UNIT -1), RENAME THE DRUM DUMPER TO DUMP STATION
- Unit -10-15: MODIFICATION OF 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE A) WITH MAXON MODEL SERIES A NATURAL GASFIRED BURNERS SERVED BY TWO CYCLONES AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS '-1, '-2, 11): ADD A

NEW CYCLONE SEPARATOR (SHARED WITH EQUIPMENT LISTED UNDER '-23) SERVED BY THE DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH EQUIPMENT LISTED UNDER ' -1, '-2, '-11, '-13, AND '-23) AND A NEW IN FEED HOPPER AND TWO DRAG-CHAIN CONVEYORS (SHARED WITH EQUIPMENT LISTED UNDER '-11, '-13, AND '-23), ADD PERMIT UNIT -23 INTO THE EXISTING SLC SHARED BETWEEN UNITS -10, -11, -13, -16 AND -22 AND INCREASE THE SLC FOR SOX, PM10, CO, AND VOC

- Unit -11-15: MODIFICATION OF 54 MMBTU/HR VEGETABLE DEHYDRATION OPERATION (LINE B) WITH MAXON MODEL SERIES A NATURAL GASFIRED BURNERS SERVED BY TWO CYCLONES AND A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS '-1, '-2, '-10): ADD A NEW CYCLONE SEPARATOR (SHARED WITH EQUIPMENT LISTED UNDER '-23) SERVED BY THE DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH EQUIPMENT LISTED UNDER '-1, '-2, '-10, '-13, AND '-23) AND A NEW INFEED HOPPER AND TWO DRAG-CHAIN CONVEYORS (SHARED WITH EQUIPMENT LISTED UNDER '-10, '-13, AND '-23), ADD PERMIT UNIT -23 INTO THE EXISTING SLC SHARED BETWEEN UNITS -10, -11, -13, -16 AND -22 AND INCREASE THE SLC FOR SOX, PM10, CO, AND VOC
- Unit -13-13: 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: ADD A NEW CYCLONE SEPARATOR (SHARED WITH EQUIPMENT LISTED UNDER '-23) SERVED BY THE DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH EQUIPMENT LISTED UNDER '-1, '-2, '-10, '-11, AND '-23) AND A NEW INFEED HOPPER AND TWO DRAG-CHAIN CONVEYORS (SHARED WITH EQUIPMENT LISTED UNDER '-10, '-11, AND '-23), ADD PERMIT UNIT -23 INTO THE EXISTING SLC SHARED BETWEEN UNITS -10, -11, -13, -16 AND -22 AND INCREASE THE SLC FOR SOX, PM10, CO, AND VOC
- Unit -16-12: MODIFICATION OF 1877 HP DEUTZ MODEL TBG620V16 NATURAL GAS-FIRED IC ENGINE EQUIPPED WITH A MIRATECH SCR SYSTEM, POWERING A 1350 KW GENERATOR: ADD PERMIT UNIT -23 INTO THE EXISTING SLC SHARED BETWEEN UNITS -10, -11, -13, -16 AND -22 AND INCREASE THE SLC FOR SOX, PM10, CO, AND VOC
- Unit -22-3: MODIFICATION OF 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: ADD PERMIT UNIT -23 INTO THE EXISTING SLC SHARED BETWEEN UNITS -10, -11, -13, -16 AND -22 AND INCREASE THE SLC FOR SOX, PM10, CO, AND VOC
- Unit -23-0: PASTEURIZATION OPERATION CONSISTING OF FOUR CYCLONE SEPARATORS (THREE SHARED WITH '-10, '-11, '-13) SERVED BY A 35,000 CFM DONALDSON MODEL 225FS BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS '-1, '-2, '-10, '-11, '-13), A TOTE OFF STATION INCLUDING A CYCLONE SERVED BY THE SAUNCO MODEL 128FLB-144 BAGHOUSE DUST COLLECTOR (SHARED WITH UNITS '-1 AND '-2), INFEED HOPPER AND TWO DRAG-CHAIN CONVEYORS (SHARED WITH UNITS '-10, '-11, '-13), TWO WEIGH CONVEYORS, TWO SURFACE PASTEURIZATION SPRAY CHAMBERS, AND TWO FLUID BED DRYERS EACH WITH

A SHAKER CONVEYOR, A 6 MMBTU/HR NATURAL GAS-FIRED BURNER, AND A COOLING FAN

3. RMR Report

3.1 Analysis

The District performed an analysis pursuant to the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015) to determine the possible cancer and non-cancer health impact to the nearest resident or worksite. This policy requires that an assessment be performed on a unit by unit basis, project basis, and on a facility-wide basis. If a preliminary prioritization analysis demonstrates that:

- A unit's prioritization score is less than the District's significance threshold and;
- The project's prioritization score is less than the District's significance threshold and;
- The facility's total prioritization score is less than the District's significance threshold

Then, generally no further analysis is required.

The District's significant prioritization score threshold is defined as being equal to or greater than1.0. If a preliminary analysis demonstrates that either the unit(s) or the project's or the facility's total prioritization score is greater than the District threshold, a screening or a refined assessment is required

If a refined assessment is greater than one in a million but less than 20 in one million for carcinogenic impacts (Cancer Risk) and less than 1.0 for the Acute and Chronic hazard indices(Non-Carcinogenic) on a unit by unit basis, project basis and on a facility-wide basis the proposed application is considered less than significant. For unit's that exceed a cancer risk of 1 in one million, Toxic Best Available Control Technology (TBACT) must be implemented.

Toxic emissions for this project were calculated using the following methods:

- Toxic emissions for this proposed unit were calculated using 2001 Ventura County's Air Pollution Control District's emission factors for Natural Gas Fired external combustion.

These emissions were input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy, risks from the proposed unit's toxic emissions were prioritized using the procedure in the 2016 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required.

The AERMOD model was used, with the parameters outlined below and meteorological data for 2007-2011 from Mendota (rural dispersion coefficient selected) 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 SHARP Program, which then used 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:

Source Process Rates					
Unit ID	**Process ID**	**Process Material**	**Process Units**	**Hourly Process Rate**	**Annual Process Rate**
23	1	NG Usage	MMscf	0.006	52.6
23	2	NG Usage	MMscf	0.006	52.6

Point Source Parameters						
Unit ID	**Unit Description**	**Release Height (m)**	**Temp. (°K)**	**Exit Velocity (m/sec)**	**Stack Diameter (m)**	**Vertical/ Horizontal/ Capped**
23	NG Dryers	9.45	Ambient	21.88	0.95	Vertical
23	NG Dryers	9.45	Ambient	21.88	0.95	Vertical

4. AAQA Report

The District modeled the impact of the proposed project on the National Ambient Air Quality Standard (NAAQS) and/or California Ambient Air Quality Standard (CAAQS) in accordance with District Policy APR-1925 (Policy for District Rule 2201 AAQA Modeling) and EPA's Guideline for Air Quality Modeling (Appendix W of 40 CFR Part 51). The District uses a progressive three level approach to perform AAQAs. The first level (Level 1) uses a very conservative approach. If this analysis indicates a likely exceedance of an AAQS or Significant Impact Level (SIL), the analysis proceeds to the second level (Level 2) which implements a more refined approach. For the 1-hour NO_2 standard, there is also a third level that can be implemented if the Level 2 analysis indicates a likely exceedance of an AAQS or SIL.

