



December 21, 2020

Wade Ingram
Liberty Packing Company - The Morning Star Company
12045 s Ingomar Grade Rd
Los Banos, CA 93635

RE: Final - Authority to Construct / Certificate of Conformity (Significant Modification)
Facility Number: N-1399
Project Number: N-1200345

Dear Mr. Ingram:

The Air Pollution Control Officer has issued the Authority to Construct permit to Liberty Packing Company - The Morning Star Company for a dryer, at 12045 S Ingomar Grade Rd, Los Banos, CA. Enclosed are the Authority to Construct permit and a copy of the notice of final action that has been posted on the District's website (www.valleyair.org).

Notice of the District's preliminary decision to issue the Authority to Construct permit was posted on September 9, 2020. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on September 8, 2020. All comments received following the District's preliminary decision on this project were considered.

Comments received by the District during the public notice period resulted in clarification of ATC conditions and a revision to the District engineering evaluation which is included as an enclosure. These changes were minor and did not trigger additional public notification requirements, nor did they have any impact upon the Best Available Control Technology determination or on the amount of offsets required for project approval.

Also enclosed is an invoice for the engineering evaluation fees pursuant to District Rule 3010. Please remit the amount owed, along with a copy of the attached invoice, within 60 days.

Prior to operating with the modifications authorized by the Authority to Construct, you must submit an application to modify the Title V permit as an administrative amendment

Samir Sheikh
Executive Director/Air Pollution Control Officer

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

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

December 21, 2020

Mr. Wade Ingram
Page 2

in accordance with District Rule 2520, Section 11.5. These forms may be found on the District's website at www.valleyair.org.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 392-5500.

Sincerely,

A handwritten signature in blue ink, appearing to read "Arnaud Marjollet".

Arnaud Marjollet
Director of Permit Services

AM:rue

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via EPS

Facility # N-1399
LIBERTY PACKING CO - THE MORNING STAR CO
12045 S INGOMAR GRADE RD
LOS BANOS, CA 93635

AUTHORITY TO CONSTRUCT (ATC)

QUICK START GUIDE

1. **Pay Invoice:** Please pay enclosed invoice before due date.
2. **Modify Your Title V Permit.** Prior to operating the equipment authorized under this ATC, submit an application to modify your Title V permit. See application forms at <http://www.valleyair.org/permits/TVforms>.
3. **Fully Understand ATC:** Make sure you understand ALL conditions in the ATC prior to construction, modification and/or operation.
4. **Follow ATC:** You must construct, modify and/or operate your equipment as specified on the ATC. Any unspecified changes may require a new ATC.
5. **Notify District:** You must notify the District's Compliance Department, at the telephone numbers below, upon start-up and/or operation under the ATC. Please record the date construction or modification commenced and the date the equipment began operation under the ATC. You may NOT operate your equipment until you have notified the District's Compliance Department. A startup inspection may be required prior to receiving your Permit to Operate.
6. **Source Test:** Schedule and perform any required source testing. See http://www.valleyair.org/busind/comply/source_testing.htm for source testing resources.
7. **Maintain Records:** Maintain all records required by ATC. Records are reviewed during every inspection (or upon request) and must be retained for at least 5 years. Sample record keeping forms can be found at http://www.valleyair.org/busind/comply/compliance_forms.htm.

By operating in compliance, you are doing your part to improve air quality for all Valley residents.

**For assistance, please contact District Compliance staff at
any of the telephone numbers listed below.**

Samir Sheikh
Executive Director/Air Pollution Control Officer

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4800 Enterprise Way
Modesto, CA 95356-8718
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AUTHORITY TO CONSTRUCT

PERMIT NO: N-1399-34-0

ISSUANCE DATE: 12/15/2020

LEGAL OWNER OR OPERATOR: LIBERTY PACKING CO - THE MORNING STAR CO

MAILING ADDRESS: 12045 S INGOMAR GRADE RD
LOS BANOS, CA 93635

LOCATION: 12045 S INGOMAR GRADE RD
LOS BANOS, CA 93635

EQUIPMENT DESCRIPTION:

TOMATO POMACE DRYING OPERATION WITH 35 MMBTU/HR DIRECT-FIRED NATURAL GAS-FIRED TRIPLE PASS ROTARY DRUM DRYER WITH JOHN ZINK RMB NATURAL GAS FIRED BURNER WITH A CYCLONE AND ORIFICE WET SCRUBBER SYSTEM (OR EQUIVALENT)

CONDITIONS

1. 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. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201]
4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2010]
5. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO



Arnaud Marjollet, Director of Permit Services

N-1399-34-0 : Dec 15 2020 10:10AM -- SCANDURL : 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. No emission factor and no emissions shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201]
8. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
10. The facility-wide NO_x emissions shall not exceed 33,705 pounds during any one rolling 12 month period. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Compliance with this permit limit shall be demonstrated as the product of monthly actual fuel use and NO_x emission factor from either the permit or source test or predictive emission monitoring system for each unit included in the SLC. Records of the combined annual emissions of NO_x for all permit units included in the SLC shall be kept as a 12 month rolling average and made available for District inspection upon request. [District Rules 1070 and 2201]
12. Dryer shall be fired only on PUC utility natural gas . [District Rules 2201, 4201, 4301, and 4801] Federally Enforceable Through Title V Permit
13. Dryer shall be equipped with operational fuel gauge to John Zink burners. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Scrubber shall be maintained in optimum working condition. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Scrubber shall be operated so as to maintain a sump level between 55% and 70% capacity. The sump level will be continuously recorded electronically with measurements made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All dryer exhaust gas shall be scrubbed in scrubber. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Annual operation of the dryer shall not exceed 4320 hr/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
18. If stack oxygen concentration equals or is less than 19%, scrubbed emissions from the dryer shall not exceed any of the following: NO_x 3.15 ppmv @ 19% O₂ ; CO 20.0 ppmv at 19% O₂; PM₁₀ 0.0312 lb/ton product; and VOC 3 ppmv @ 19% O₂ (as methane). [District Rule 2201, 4202 and 4309] Federally Enforceable Through Title V Permit
19. If stack oxygen concentration exceeds 19%, scrubbed emissions from the dryer shall not exceed any of the following: NO_x 3.15 ppmv (as measured); CO 20.0 ppmv (as measured); PM₁₀ 0.0312 lb/ton product; and VOC 3 ppmv (as measured). [District Rule 2201, 4202 and 4309] Federally Enforceable Through Title V Permit
20. PM₁₀ emissions may not exceed 18.7 lb/day. [District Rule 4102]
21. Maximum daily production of the wet tomato pumace shall not exceed 600 ton/day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. If either the NO_x or CO concentrations 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 performing the notification and testing required by this condition. [District Rule 4309] Federally Enforceable Through Title V Permit
24. 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] Federally Enforceable Through Title V Permit
25. 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] Federally Enforceable Through Title V Permit
26. Source testing to measure PM₁₀ emissions from the scrubber exhaust gas shall be conducted within 60 days of initial start-up and annually thereafter using EPA Method 201A in combination with EPA Method 202 or EPA Method 202 with EPA Method 5 assuming PM₁₀ = PM. [District Rule 1081 and 2201] Federally Enforceable Through Title V Permit
27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rule 4309] Federally Enforceable Through Title V Permit
28. 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
29. 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
30. All test results for NO_x 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
31. 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] 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. The results of each compliance test shall be submitted to the District within 60 days. [District Rule 1081] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 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

CONDITIONS CONTINUE ON NEXT PAGE

36. Records of monthly average fuel flow to dryer shall be kept for 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
37. Permittee shall maintain daily records of tomato pomace production. [District Rule 2201] Federally Enforceable Through Title V Permit
38. 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 Application Review

Install Tomato Pomace Dryer

Revised Final Decision

The Revised Final decision includes an updated Federal Offset Quantity determination. This change does not affect BACT requirements, or the offset requirements required to be provided by the applicant.

Facility Name: Liberty Packing Company – The Morning Star Company Date: 12/8/20
Mailing Address: 12045 S Ingomar Grade Rd Engineer: Richard Edgehill
Los Banos, CA 93635 Lead Engineer: Richard Karrs
Contact Person: Wade Ingram wingram@morningstarco.com and Brandon Salcido
(AECOM) brandon.salcido@aecom.com
Telephone: 209-826-5061, 714-689-7243 (BS, direct)
Application #(s): N-1399-34-0
Project #: 1200345
Deemed Complete: May 7, 2020

I. Proposal

Liberty Packing Company – The Morning Star Company (Liberty) has requested an Authority to Construct (ATC) permit for a new dried tomato pomace manufacturing operation. The operation will include a 35 MMBtu/hr direct-fired natural gas-fired triple pass rotary drum dryer equipped with a cyclone and a scrubber system.

There will be no change to the existing facility-wide NOx emission limit of 33,705 lb/year¹.

The project is a Federal Major Modification (Title V Significant Modification). BACT and Public Notice are required. Offsets are not required.

Liberty N-1399 operates under a Title V PTO. This modification can be classified as a Title V Significant Modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Liberty must apply to Administratively Amend their Title V permit.

¹ Note that this limit is for the potential emissions from all permit units, not including the ERC banked at this site.

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 4309	Dryers, Dehydrators, And Ovens (12/15/05)
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 located at 12045 S. Ingomar Grade Rd., Los Banos, California 93635. 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.

A location map is included in **Attachment I**.

IV. Process Description

Liberty proposes to install equipment to produce tomato pumace. The operation consists of processing tomatoes containing skins and seeds that is dried in a rotary kiln and ground using a 8/32" screen. The temperature of the kiln dryer is expected to be approximately 180 °F. An induced draught (ID) fan rated at 35,000 scfm provides air flow for the process.