The modeling analyses predicts the maximum air quality impacts using the appropriate emissions for each standard's averaging period. Required model inputs for a refined AAQA include background ambient air quality data, land characteristics, meteorological inputs, a receptor grid, and source parameters including emissions. These inputs are described in the sections that follow.

Ambient air concentrations of criteria pollutants are recorded at monitoring stations throughout the San Joaquin Valley. Monitoring stations may not measure all necessary pollutants, so background data may need to be collected from multiple sources. The following stations were used for this evaluation:

Monitoring Stations				
Pollutant	**Station Name**	**County**	**City**	**Measurement Year**
CO	Tranquillity	Fresno		2018
NOx	Fresno - Garland	Fresno	Fresno	2018
PM10	Fresno - Garland	Fresno	Fresno	2018
PM2.5	Fresno - Garland	Fresno	Fresno	2018
SOx	Fresno - Garland	Fresno	Fresno	2018

Technical Services performed modeling for directly emitted criteria pollutants with the emission rates below:

Emission Rates (lbs/hour)						
Unit ID	**Process**	**NOx**	**SOx**	**CO**	**PM10**	**PM2.5**
23	1	0.30	0.02	1.75	0.05	0.05
23	2	0.30	0.02	1.75	0.05	0.05

Emission Rates (lbs/year)						
Unit ID	**Process**	**NOx**	**SOx**	**CO**	**PM10**	**PM2.5**
23	1	2,586	150	15,369	400	400
23	2	2,586	150	15,369	400	400

The AERMOD model was used to determine if emissions from the project would cause or contribute to an exceedance of any state of federal air quality standard. The parameters outlined below and meteorological data for 2007-2011 from Mendota (rural dispersion coefficient selected) were used for the analysis:

The following parameters were used for the review:

Point Source Parameters						
Unit ID	**Unit Description**	**Release Height (m)**	**Temp. (°K)**	**Exit Velocity (m/sec)**	**Stack Diameter (m)**	**Vertical/ Horizontal/ Capped**
23	NG Dryer	9.45	Ambient	0.86	0.84	Vertical
23	NG Dryer	9.45	Ambient	0.86	0.84	Vertical

5. Conclusion

5.1 RMR

The cumulative acute and chronic indices for this facility, including this project, are below 1.0; and the cumulative cancer risk for this facility, including this project, is less than 20 in a million. In addition, the cancer risk for each unit in this project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

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

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

5.2 AAQA

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

6. Attachments

A. Modeling request from the project engineer

B. Additional information from the applicant/project engineer

C. Prioritization score w/ toxic emissions summary

D. Facility Summary

E. AAQA results

APPENDIX G
Manufacturer Information for the Fluid Bed Dryers with Natural Gas-Fired Burners (Permit Unit -23)

EMISSIONS GUARANTEE

APPROVAL PROVISIONS

4:1 TD, 40-50%XSA, burner protection shroud

NOx	<4.3ppm@19%O2
CO	
Other	

Requirements and Conditions

Honeywell will guarantee, after acceptance by the customer of the combustion products being supplied by Honeywell ("Products"), that the stated burner(s) will achieve the emission performance stated on this form. This guarantee is valid through the Product warranty period agreed to at the time the burner is purchased. This guarantee applies to the Product(s) purchased within 6 months, and tested within 12 months, of the date for the installation described on this form. Failure to test within this time frame constitutes full acceptance of the Products. The content of this guarantee is restricted to the original installation only as referenced on this form. The guarantee is made only at the specific operating conditions stated on this form.

This guarantee is not a general guarantee for all Products, nor across all installations. Any unauthorized alterations to the Products, the control scheme, or relocation of the user equipment shall void this commitment. This emission guarantee requires the use of an air/fuel ratio control scheme as supplied by Honeywell. Additionally, this guarantee is valid only when the startup is performed or supervised by a Honeywell service technician or engineer, and the Products are maintained in accordance with Honeywell specifications. Honeywell will not be responsible for process or environmental influences on emission levels.

The guarantee may only be substantiated by an AETB accredited independent testing agency which has the required equipment capable of measuring emissions in a highly diluted air stream and such subastantiation will be at customer's sole expense. If required by Honeywell, the testing agency will sample emissions at a location in the process that accurately reflects the specific Product's performance, and may be as close as 12 inches from the end of the flame. If independent testing indicates the emissions guarantee is not met, Honeywell reserves the right, at its expense, to contract a second testing agency fro a re-test. Only the following EPA test methods found in 40CFR, Part 60, Appendix A shall be used by the independent testing agency for emission measurements:

NO_x	USEPA Method 7E	PM	USEPA Method 5
CO	USEPA Method 10	CO_2	USEPA Method 3A
SO_2	USEPA Method 6C	VOC	USEPA Method 25A
O_2	USEPA Method 3A	Pb	USEPA Method 12

Remedy for Non-Conformance

If the initial independent testing indicates the emissions guarantee is not met and Honeywell chooses to forego a second testing, or if Honeywell contracts for a second testing and the results of such testing indicated the emissions guarantee is not met, Honeywell will, at its expense, modify the Products as deemed necessary, in Honeywell's opinion, to achieve the guaranteed emissions. After Product modifications are completed, the customer again will, at its expense, contract an independent testing agency to verify emissions. If the emissions guarantee is still not met after completion of the Product modifications, Honeywell will, at its expense, remove the Products from the plant and refund the price paid by customer for the removed Products, as well as reimburse customer for amounts paid to independent testing agencies to conduct the two emissions tests required by this guarantee.

THE REMEDIES STATED ABOVE ARE CUSTOMER'S SOLE REMEDY, AND HONEYWELL'S SOLE LIABILITY, FOR FAILURE TO MEET THE EMISSIONS GUARANTEE. IN NO EVENT WILL HONEYWELL BE LIABLE FOR ANY OTHER COSTS OF DAMAGES, WHETHER INCIDENTAL, DIRECT, CONSEQUENTIAL, SPECIAL, PUNITIVE, STATUTORY, OR INDIRECT, INCLUDING BUT NOT LIMITED TO:
I) REMOVAL OF, OR COST OF, USER'S PRIOR EQUIPMENT, II) ORIGINAL INSTALLATION CHARGES FOR PRODUCT THAT WAS REMOVED, III) COST FOR ANY PURCHASE AND INSTALLATION OF REPLACEMENTS FOR THE PRODUCTS, IV) LOSS OF PRODUCTION, V) REPAIRS TO USER EQUIPMENT THAT MAY HAVE BEEN MODIFIED TO SUIT THE INSTALLATION OR THE REMOVED PRODUCT, OR VI) FINES OR REMEDIATION EXPENSES.

APPENDIX H
SSPE1 Calculations

SSPE1 Calculations:

1) **ATC C-7748-5-4:** VEGETABLE PACKAGING OPERATION
2) **C-7748-6-4:** BLENDING AND PACKAGING OPERATION

Both units share SLC for combined daily and annual throughputs, so combined PE is calculated for both units as follows:

A. Assumptions

- Permit units involve PM_{10} emissions only.
- Maximum combined throughput for units -5 and -6 is 51,000 ton/year (current PTOs).

B. Emission Factors

EF = 0.052 lb-PM_{10}/ton product (current PTOs)

B. Emission Calculations

Annual PE = Throughput (ton/year) x EF (lb-PM_{10}/ton)
= 51,000 (ton/year) x 0.052 (lb-PM_{10}/ton)
= 2,652 lb-PM_{10}/year

3) **C-7748-7-2:** VEGETABLE ROOM

A. Assumptions

- Permit unit involves PM_{10} emissions only.
- Maximum process rate is 5,000 ton/year (current PTO).

B. Emission Factors

EF = 0.052 lb-PM_{10}/ton product (current PTO)

C. Emission Calculations

Annual PE = Process Rate (ton/year) x EF (lb-PM_{10}/ton)
= 5,000 (ton/year) x 0.052 (lb-PM_{10}/ton)
= 260 lb-PM_{10}/year

4) **C-7748-8-2:** AGGLOMERATION OPERATION WITH ONE AGGLOMERATOR ROOM AND ONE AGG SIFTER ROOM

A. Assumptions

- Permit unit involves PM_{10} emissions only.
- Maximum throughput from agglomerator room is 5,000 ton/year (current PTO).

- Maximum throughput from sifter room is 5,000 ton/year (current PTO).

B. Emission Factors

EF = 0.052 lb-PM_{10}/ton product (current PTO)

C. Emission Calculations

Agglomerator Room:

Annual PE = Throughput (ton/year) x EF (lb-PM_{10}/ton)
= 5,000 (ton/year) x 0.052 (lb-PM_{10}/ton)
= 260 lb-PM_{10}/year

Sifter Room:

Annual PE = Throughput (ton/year) x EF (lb-PM_{10}/ton)
= 5,000 (ton/year) x 0.052 (lb-PM_{10}/ton)
= 260 lb-PM_{10}/year

Permit Unit Total PE:

Annual PE = 260 lb-PM_{10}/year + 260 lb-PM_{10}/year
= 520 lb-PM_{10}/year

5) **C-7748-9-5:** BULK PRODUCT UNLOADING OPERATION

A. Assumptions

- Permit unit involves PM_{10} emissions only.
- Maximum throughput is 155,000 ton/year (current PTO).

B. Emission Factors

EF = 0.0005 lb-PM_{10}/ton product (current PTO)

C. Emission Calculations

Annual PE = Throughput (ton/year) x EF (lb-PM_{10}/ton)
= 155,000 (ton/year) x 0.0005 (lb-PM_{10}/ton)
= 78 lb-PM_{10}/year

6) **C-7748-12-1:** VEGETABLE DEHYDRATION OPERATION

A. Assumptions

- Permit unit involves PM_{10} emissions only.

- Maximum throughput is 7,000 ton/year (current PTO).

B. Emission Factors

EF = 0.0005 lb-PM_{10}/ton product (current PTO)

C. Emission Calculations

Annual PE = Throughput (ton/year) x EF (lb-PM_{10}/ton)
= 7,000 (ton/year) x 0.0005 (lb-PM_{10}/ton)
= 4 lb-PM_{10}/year

7) **C-7748-14-11:** 29.4 MMBTU/HR CLEAVER BROOKS MODEL CBI 700 NATURAL GAS-FIRED BOILER

A. Assumptions

- Operational Schedule: 24 hours/day, 365 days per year (worst case)

B. Emission Factors

Emission Factors for Combustion of Natural Gas		
Pollutant	EF (lb/MMBtu)	Source
NOx	0.008	Current PTO
SOx	0.00285	
PM_{10}	0.003	
CO	0.06	
VOC	0.0055	

C. Calculations

The annual potential to emit is calculated as follows and summarized in the table below:

Annual PE (lb/yr) = (EF lb/MMBtu) x Heat Rating (29.4 MMBtu/hr) x 8,760 hr/yr

Annual Project Emissions (PE)				
Pollutant	Emission Factors (lb/MMBtu)	Heat Input (MMBtu/hr)	Operation (hr/year)	Annual PE (lb/yr)
NOx	0.008	29.4	8,760	2,060
SOx	0.00285	29.4	8,760	734
PM_{10}	0.003	29.4	8,760	773
CO	0.06	29.4	8,760	15,453
VOC	0.0055	29.4	8,760	1,416

8) **C-7748-17-1:** KNIFE SHARPENING OPERATION

A. Assumptions

- Permit unit involves PM_{10} emissions only.
- Maximum process rate is 576 knives sharpened per day (current PTO).
- Operating schedule is 365 days per year (worst case)

B. Emission Factors

EF = 0.000091 lb-PM_{10}/knife sharpened (current PTO)

C. Emission Calculations

Annual PE = Process Rate (knives/day) x EF (lb-PM_{10}/knife) x 365 (day/year)
= 576 (knives/day) x 0.000091 (lb-PM_{10}/knife) x 365 (day/year)
= 19 lb-PM_{10}/year

9) **C-7748-18-3:** FLAKE BLENDING OPERATION

A. Assumptions

- Permit unit involves PM_{10} emissions only.
- Maximum process rate is 35 ton/day (current PTO).
- Operating schedule is 365 days per year (worst case)

B. Emission Factors

EF = 0.052 lb-PM_{10}/ton product (current PTO)

C. Emission Calculations

Annual PE = Process Rate (ton/day) x EF (lb-PM_{10}/ton) x 365 day/year
= 35 (ton/day) x 0.052 (lb-PM_{10}/ton) x 365 day/year
= 664 lb-PM_{10}/year

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

Emission Factors (EF)		
Pollutant	g/bhp-hr	Source
NOx	2.66	ATC -20-1
SOx	0.0051	Mass Balance Equation Below
PM_{10}	0.12	ATC -20-1
CO	0.7	
VOC	0.14	

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

Maximum annual hours of operation (non-emergency): 50 hr/year (ATC -20-1)

The annual potential emissions are calculated using the following equation and summarized in the table below:

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

Annual PE					
Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Annual Hours of Operation (hrs/yr)	Conversion (g/lb)	PE Total (lb/yr)
NOx	2.66	131	50	453.6	38
SOx	0.0051	131	50	453.6	0
PM_{10}	0.12	131	50	453.6	2
CO	0.7	131	50	453.6	10
VOC	0.14	131	50	453.6	2

11) **C-7748-21-2:** DRY VEGETABLE PROCESSING OPERATION

A. Assumptions

- Permit unit involves PM_{10} emissions only.
- Maximum throughput is 8,250 ton/year (current PTO).
- EF is stated in units of lb-PM_{10}/ton product/baghouse (current PTO).
- There are a total of 4 baghouses (current PTO).