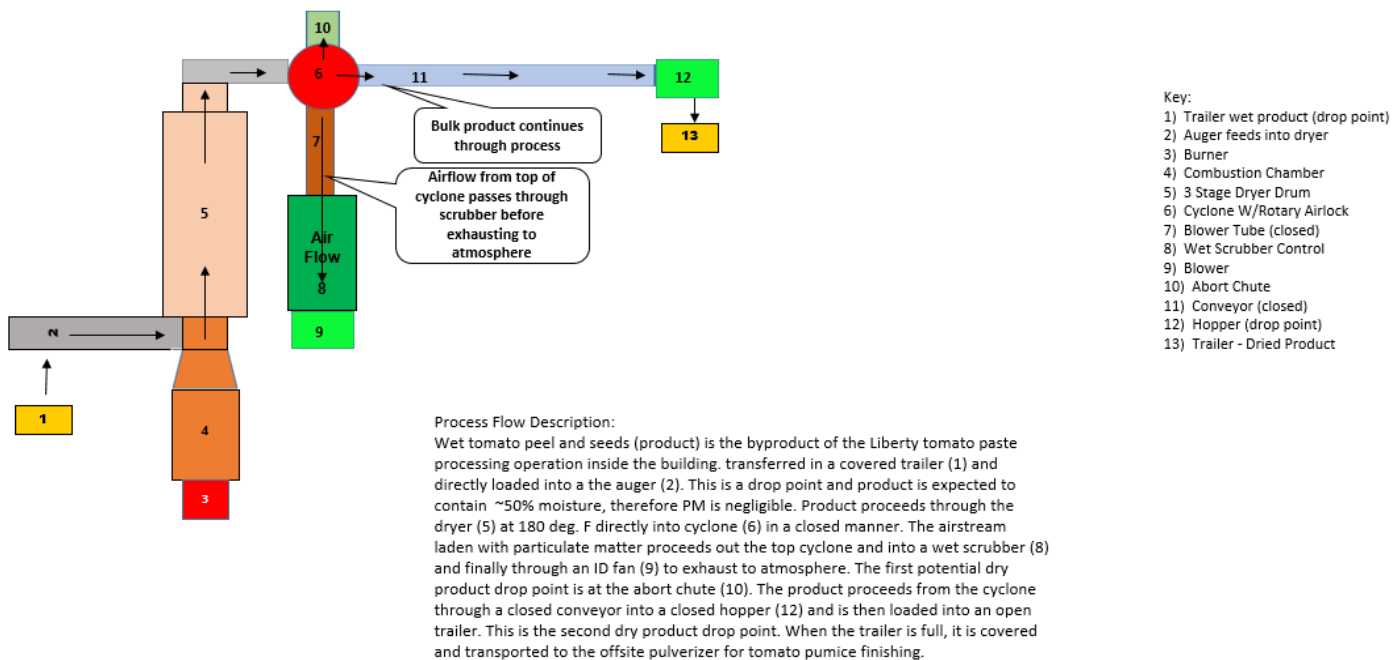
Liberty proposes to install one John Zink natural gas fired rapid mix burner (RMB) rated at 35 million British thermal units per hour (MMBtu/hr) to provide heat input to the dryer. This burner will utilize a 7,862 scfm external combustion blower. Therefore, the total flowrate from the exhaust stack including the ID fan and combustion blower is rated at 42,862 scfm. The burner system is fully metered to measure and control the air flow and fuel flow to maintain low NOx and CO emissions.

PM10 Control – Orifice Wet Scrubber

The orifice wet scrubber is designed to control PM emissions from the exhaust dust of the tomato dryer. In the orifice scrubber gases enter through a horizontal opening. They travel across the

surface of the scrubbing liquid and pass through an orifice created by the scrubbing elements and the surface of the water. Gas acceleration in this area serves to sweep water up into the scrubbing element, shearing the surface of the water into fine droplets. In the scrubbing element, the liquid droplets and air mixture are mixed thoroughly, resulting in capture of the particulate or adsorption of the gaseous contaminants by the water droplets. Upon discharge from the scrubbing element, the gas/water mixture is exposed to inertial separation deflectors which redirect the water downward to the tube sheet and allow the clean gases to discharge from the upper section of the scrubber. These gases then pass through the induced draft fan and are discharged to the atmosphere. Water separated by the inertial separation deflectors drains across the tube sheet and back into the hopper by way of downcomer pipes. Water level in the hopper is controlled by a makeup system. The solids collected by the scrubber are removed by a direct drive drag conveyor.

Liberty expects to operate this tomato dryer for a maximum of 180 days (4320 hr) per year at full load, equivalent to 151,200 MMBtu/yr. A process diagram follows.



Tomato Drying Process Flow Diagram

V. Equipment Listing

Post-Project Equipment Description:

N-1379-34-0: TOMATO POMACE DRYING OPERATION WITH 35 MMBTU/HR DIRECT-FIRED NATURAL GAS-FIRED TRIPLE PASS ROTARY DRUM DRYER WITH JOHN ZINK RMB NATURAL GAS FIRED BURNER WITH A CYCLONE AND ORIFICE WET SCRUBBER SYSTEM (OR EQUIVALENT)

VI. Emission Control Technology Evaluation

Emissions from the proposed dryer include NO_x, CO, VOC, PM₁₀, and SO_x.