B. Emission Factors

EF = 0.012 lb-PM_{10}/ton product/baghouse (current PTO)

C. Emission Calculations

Annual PE = Throughput (ton/year) x EF (lb-PM_{10}/ton/baghouse) x 4 baghouses
= 8,250 (ton/year) x 0.012 (lb-PM_{10}/ton/baghouse) x 4 baghouses
= 396 lb-PM_{10}/year

APPENDIX I
Historic Fuel Usage Records and Emission Source Test Summaries

C-7748-10-11 Dehydration	Dryer #1 Gas (54 MMBTu)	Rolling Emission Factor Nox lb/MMBtu	Rolling Emission Factor Sox lb/MMBtu	Rolling Emission Factor CO lb/MMBtu	Rolling Emission Factor PM10 lb/MMBtu	Rolling Emission Factor VOCs lb/MMBtu
		0.06	0.00285	0.144	0.014	0.011
Jan-19	0	5,717	272	13,721	1,334	1,048
Feb-19	0	5,717	272	13,721	1,334	1,048
Mar-19	0	5,717	272	13,721	1,334	1,048
Apr-19	440	5,694	270	13,665	1,329	1,044
May-19	16,017	5,649	268	13,557	1,318	1,036
Jun-19	17,198	5,681	270	13,635	1,326	1,042
Jul-19	16,589	5,710	271	13,705	1,332	1,047
Aug-19	16,015	5,769	274	13,845	1,346	1,058
Sep-19	16,414	5,843	278	14,024	1,363	1,071
Oct-19	13,158	5,808	276	13,939	1,355	1,065
Nov-19	0	5,808	276	13,939	1,355	1,065
Dec-19	1,774	5,856	278	14,055	1,995	1,074
Total	97,606					

C-7748-10-11 Dehydration	Dryer #1 Gas (54 MMBTu)	Rolling Emission Factor Nox lb/MMBtu	Rolling Emission Factor Sox lb/MMBtu	Rolling Emission Factor CO lb/MMBtu	Rolling Emission Factor PM10 lb/MMBtu	Rolling Emission Factor VOCs lb/MMBtu
		0.06	0.00285	0.144	0.014	0.011
Jan-20	0	5,856	278	14,055	1,366	1,074
Feb-20	0	5,856	278	14,055	1,366	1,074
Mar.-20	0	5,856	278	14,055	1,366	1,074
Apr-20	411	5,855	278	14,051	1,366	1,073
May-20	11,721	5,597	266	13,432	1,306	1,026
Jun-20	17,047	5,588	265	13,410	1,304	1,024
Jul-20	16,701	5,594	266	13,427	1,305	1,026
Aug-20	14,218	5,487	261	13,168	1,280	1,006
Sep-20	12,811	5,270	250	12,649	1,230	966
Oct-20	9,130	5,029	239	12,069	1,173	922
Nov-20	0	5,029	239	12,069	1,173	922
Dec-20	0	4,922	234	11,814	1,149	902
Total	82,039					

C-7748-11-11 Dehydration	Dryer #2 Gas (54 MMBTu)	Rolling Emission Factor Nox lb/MMBtu	Rolling Emission Factor Sox lb/MMBtu	Rolling Emission Factor CO lb/MMBtu	Rolling Emission Factor PM10 lb/MMBtu	Rolling Emission Factor VOCs lb/MMBtu
		0.06	0.00285	0.144	0.014	0.011
Jan-19	0	5,717	272	13,721	1,334	1,334
Feb-19	0	5,717	272	13,721	1,334	1,334
Mar-19	0	5,717	272	13,721	1,334	1,334
Apr-19	440	5,694	270	13,665	1,329	1,329
May-19	16,017	5,649	268	13,557	1,318	1,318
Jun-19	17,198	5,681	270	13,635	1,326	1,326
Jul-19	16,589	5,710	271	13,705	1,332	1,332
Aug-19	16,015	5,769	274	13,845	1,346	1,346
Sep-19	16,414	5,843	278	14,024	1,363	1,363
Oct-19	13,158	5,808	276	13,939	1,355	1,355
Nov-19	0	5,808	276	13,939	1,355	1,355
Dec-19	1,774	5,856	278	14,055	1,366	1,366
Total	97,606					

C-7748-11-11 Dehydration	Dryer #2 Gas (54 MMBTu)	Rolling Emission Factor Nox lb/MMBtu	Rolling Emission Factor Sox lb/MMBtu	Rolling Emission Factor CO lb/MMBtu	Rolling Emission Factor PM10 lb/MMBtu	Rolling Emission Factor VOCs lb/MMBtu
		0.06	0.00285	0.144	0.014	0.011
Jan-20	0	5,856	278	14,055	1,366	1,074
Feb-20	0	5,856	278	14,055	1,366	1,074
Mar-20	0	5,856	278	14,055	1,366	1,074
Apr-20	411	5,855	278	14,051	1,366	1,073
May-20	11,721	5,597	266	13,432	1,306	1,026
Jun-20	17,047	5,588	265	13,410	1,304	1,024
Jul-20	16,701	5,594	266	13,427	1,305	1,026
Aug-20	14,218	5,487	261	13,168	1,280	1,006
Sep-20	12,811	5,270	250	12,649	1,230	966
Oct-20	9,130	5,029	239	12,069	1,173	922
Nov-20	0	5,029	239	12,069	1,173	922
Dec-20	0	4,922	234	11,814	1,149	902
Total	82,039					

C-7748-13-11 Dehydration	Dryer #4 Gas (69 MMBTu)	Rolling Emission Factor Nox lb/MMBtu	Rolling Emission Factor Sox lb/MMBtu	Rolling Emission Factor CO lb/MMBtu	Rolling Emission Factor PM10 lb/MMBtu	Rolling Emission Factor VOCs lb/MMBtu
		0.06	**0.00285**	**0.144**	**0.014**	**0.011**
Jan-19	0	7,563	359	18,150	1,765	1,386
Feb-19	0	7,563	359	18,150	1,765	1,386
Mar-19	0	7,563	359	18,150	1,765	1,386
Apr-19	562	7,533	358	18,079	1,758	1,381
May-19	20,466	7,475	355	17,941	1,744	1,370
Jun-19	21,976	7,517	357	18,041	1,754	1,378
Jul-19	21,197	7,554	359	18,130	1,763	1,385
Aug-19	20,464	7,629	362	18,308	1,780	1,399
Sep-19	20,974	7,724	367	18,537	1,802	1,416
Oct-19	20,585	7,729	367	18,550	1,804	1,417
Nov-19	1,794	7,723	367	18,536	1,802	1,416
Dec-19	1,519	7,772	369	18,653	1,814	1,425
Total	129,537					

C-7748-13-12 Dehydration	Dryer #4 Gas (69 MMBtu)	Rolling Emission Factor Nox lb/MMBtu	Rolling Emission Factor Sox lb/MMBtu	Rolling Emission Factor CO lb/MMBtu	Rolling Emission Factor PM10 lb/MMBtu	Rolling Emission Factor VOCs lb/MMBtu
		0.06	**0.00285**	**0.144**	**0.014**	**0.011**
Jan-20	0	7,772	369	18,653	1,814	1,425
Feb-20	0	7,772	369	18,653	1,814	1,425
Mar-20	0	7,772	369	18,653	1,814	1,425
Apr-20	525	7,770	369	18,648	1,813	1,425
May-20	14,976	7,441	353	17,858	1,736	1,364
Jun-20	21,782	7,429	353	17,830	1,733	1,362
Jul-20	20,267	7,373	350	17,696	1,720	1,352
Aug-20	18,168	7,235	344	17,365	1,688	1,326
Sep-20	16,369	6,959	331	16,702	1,624	1,276
Oct-20	11,667	6,424	305	15,418	1,499	1,178
Nov-20	0	6,316	300	15,159	1,474	1,158
Dec-20	0	6,225	296	14,941	1,453	1,141
Total	103,754					

C-7748-16-8 Cogen	Gas Usage (MMBTu)	Hrs of Operation (4,320 Max Hrs/Yr)	Emission Factor g-Nox/hp-hr	Emission Factor g-SOx/hp-hr	Emission Factor g-CO/hp-hr	Emission Factor g-PM10/hp-hr	Emission Factor g-VOC/hp-hr
			0.06	0.011	0.6	0.02	0.15
Jan-19	0	0	575	105	5751	192	1438
Feb-19	0	0	575	105	5751	192	1438
Mar-19	0	0	575	105	5751	192	1438
Apr-19	0	0	575	105	5751	192	1438
May-19	1,325	168	616	113	6160	205	1540
Jun-19	2,890	367	579	106	5794	193	1449
Jul-19	4,832	614	673	123	6734	224	1684
Aug-19	4,651	591	664	122	6642	221	1661
Sep-19	4,185	531	713	131	7132	238	1783
Oct-19	2,611	332	646	118	6456	215	1614
Nov-19	0	0	646	118	6456	215	1614
Dec-19	0	0	646	118	6456	215	1614
Total	20,494						

C-7748-16-8 Cogen	Gas Usage (MMBTu)	Hrs of Operation (4,320 Max Hrs/Yr)	Emission Factor g-Nox/hp-hr	Emission Factor g-SOx/hp-hr	Emission Factor g-CO/hp-hr	Emission Factor g-PM10/hp-hr	Emission Factor g-VOC/hp-hr
			0.06	0.011	0.6	0.02	0.15
Jan-20	0	0	646	118	6456	215	1614
Feb-20	0	0	646	118	6456	215	1614
Mar-20	0	0	646	118	6456	215	1614
Apr-20	0	0	646	118	6456	215	1614
May-20	1	0	604	111	6039	201	1510
Jun-20	1,491	189	560	103	5598	187	1399
Jul-20	4,099	520	537	98	5367	179	1342
Aug-20	2,449	311	467	86	4673	156	1168
Sep-20	1,033	131	368	67	3681	123	920
Oct-20	0	0	286	52	2858	95	715
Nov-20	0	0	286	52	2858	95	715
Dec-20	0	0	286	52	2858	95	715
Total	9,074						

C-7748-22-1 Dehydration	Dryer #5 Gas (42 MMBTu)	Rolling Emission Factor Nox lb/MMBtu	Rolling Emission Factor Sox lb/MMBtu	Rolling Emission Factor CO lb/MMBtu	Rolling Emission Factor PM10 lb/MMBtu	Rolling Emission Factor VOCs lb/MMBtu
		0.06	0.00285	0.144	0.014	0.011
Jan-19	0	4,620	219	11,087	1,078	847
Feb-19	0	4,620	219	11,087	1,078	847
Mar-19	0	4,620	219	11,087	1,078	847
Apr-19	343	4,602	219	11,044	1,074	844
May-19	12,502	4,566	217	10,960	1,066	837
Jun-19	13,424	4,592	218	11,021	1,071	842
Jul-19	12,949	4,615	219	11,075	1,077	846
Aug-19	12,501	4,660	221	11,184	1,087	854
Sep-19	12,812	4,718	224	11,324	1,101	865
Oct-19	12,575	4,722	224	11,332	1,102	866
Nov-19	1,096	4,718	224	11,323	1,101	865
Dec-19	928	4,748	226	11,395	1,108	870
Total	79,130					

C-7748-22-2 Dehydration	Dryer #5 Gas (42.15 MMBtu)	Rolling Emission Factor Nox lb/MMBtu	Rolling Emission Factor Sox lb/MMBtu	Rolling Emission Factor CO lb/MMBtu	Rolling Emission Factor PM10 lb/MMBtu	Rolling Emission Factor VOCs lb/MMBtu
		0.06	0.00285	0.144	0.014	0.011
Jan-20	0	4,748	226	11,395	1,108	870
Feb-20	0	4,748	226	11,395	1,108	870
Mar-20	0	4,748	226	11,395	1,108	870
Apr-20	321	4,746	225	11,392	1,108	870
May-20	9,149	4,545	216	10,909	1,061	833
Jun-20	13,306	4,538	216	10,892	1,059	832
Jul-20	13,036	4,543	216	10,904	1,060	833
Aug-20	11,098	4,459	212	10,702	1,040	818
Sep-20	9,999	4,290	204	10,297	1,001	787
Oct-20	9,597	4,112	195	9,868	959	754
Nov-20	5,812	4,395	209	10,547	1,025	806
Dec-20	3,428	4,545	216	10,908	1,060	833
Total	75,747					

SAN JOAQUIN VALLEY UNIFIED
AIR POLLUTION CONTROL DISTRICT

MEMORANDUM

DATE: November 25, 2015
TO: Jason Lawler
C: Source Test File
FROM: John Copp

SUBJECT: Review of Source Test for Olam West Coast Inc.
October 15-17, 2014
ATC #s C-7748-10-7, -11-7, -13-7

Blue Sky Environmental, Inc. (Blue Sky) was retained by Olam West Coast Inc. (Olam) to conduct compliance emission tests of three natural gas-fired vegetable dehydrators with multiple burners arranged in series. The unit were fired by natural gas under normal operating conditions. The source tests measured NOx, CO, and O_2.