NO_x is the major pollutant of concern when burning natural gas. NO_x formation is either due to thermal fixation of atmospheric nitrogen in the combustion air (thermal NO_x) or due to conversion of chemically bound nitrogen in the fuel (fuel NO_x). Due to the low fuel nitrogen content of natural gas, nearly all NO_x emissions are thermal NO_x. Formation of thermal NO_x is affected by four furnace zone factors: (1) nitrogen concentration, (2) oxygen concentration, (3) peak temperature, and (4) time of exposure at peak temperature.

Liberty proposes to install one John Zink natural gas fired rapid mix burner (RMB) with guaranteed NO_x emissions of 3.15 @ 19% O₂, 0.036 lb/MMBtu which is the BACT limit.

PM₁₀ emissions from the dryer will be controlled using an orifice wet scrubber.

Attachment II provides the burner manufacturer specifications and equipment details.

VII. General Calculations

A. Assumptions

New dryer will operate 24 hr/day, 4320 hr/yr.

Dry tomato pomace production: 25 tons/hr, 600 tons/day

Due to significant moisture content (i.e., 55%), wet tomato pomace loading is not expected to generate particulate matter emissions. Further, moisture content of material received by dryer is approximately 55%. Moisture content of solids exiting dryer is approximately 10%. Therefore, no drop point (conveying or stockpiling) PM₁₀ emissions at dryer exit are expected.

Material discharging from the dryer will be sent offsite to a dry tomato pomace pulverizing process (District project N-1202361).

The facility has an existing SLC, SSPE1, for NO_x of 33,075 lb/year.

NO_x emissions from the new dryer will be included in the existing facility wide NO_x SLC.

Existing permits units with NO_x emissions that are covered by the existing NO_x SLC are not being modified. However, NO_x baseline emissions for these units are determined below, and utilized in the offset calculations for the proposed new dryer.

SSPE1 is calculated for VOC, CO, PM₁₀, and SO_x by determining the highest emissions that could be emitted for each pollutant while complying with the existing facility wide NO_x SLC of 33,705 lb/yr. See calculation of SSPE1 in **Attachment III**.

To streamline emission calculations, PM_{2.5} emissions are assumed to be equal to PM₁₀ 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.

Additional assumptions will be stated as they are made during the evaluation.

B. Emission Factors

Tomato pomace dryer:

Pollutant	EF	Source
NO _x	3.15 ppmvd @ 19% O ₂ (0.036 lb/MMBtu)	Applicant's proposal – John Zink Hamworthy burner specification
SO _x	0.00285 lb/MMBtu	District Policy APR-1720
PM ₁₀	0.78 lb/hr, 0.78/25 = 0.0312 lb/ton	AAQA limit, 18.7 lb/day/24 hr/day
CO	20 ppmvd @ 19% O ₂ (0.139 lb/MMBtu)	Applicant's proposal – John Zink Hamworthy burner specification
VOC	0.36 lb/hr	Proposed by the applicant, see e-mail dated 6/4/20

C. Calculations

1. Pre-Project Potential to Emit (PE1)

The permit unit is new and therefore PE1 = 0.

2. Post-Project Potential to Emit (PE2)

Tomato pomace dryer:

$$\text{PE2 (lb/day)} = \text{EF (lb/MMBtu)} \times 35 \text{ MMBtu/hr} \times 24 \text{ hr/day}$$

$$\text{PE2 (lb/day)} = \text{PE2 (lb/hr)} \times 24 \text{ hr/day}$$

$$\text{PE2 (lb/yr)} = \text{EF (lb/MMBtu)} \times 35 \text{ MMBtu/hr} \times 4,320 \text{ hr/yr}$$

$$\text{PE2 (lb/yr)} = \text{PE2 (lb/hr)} \times 4,320 \text{ hr/yr}$$

$$\text{NO}_x: 0.036 \text{ lb/MMBtu} \times 35 \text{ MMBtu/hr} = 1.26 \text{ lb/hr}$$

$$\text{SO}_x: 0.00285 \text{ lb/MMBtu} \times 35 \text{ MMBtu/hr} = 0.01 \text{ lb/hr}$$

$$\text{PM}_{10}: 0.0312 \text{ lb/ton} \times 25 \text{ ton/hr} = 0.78 \text{ lb/hr}$$

$$\text{CO}: 0.139 \text{ lb/MMBtu} \times 35 \text{ MMBtu/hr} = 4.87 \text{ lb/hr}$$

$$\text{VOC}: 0.36 \text{ lb/hr}$$

Pollutant	PE2 (lb/hr)	PE2 (lb/day)	PE2 (lb/yr)
NOx	1.26	30.2	5,443
SOx	0.01	0.2	43
PM ₁₀	0.78	18.7	3,370
CO	4.87	116.9	21,038
VOC	0.36	8.6	1,555

Emissions profiles are included in **Attachment IV**.