District compliance staff found notification, reporting, and source test protocols employed during the tests to be satisfactory.

The data and calculations included in the report submittal were evaluated to ensure accuracy. After determining that ppm concentrations were in compliance and that the emission factors were not in compliance, Olam had the reports revised using the flow rates measured during the tests (the initial report used Method 19 fuel rates to determine stack flow rates, the revised report used Methods 1-4).

A review of the revised report submitted by Blue Sky on behalf of Olam indicated that the dryer units had lower emission factors than the first report, yet even the revised emission factors were greater than the permit limits. Concentration compliance was maintained because of the calculation specifications of District Rule 4309 (no correction to concentrations when O2 is greater than 19%).

ATC C-7748-10-7 54 MMBtu/hr natural gas-fired dryer with Maxon burners – Line A

NOx	**1.9** ppmv (Limit 3.15 ppmv @ 19% O2)[1]	2.10 lb/hr	**0.055 lb/MMBtu (limit 0.036)**
CO	**4.2** ppmv (Limit 8.62 ppmv @ 19% O2)	2.88 lb/hr	0.076 lb/MMBtu (limit 0.077)
O_2	20.4%		
CO_2	0.37%		

Firing Rate: 630 scfm (73% load)
Exhaust Rate: 154 kdscfm (based upon EPA Methods 1-4)
Process Rate: 15,578 lb/hr

[1] Permit limits are specified with correction to 19% O2, with the provision that when measured O2 concentrations exceed 19% O2, then the corrected NOx or CO concentration is equal to the measured NOx or CO concentration.

ATC C-7748-11-7 54 MMBtu/hr natural gas-fired dryer with Maxon burners – Line B

NOx	**1.8** ppmv (Limit 3.15 ppmv @ 19% O2)[1]	1.94 lb/hr	**0.051 lb/MMBtu (limit 0.036)**
CO	**6.2** ppmv (Limit 8.62 ppmv @ 19% O2)	4.05 lb/hr	**0.106 lb/MMBtu (limit 0.077)**
O_2	20.4%		
CO_2	0.30%		

Firing Rate: 639 scfm (74% load)
Exhaust Rate: 148 kdscfm (based upon EPA Methods 1-4)
Process Rate: 16,303 lb/hr

ATC C-7748-13-7 69 MMBtu/hr natural gas-fired dryer with Maxon burners – Line D

NOx	**1.8** ppmv (Limit 3.15 ppmv @ 19% O2)[1]	2.10 lb/hr	**0.058 lb/MMBtu (limit 0.036)**
CO	**5.5** ppmv (Limit 8.62 ppmv @ 19% O2)	3.86 lb/hr	**0.107 lb/MMBtu (limit 0.077)**
O_2	20.5%		
CO_2	0.30%		

Firing Rate: 601 scfm (52% load)
Exhaust Rate: 160 kdscfm (based upon EPA Methods 1-4)
Process Rate: 16,230 lb/hr

ATC C-7748-10-7 Olam West Coast **Line A: 54 MMBtu/hr vegetable dehydration line with multiple natural gas burners**						
10/15/2014	Run 1	Run 2	Run 3	Average	PTO Limit	ATC Limit
Rating, MMBtu/hr	54	54	54	54.0		
Fuel rate, scfm	629.9	629.9	629.9	630		
HHV, BTU/ft3	1000	1000	1000	1,000		
Fuel, MMBtu/hr	37.8	37.8	37.8	37.8		
% Load, fuel	70.0	70.0	70.0	70.0		
F-Factor	8578	8578	8578	8,578		
O2 % (weighted avg.)	20.42	20.39	20.33	20.38		
CO2 % (weighted avg.)	0.32	0.49	0.32	0.38		
Qs (std) dscfm	155981	156477	148596	153685		
NOx ppm (weighted avg.)	1.9	1.9	2.0	1.9	5.25	3.15
NOx ppm @ 19% O2	7.6	7.2	7.0	7.3		
NOx lb/hr	2.12	2.15	2.02	2.097		
NOx lb/MMBtu	0.0562	0.0568	0.0535	**0.0555**	0.06 pass	0.036 **fail**
CO ppm (weighted avg.)	4.3	4.3	4.2	4.2	8.6	11.06
CO ppm @ 19% O2	17.49	16.25	14.31	16.02		
CO lb/hr	2.968	2.946	2.739	2.884		
CO lb/MMBtu	0.079	0.078	0.072	**0.0763**	0.06 **fail**	0.077 pass

60 F
1000 Btu/scf
379.5 ft3/lb-mole
8578 dscf/MMBtu @ 0% O2

7/29/15:
Stack flow rates (Qs) calculated using EPA Methods 1-4 ✓
Mass rates: NOx and CO lb/hr calculated using EPA Methods 1-4 ✓
Emission rates: NOx and CO lb/MMBtu calculated by dividing the lb/hr by the heat input (fuel data provided by Olam)

ATC C-7748-11-7 Olam West Coast **Line B: 54 MMBtu/hr vegetable dehydration line with multiple natural gas burners**						
10/16/1994	Run 1	Run 2	Run 3	Average	PTO Limit	ATC Limit
Rating, MMBtu/hr	54	54	54	54.0		
Fuel rate, scfm	638.8	638.8	638.8	639		
HHV, BTU/ft3	1000	1000	1000	1,000		
Fuel, MMBtu/hr	38.3	38.3	38.3	38.3		
% Load, fuel	71.0	71.0	71.0	71.0		
F-Factor	8578	8578	8578	8,578		
O2 % (weighted avg.)	20.47	20.44	20.37	20.43		
CO2 % (weighted avg.)	0.36	0.30	0.27	0.31		
Qs (std) dscfm	151641	150646	143050	148446		
NOx ppm (weighted avg.)	1.9	1.8	1.6	1.8	5.25	3.15
NOx ppm @ 19% O2	8.6	7.8	6.0	7.5		
NOx lb/hr	2.11	2.00	1.71	1.937		
NOx lb/MMBtu	0.0549	0.0522	0.0445	**0.0505**	0.06 pass	0.036 **fail**
CO ppm (weighted avg.)	5.8	6.1	6.6	6.2	8.6	11.06
CO ppm @ 19% O2	26.00	26.08	24.11	25.40		
CO lb/hr	3.877	4.092	4.174	4.047		
CO lb/MMBtu	0.101	0.107	0.109	**0.1056**	0.06 **fail**	0.077 **fail**