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.

SSPE1 (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE1 from permit units (See attachment III)	33,705	12,618	15,516	159,208	12,323
ERC N-33-1	--	--	--	--	241
ERC N-33-2	90,905	--	--	--	--
ERC N-33-4	--	--	3,215	--	--
ERC N-33-5	--	34,984	--	--	--
ERC N-96-2	1,701	--	--	--	--
ERC N-96-3	--	--	--	837	--
Tootler	92,606	34,984	3,215	837	241
SSPE1	126,311	47,602	18,731	160,045	12,564

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)					
	NO_x	SO_x	PM₁₀	CO	VOC
SSPE1 from permit units (See attachment III)	33,705	12,618	15,516	159,208	12,323
N-1399-34	5,443	43	3,370	21,038	1,555
Total permit units	33,705*	12,661	18,886	180,246	13,878
ERC N-33-1	--	--	--	--	241
ERC N-33-2	90,905	--	--	--	--
ERC N-33-4	--	--	3,215	--	--
ERC N-33-5	--	34,984	--	--	--
ERC N-96-2	1,701	--	--	--	--
ERC N-96-3	--	--	--	837	--
Tootler	92,606	34,984	3,215	837	241
SSPE2	126,311	47,645	22,101	181,083	14,119

* NO_x SLC will not increase

5. Major Source Determination

Rule 2201 Major Source Determination:

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

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

Rule 2201 Major Source Determination (lb/year)						
	NO_x	SO_x	PM₁₀	PM_{2.5}	CO	VOC
SSPE1	33,705*	12,618	15,296	15,296	159,208	12,323
SSPE2	33,705*	12,661	18,666	18,666	180,246	13,878
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 PM₁₀

* facility emissions under proposed SLC

As seen in the table above, the facility is an existing Major Source for NO_x and is not becoming a Major Source for any other pollutant as a result of this project.

Rule 2410 Major Source Determination:

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

PSD Major Source Determination (tons/year)						
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀
Estimated Facility PE before Project Increase	16.9	6.2	6.3	79.6	7.6	7.6
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.

The dryer is new and therefore BE = 0 for all pollutants.

As shown in Section VII.C.5 above, the facility is not a Major Source for CO, VOC, PM10/PM2.5, or SOx.

This facility is a major source for NOx emissions, and has a facility-wide SLC for NOx emissions.

Existing permits units with NOx emissions that are covered by the existing NOx SLC are not being modified. However, NOx baseline emissions for these units are determined below, and utilized in the offset calculations for the proposed new dryer.

In order to determine the BE, pursuant to Rule 3.8 definition of baseline emissions) for the emission units with NOx emissions covered under the SLC, the following table summarizes if each unit in the SLC qualifies as Clean Emission Unit pursuant to Rule 2201 section 3.8.1.4. Please note that the table below only lists permit units with NOx emissions.

NOx

Permit unit	Description	Achieved-in-practice limit or tech. accepted in the past five year (2015-2020)	Permitted NOx limit	Clean Emission Unit?
N-1399-4	220 MMBtu natural gas fired boiler	7 ppmv @ 3% O2	7 ppmv @ 3% O2	Yes
N-1399-5	220 MMBtu natural gas fired boiler	7 ppmv @ 3% O2	7 ppmv @ 3% O2	Yes
N-1399-11	94 bhp diesel fueled fire pump engine	6.9 g/bhp-hr (BACT guideline 3.1.4.D prior to 3/2/2020)	6.1 g-NOx/bhp-hr	Yes
N-1399-13	180 MMBtu/hr natural gas fired boiler	7 ppmv @ 3% O2	7 ppmv @ 3% O2	Yes
N-1399-16	10 MMBtu/hr tomato roaster	Current BACT Guideline 1.6.1 0.073 lb-NOX/MMBtu)	0.0364 lb-NOx/MMBtu	Yes
N-1399-17	263 MMBtu/hr natural gas fired boiler	7 ppmv @ 3% O2	5 ppmv @ 3% O2	Yes
N-1399-20	36 MMBtu/hr natural gas fired boiler	7 ppmv @ 3% O2	7 ppmv @ 3% O2	Yes
N-1399-21	389 bhp diesel fueled gen set engine	Tier-3 certification	2.37 g/bhp-hr Tier 3 certified	Yes
N-1399-24	458.5 MMBtu/hr natural gas fired boiler	7 ppmv @ 3% O2	5 ppmv @ 3% O2	Yes
N-1399-30	3.5 MW Cogen with 51.7 MMBtu/hr gas turbine served by SCR	2.5 ppmv @ 15% O2	2.5 ppmv @ 15% O2	Yes
N-1399-32, N-1399-33	1492 bhp diesel-fired emergency IC engine	Tier 2 Certified	3.95 g/bhp-hr	Yes

As shown in the table above, all NOx emitting emissions units under the SLC are clean emissions units. As such, pursuant to Rule 2201 section 3.8, the NOx baseline emissions are set equal to the potential to emit for the NOx SLC, i.e. 33,705 lb/year.

Therefore, BE = 33,705 lb-NOx/yr (listed in the SSPE1 table above)

7. SB 288 Major Modification

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

The source is not a major source for SOx, PM10, and VOCs and therefore the project is not a SB 288 Major Modification for these pollutants.

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

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NOx	5,443	50,000	No

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

8. Federal Major Modification /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.

Since this facility is not a major source for SOx, PM10, or VOCs, this project does not constitute a Federal Major Modification for these air contaminants.

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 can not 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

Project Emissions Increase

In conclusion, 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 *	5,443	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.

Federal Offset Quantity Calculation (revised)

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.

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.

Federal Offset Ratio

According to the CAA 182(e), the federal offset ratio for VOC and NO_x is 1.5 to 1 (due to the District extreme non-attainment status for ozone). Otherwise, the federal offset ratio for PM_{2.5}, PM₁₀, and SO_x is 1.0 to 1.

Federal Offset Quantity (FOQ)

The dryer NO_x emissions will be included in the existing NO_x SLC. As such, the FOQ will be calculated as shown below.

The following equation is used, as the NO_x SLC is Federally Enforceable

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

For this project, a new ATC condition has been added to ensure that the SLC Condition is Federally Enforceable. AE is for the years 2018 and 2019. Fuel use and emissions factor information for calculation of the NO_x AE listed in the table below is included in **Attachment V**.

Actual Emissions:

PERMIT UNIT	DESIGNATION	2018 NO _x AE (lb/yr)	2019 NO _x AE (lb/yr)	Average NO _x AE (lb/yr)
N-1399-4-5	Boiler 3	1050.6	2048.7	1,549.7
'-5	Boiler 4	1991.1	2252.7	2,121.9
'-11	Diesel Fire Pump	15.2	15.2	15.2
'-13	Boiler 2	348.4	2.0	175.2
'-16	Fire Roaster	202.7	365.5	284.1
'-17	Boiler 1	2678.6	1207.3	1,943.0
'-20	Boiler 5	310.6	255.2	282.9
'-21	Diesel Generator	0.5	0.5	0.5
'-24	Boiler 6	2594.3	2216.5	2,405.4
'-30*	Gas Turbine 1	0.0	398.8	398.8
'-32	Backup Generator 1	0.0	0.0	0.0
'-33	Backup Generator 2	0.0	0.0	0.0
TOTAL		9,192	8,762	9,177

Therefore,

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

$$= (33,705 - 9,177) \times 1.5$$

$$= 36,792 \text{ lb/yr}$$

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)

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

- PM
- PM10

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	2.7	0.8	0.02	10.5	1.7	1.7
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	N	N	N	N	N	N

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

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. The permit unit is new and therefore QNEC = PE2/4.

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*:

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

As seen in Section VII.C.2 above, the applicant is proposing to install a new dryer with a PE greater than 2 lb/day for NO_x, PM₁₀, CO, and VOC. BACT is triggered for NO_x, PM₁₀, and VOC only since the PEs are 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.4 above.

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

As discussed in Section I above, there are no modified emissions units associated with this project. Therefore BACT is not triggered.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project triggers a Federal Major Modification for NO_x emissions. Therefore, BACT is triggered for NO_x for the dryer.

2. BACT Guideline

BACT Guideline 1.6.13, applies Dehydrator Vegetable Continuous Process

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 1.6.13*

Last Update: 6/26/1998

Dehydrator - Vegetable, Continuous Process

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

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice

3. Top-Down BACT Analysis

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

Pursuant to the attached Top-Down BACT Analysis (see **Attachment VI**), BACT has been satisfied with the following:

NOx: Low NOx burner 0.036 lb NOx/MMBtu

PM10: PUC quality natural gas and vents to a cyclone that separates out product (wet tomato solids) by centrifugal force. Cyclone gas vents to orifice wet scrubber for removal of PM10 prior to discharge to atmosphere. This system is considered to be equivalent to the BACT Guideline 1.6.13 requirement of venting to cyclone (> 90% control efficiency) on product transfer points.

VOC: PUC quality natural gas fuel

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.

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

Offset Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE2	126,311	47,645	21,881	181,083	14,119
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets calculations required	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.

There is no increase in facility NO_x emissions as demonstrated below. Offsets are not required for the project.

Permit unit N-1399-34 is a part of the combined emission rate established for units N-1399-4, '-5, '-11, '-13, '-16, '-17, '-20, '-24, '-31, '-32, and '-33.

Pursuant to District Policy APR 1420, *NSR Calculations for Units with Specific Limiting Conditions (3/12/07)*, the quantity of ERCs for a project will be determined by comparing the post project PE, which is the SLC, to the pre project BE for the SLC.