60 F
1000 Btu/scf
379.5 ft3/lb-mole
8578 dscf/MMBtu @ 0% O2

7/29/15:
Stack flow rates (Qs) calculated using EPA Methods 1-4 ✓
Mass rates: NOx and CO lb/hr calculated using EPA Methods 1-4 ✓
Emission rates: NOx and CO lb/MMBtu calculated by dividing the lb/hr by the heat input (fuel data provided by Olam)

ATC C-7748-13-7 Olam West Coast **Line D: 69 MMBtu/hr vegetable dehydration line with multiple natural gas burners**						
10/17/1994	Run 1	Run 2	Run 3	Average	PTO Limit	ATC Limit
Rating, MMBtu/hr	69	69	69	69.0		
Fuel rate, scfm	600.5	600.5	600.5	601		
HHV, BTU/ft3	1000	1000	1000	1,000		
Fuel, MMBtu/hr	36.0	36.0	36.0	36.0		
% Load, fuel	52.2	52.2	52.2	52.2		
F-Factor	8578	8578	8578	8,578		
O2 % (weighted avg.)	20.36	20.37	20.68	20.47		
CO2 % (weighted avg.)	0.38	0.28	0.29	0.32		
Qs (std) dscfm	170878	151581	158638	160366		
NOx ppm (weighted avg.	1.9	1.8	2.0	1.9	5.25	3.15
NOx ppm @ 19% O2	6.9	6.6	17.2	10.2		
NOx lb/hr	2.25	1.87	2.18	2.102		
NOx lb/MMBtu	0.0625	0.0519	0.0606	**0.0583**	0.06 pass	0.036 **fail**
CO ppm (weighted avg.)	5.6	5.4	5.2	5.4	8.6	11.06
CO ppm @ 19% O2	20.37	19.93	45.44	28.58		
CO lb/hr	4.257	3.646	3.665	3.856		
CO lb/MMBtu	0.1181	0.1012	0.1017	**0.1070**	0.06 **fail**	0.077 **fail**

60 F
1000 Btu/scf
379.5 ft3/lb-mole
8578 dscf/MMBtu @ 0% O2

7/29/15:
Stack flow rates (Qs) calculated using EPA Methods 1-4 ✓
Mass rates: NOx and CO lb/hr calculated using EPA Methods 1-4 ✓
Emission rates: NOx and CO lb/MMBtu calculated by dividing the lb/hr by the heat input (fuel data provided by Olam)

ATC C-7748-10-7 Olam West Coast
Line A: 54 MMBtu/hr vegetable dehydration line with multiple natural gas burners

10/15/2014	Run 1	Run 2	Run 3	Average	PTO Limit	ATC Limit
Rating, MMBtu/hr	54	54	54	54.0		
Fuel rate, scfm	629.9	629.9	629.9	630		
HHV, BTU/ft3	1000	1000	1000	1,000		
Fuel, MMBtu/hr	37.8	37.8	37.8	37.8		
% Load, fuel	70.0	70.0	70.0	70.0		
F-Factor	8578	8578	8578	8,578		
O2 %	20.45	20.42	20.36	20.41		
CO2 %	0.31	0.49	0.30	0.37		
Qs (std) dscfm	250952	235268	209127	231782		
NOx ppm	1.8	1.8	1.8	1.8	5.25 pass	3.15 pass
NOx ppm @ 19% O2	7.8	7.4	6.5	7.2		
NOx lb/hr	3.30	3.11	2.74	3.052		
NOx lb/MMBtu	0.0874	0.0824	0.0725	0.0808	0.06 fail	0.036 fail
CO ppm	4.4	4.2	4.2	4.3	8.6 pass	11.06 pass
CO ppm @ 19% O2	19.02	17.23	15.06	17.10		
CO lb/hr	4.879	4.418	3.862	4.386		
CO lb/MMBtu	0.129	0.117	0.102	0.1161	0.06 fail	0.077 fail

60 F
1000 Btu/scf
379.5 ft3/lb-mole
8578 dscf/MMBtu @ 0% O2

lb/hr & lb/MMBtu were calculated using fuel rates

ATC C-7748-11-7 Olam West Coast
Line B: 54 MMBtu/hr vegetable dehydration line with multiple natural gas burners

10/16/1994	Run 1	Run 2	Run 3	Average	PTO Limit	ATC Limit
Rating, MMBtu/hr	54	54	54	54.0		
Fuel rate, scfm	638.8	638.8	638.8	639		
HHV, BTU/ft3	1000	1000	1000	1,000		
Fuel, MMBtu/hr	38.3	38.3	38.3	38.3		
% Load, fuel	71.0	71.0	71.0	71.0		
F-Factor	8578	8578	8578	8,578		
O2 %	20.48	20.45	20.37	20.43		
CO2 %	0.35	0.29	0.26	0.30		
Qs (std) dscfm	272677	254498	216083	247753		
NOx ppm	1.9	1.8	1.6	1.8	5.25 pass	3.15 pass
NOx ppm @ 19% O2	8.6	7.8	5.9	7.4		
NOx lb/hr	3.69	3.31	2.53	3.178		
NOx lb/MMBtu	0.0963	0.0865	0.0660	0.0829	0.06 fail	0.036 fail
CO ppm	5.7	6.1	6.4	6.1	8.6 pass	11.06 pass
CO ppm @ 19% O2	26.42	26.22	23.69	25.44		
CO lb/hr	6.871	6.819	6.163	6.617		
CO lb/MMBtu	0.179	0.178	0.161	0.1727	0.06 fail	0.077 fail

60 F
1000 Btu/scf
379.5 ft3/lb-mole
8578 dscf/MMBtu @ 0% O2

lb/hr + lb/MMBtu were calculated using fuel rates

ATC C-7748-13-7 Olam West Coast
Line D: 69 MMBtu/hr vegetable dehydration line with multiple natural gas burners

10/17/1994	Run 1	Run 2	Run 3	Average	PTO Limit	ATC Limit
Rating, MMBtu/hr	69	69	69	69.0		
Fuel rate, scfm	600.5	600.5	600.5	601		
HHV, BTU/ft3	1000	1000	1000	1,000		
Fuel, MMBtu/hr	36.0	36.0	36.0	36.0		
% Load, fuel	52.2	52.2	52.2	52.2		
F-Factor	8578	8578	8578	8,578		
O2 %	20.39	20.37	20.67	20.48		
CO2 %	0.37	0.28	0.25	0.30		
Qs (std) dscfm	211094	203128	468077	294100		
NOx ppm	1.7	1.7	1.9	1.8	5.25 pass	3.15 pass
NOx ppm @ 19% O2	6.7	6.2	15.9	9.6		
NOx lb/hr	2.67	2.48	6.40	3.852		
NOx lb/MMBtu	0.0742	0.0689	0.1777	0.1069	0.06 fail	0.036 fail
CO ppm	5.7	5.6	5.4	5.6	8.6 pass	11.06 pass
CO ppm @ 19% O2	21.72	20.42	45.95	29.36		
CO lb/hr	5.310	4.992	11.235	7.179		
CO lb/MMBtu	0.147	0.139	0.312	0.1993	0.06 fail	0.077 fail