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

As calculated in Section VII.C.6 above, the BE is equal to the PE1 since the units under the combined limit are all Clean Emissions Units. Furthermore, there is no increase in cargo carrier emissions. Therefore offsets can be determined as follows:

$$\text{Offsets Required (lb/year)} = ([\text{PE}_{2\text{SLC}} - \text{BE}_{\text{SLC}}]) \times \text{DOR}$$

NO_x:

$$\text{PE}_{2\text{SLC}} = 33,705 \text{ lb/year}$$

$$\text{BE}_{\text{SLC}} = 33,705 \text{ lb/year}$$

$$\begin{aligned}\text{Offsets Required (lb/year)} &= ([33,705 - 33,705) \times \text{DOR} \\ &= 0 \text{ lb-NO}_x/\text{year}\end{aligned}$$

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 Section VII.C.8, this project triggers a Federal Major Modification for NO_x emissions; 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 include a new emissions unit which has daily emissions greater than 100 lb/day for CO; therefore, **public noticing for PE > 100 lb/day purposes is 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	126,311	126,311	20,000 lb/year	No
SO _x	47,602	47,645	54,750 lb/year	No
PM ₁₀	18,511	21,881	29,200 lb/year	No
CO	160,045	181,083	200,000 lb/year	No
VOC	12,564	14,119	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	126,311	126,311	0	20,000 lb/year	No
SO _x	47,645	47,602	43	20,000 lb/year	No
PM ₁₀	21,881	18,511	3,370	20,000 lb/year	No
CO	181,083	160,045	21,038	20,000 lb/year	Yes
VOC	14,119	12,564	1,555	20,000 lb/year	No

As demonstrated above, the SSIPes for CO was greater than 20,000 lb/year; therefore, **public noticing for SSIPe purposes is 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 Modification is required for this project.**

2. Public Notice Action

As discussed above, public noticing is required for this project for CO emissions in excess of 100 lb/day and 20,000 lb/yr, and also because the project is both a Federal Major Modification and a Title V Significant Permit Modification. Therefore, public notice

documents will be submitted to the California Air Resources Board (CARB), the Environmental Protection Agency (EPA), 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:

- *Scrubbed emissions from the dryer shall not exceed any of the following: NO_x 3.15 ppmv @ 19% O₂ (0.036 lb/MMBtu); CO 20.0 ppmv at 19% O₂ (0.139 lb/MMBtu); PM₁₀: 0.0312 lb/ton product; and VOC 0.36 lb/hr. [District Rule 2201, 4202 and 4309] Y*

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is required to demonstrate compliance with Rule 2201. The ATC includes the following conditions:

- *Compliance testing shall be conducted at a firing rate of at least 80% of the maximum firing rate. If test results extrapolated to 100% firing rate (lb/hr emissions x 100/percent firing rate) do not project compliance, firing rate shall be limited to that measured during test which demonstrated compliance. [District Rule 2201] Y*
- *Source testing to measure PM₁₀ emissions from the scrubber exhaust gas shall be conducted within 60 days of initial start-up and annually thereafter using EPA Method 5, or CARB 501 in combination with CARB 5. [District Rule 1081 and 2201] Y*

District Rule 4309 requires NO_x and CO emission testing not less than once every 12 months. Gaseous fuel fired units demonstrating compliance on two consecutive compliance source tests may defer the following source test for up to thirty-six months.

- *Source testing to measure NO_x and CO emissions from this shall be conducted within 60 days of initial start- and at least once every 24 months thereafter. [District Rules 2201 and 4309] Y*

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

The applicant proposed to utilize pre-approve alternate monitoring plan “A” (Periodic Monitoring NO_x, CO, and O₂ Emissions Concentrations) to meet the requirements of District Rule 4309. Monitoring for Rule 4309 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 condition(s) are listed on the permit to operate:

- *Records of monthly average fuel flow to dryer shall be kept for 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Y*
- *If fuel firing rate to dryer is limited to that measured during the source test as required by Condition 10, records of daily fuel flow to dryer shall be kept. [District Rule 1070] Y*
- *Permittee shall maintain daily records of tomato pomace production in units tons/day. [District Rule 2201] Y*
- *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] Y*

4. Reporting

No reporting is required to demonstrate compliance with 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 **Attachment VII** of this document for the AAQA summary sheet.

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

The proposed location is in a non-attainment area for the state’s PM₁₀ as well as federal and state PM_{2.5} thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM₁₀ and PM_{2.5}.

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 facility is a new major source and this project does constitute a Federal Major Modification, therefore this requirement is applicable. Liberty's Statewide Compliance Certification is included in **Attachment VIII**.

H. Alternate Siting Analysis

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

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

Rule 2410 Prevention of Significant Deterioration

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

Rule 2520 Federally Mandated Operating Permits

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

Minor permit modifications are not Title I modifications as defined in this rule. This project triggers a Federal Major Modification, as a result, the proposed project constitutes a Significant Modification to the Title V Permit. Liberty's Title V Compliance Certification form is included in **Attachment VIII**.