60 F
1000 Btu/scf
379.5 ft3/lb-mole
8578 dscf/MMBtu @ 0% O2

lb/hr & lb/MMBtu were calculated using fuel rates

Prepared For:

MMR Power Solutions, LLC
730 W. Pinedale Ave., Suite 101
Fresno, CA 93711

Attn: Mr. Brian Beaty

ANNUAL SOURCE EMISSION TESTING
Olam West Coast, Inc.
One 1,877 BHP Deutz Natural Gas-Fired IC Engine With a Miratech Selective Catalytic Reduction (SCR) System Powering a 1,350 kW Generator
Permit to Operate: C-7748-16-11
Tested On: August 4, 2020

Prepared By:

Reliable Emission Measurements, Inc.
34055 Natoma Rd.
Auberry, CA 93602
(559) 855-8402

Client Number:
1302

Laboratory Report Number:
209-074

Test Team Leader:
Cam Donnahoo
President

Reviewed By:
Jeremy Ross
Vice President

Submitted:
September 28, 2020

CARB METHOD 100 COMPLIANCE EMISSION CALCULATIONS

Client : Olam West Coast, Inc.
Site : Firebaugh, CA
Unit : Co-Gen 1
Permit #: C-7748-16-11

Date : 8/4/2020
T(std) : 68
Client #: 1302
Lab #: 209-074

FIELD DATA CALCULATIONS

Drift Corrected Emission Data

Run	Run #1	Run #2	Run #3	*Average*
NOx	4.1 ppmv	4.0 ppmv	3.9 ppmv	*4.0*
O2	8.6 %	8.6 %	8.6 %	*8.6*
CO	37.7 ppmv	37.6 ppmv	37.5 ppmv	*37.6*

Load Data

kW	966	978	973	*972*
RPM	1800	1800	1800	*1800*
NH3 Flow, L/min	1.0	1.0	1.0	*1.0*
Catalyst Outlet, °F	915	914	913	*914*
Qstd	2984.2	3044.3	3036.8	*3021.7*
Fuel F-Factor	8710	8710	8710	*8710*

CALCULATED EMISSIONS

OUTLET AVERAGE

NOx	*4.0*	*ppmv*
NOx	*1.9*	*ppmv @ 15% O2*
NOx	0.027	*g/bhp-hr*
O2	*8.6*	*%*
CO	*37.6*	*ppmv*
CO	*18.0*	*ppmv @ 15% O2*
CO	0.155	*g/bhp-hr*

Equations used;
NOx or CO @ 15% O2 = [ppmv] * (5.9 / (20.9 - %O2))
g/bhp-hr = 453*ppm*(MW/SV)*0 00848*F-Factor*(20.9/(20.9-O2))
Q dscfm = MMBtu/min * (F-factor) * (20.9 /(20.9 - Stack O2))
MWs: NOx = 46 CO = 28
SV = 379.5* ((460+ Tstd)/ 520)

OLAM West Coast Inc.

Compliance Emissions Test Report #16196

Dryer Line E
PERMIT # C-7748-22-1

Located at:

OLAM West Coast Inc.
47641 West Nees Ave.
Firebaugh, CA 93622

Performed and Reported by:

Blue Sky Environmental, Inc.
624 San Gabriel Avenue
Albany, CA 94706

Prepared For:

OLAM West Coast Inc.
47641 West Nees Ave.
Firebaugh, CA 93622

For Submittal To:

John Copp
San Joaquin Valley APCD
Central Regional Office
1990 E. Gettysburg Ave.
Fresno, CA 93726

Testing Performed On:
July 26th, 2016

Report Submitted On:
September 8th, 2016

BLUE SKY ENVIRONMENTAL, INC

TABLE #E-1

OLAM
DRYER E
RUN 1

TEST	B-3	B-2	B-1	A-4	A-3	A-2	A-1	FLOW -	TOTAL	LIMITS
Test Location	Outlet	Outlet	Outlet	Outlet	Outlet	Outlet	Outlet	WEIGHTED		
Test Date	7/26/16	7/26/16	7/26/16	7/26/16	7/26/16	7/26/16	7/26/16	AVERAGE		
Test Time	0808-0825	0827-0842	0849-0809	0910-0937	0946-1000	1006-1020	1025-1042			
Standard Temp., °F	60	60	60	60	60	60	60			
Burner Rating, MMBtu/Hr	42.15	42.15	42.15	42.15	42.15	42.15	42.15			
Burner Fuel Rate, SCFH	36,031	36,031	36,031	36,031	36,031	36,031	36,031		36,031	
Burner Fuel Rate, MMBtu/Hr									37.5	
Production Throughput, lbs/hr									16,303	
Flow Rate, DSCFM (M2)	7,861	9,780	11,257	10,275	30,181	13,938	24,201		107,493	
O_2, %	20.30	20.32	20.52	20.68	20.32	20.36	20.52	20.43		
CO_2, %	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40		
H_2O, %	3.1	3.5	1.0	0.8	4.6	4.0	4.2	3.0		
NOx, ppm	2.39	3.05	2.00	0.34	0.91	0.98	0.36			
NOx ppm @19% O_2 *	**2.39**	**3.05**	**2.00**	**0.34**	**0.91**	**0.98**	**0.36**	**1.16**		**5.25**
NOx, lbs/hr	0.14	0.22	0.16	0.03	0.20	0.10	0.06		0.90	
NOx, lbs/MMBtu (fuel rate based)									0.024	
CO, ppm	6.77	13.55	8.35	6.95	18.44	10.55	9.03			
CO ppm @19% O_2 *	**6.77**	**13.55**	**8.35**	**6.95**	**18.44**	**10.55**	**9.03**	**11.84**		**20.68**
CO, lbs/hr	0.24	0.59	0.42	0.32	2.46	0.65	0.97		5.64	
CO, lbs/MMBtu (fuel rate based)									0.150	

Notes:

Burners have one common meter

WHERE,

NOx = Oxides of Nitrogen as NO_2 (MW = 46)
CO = Carbon Monoxide (MW = 28)
CO_2 = Carbon Dioxide

lbs/MMBtu = Pounds per Million Btu
ppm = Parts Per Million Concentration
lbs/hr = Pound Per Hour Emission Rate
Tstd. = Standard Temp.; °R = °F+ 460

CALCULATIONS,

lbs/hr =ppm * 8.223 E-5 * DSCFM * MW of pollutant / Tstd. °R
lbs/MMBtu(fuel/flow based) = Emissions lbs/hr ÷ Burner Fuel Rate, MMBtu/hr
19% O_2 correction = ppm (NOx, CO) * 1.9/(20.9 - %O_2)
*No Correction made above 19%