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 proposed dryer.

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

The source is not a Major HAPs source and therefore Rule 4002 is not applicable.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). As the dryer is fired solely on natural gas and is equipped with a scrubber, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. Also, based on past inspections of the facility continued compliance is expected.

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.

California Health & Safety Code 41700 (Health Risk Assessment)

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

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (**Attachment VII**), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project. The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
N-1399-34	1.3 E-08	No

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project. The following special conditions are required:

Unit # 34-0

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. PM₁₀ and PM_{2.5} emissions may not exceed 18.7 lb/day.

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.

$$\text{PM Conc. (gr/scf)} = \frac{(0.78 \text{ lb/hr}) \times (7,000 \text{ gr/lb})}{(42,862 \text{ scfm}) \times (60 \text{ min/hr})}$$

PM₁₀ emission rate = 0.78 lb/hr. Assuming 100% of PM is PM₁₀

Exhaust Gas Flow = 42,862 scfm (Supplemental Application Form for scrubber)

PM Conc. (gr/scf)

$$= [(0.78 \text{ lb/hr}) \times (7,000 \text{ gr/lb})] \div [(42,862 \text{ ft}^3/\text{min}) \times (60 \text{ min/hr})]$$

$$\text{PM Conc.} = 0.002 \text{ gr/scf} < 0.1 \text{ gr/scf}$$

Continued compliance is expected.

Rule 4202 Particulate Matter Emission Rate

Rule 4202 establishes PM emission limits as a function of process weight rate in tons/hr. Gas and liquid fuels are excluded from the definition of process weight.

Maximum Allowable Emission Rate:

$$E_{\text{Max}} = 3.59 P^{0.62} \quad (P \leq 30 \text{ tons per hour})$$

Where: E = Emissions in pounds per hour

P = Process weight rate in tons per hour (25 tons/hr)

$$\begin{aligned} E_{\text{Max}} &= 3.59 25^{0.62} \quad (P \leq 30 \text{ tons per hour}) \\ &= 26.41 \text{ lb/hr} \end{aligned}$$

Assuming all permitted PM₁₀ = TSP

$$\begin{aligned} \text{TSP} &= \text{PM}_{10} = 26.41 \times 24 \\ &= 633.8 \text{ lb PM}_{10}/\text{day} \end{aligned}$$

The permit limit is 18.7 lb PM₁₀/day.

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

Rule 4309 Dryers Dehydrators, and Ovens

This rule limits the NO_x and CO emissions from direct-fired dryers, dehydrators, and ovens > 5.0 MMBtu/hr.

The proposed dryer is rated at 35 MMBtu/hr and is subject to the rule and is required to comply with the Table 1 NO_x and CO limits of 4.3 ppmv NO_x and 42 ppmv CO corrected to either 19% O₂, if the measured exhaust O₂ concentration is less than 19%, or uncorrected if the measured O₂ concentration is greater than 19%.

Section 5.0 - Requirements

Table 1 NOx and CO Limits (Referenced at dry stack conditions and adjusted using the oxygen correction factor as defined in Section 3.0)

Process Description	NOx 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 applicant is proposing 3.15 ppmv NOx and 20 ppmv CO at 19% O₂. The proposed emission limits meet the requirements (Other processes) shown above.

Section 5.4 - Monitoring requirements

The applicant is proposing to monitor NOx, CO, and O₂ as outlined in section 5.4.1.2.2, by doing periodic monitoring of the exhaust emissions concentrations.

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

- {3741} *The permittee shall monitor and record the stack concentration of NOx, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309] N*
- {3742} *If either the NOx or CO concentrations 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] N*
- {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] N

Sections 5.5 and 6.3 – Compliance determination and Demonstration

The following conditions will be added to ensure compliance with sections 5.5 and 6.3 of the rule.

- *{3713} All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rule 4309]*
- *{3714 modified} Source testing to measure NO_x and CO emissions from this unit shall be conducted within 60 days of initial start-up and at least once every 24 months thereafter. [District Rules 2201 and 4309]*
- *{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]*
- *{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]*
- *{3722} All test results for NO_x and CO shall be reported in ppmv at stack conditions (or corrected to 19% O₂ if measured above 19% O₂), corrected to dry stack conditions. [District Rule 4309]*
- *{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 (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309]*

Section 6.0 – Administrative Record keeping Requirements

The following conditions will be added to ensure compliance with section 6 of the rule.

- {3744} *The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 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] N*

Permittee shall maintain daily records of tomato pomace production. [District Rule 2201]

- {3723} *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] N*

Compliance with Rule 4309 is expected.

Rule 4801 Sulfur Compounds

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

The unit will be fired exclusively on pipeline natural gas (1 gr S/100 scf). Compliance is expected.

California Health & Safety Code 42301.6 (School Notice)

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

California 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 ATC N-1399-34-0 subject to the permit conditions on the attached draft ATC in **Attachment IX**.

X. Billing Information

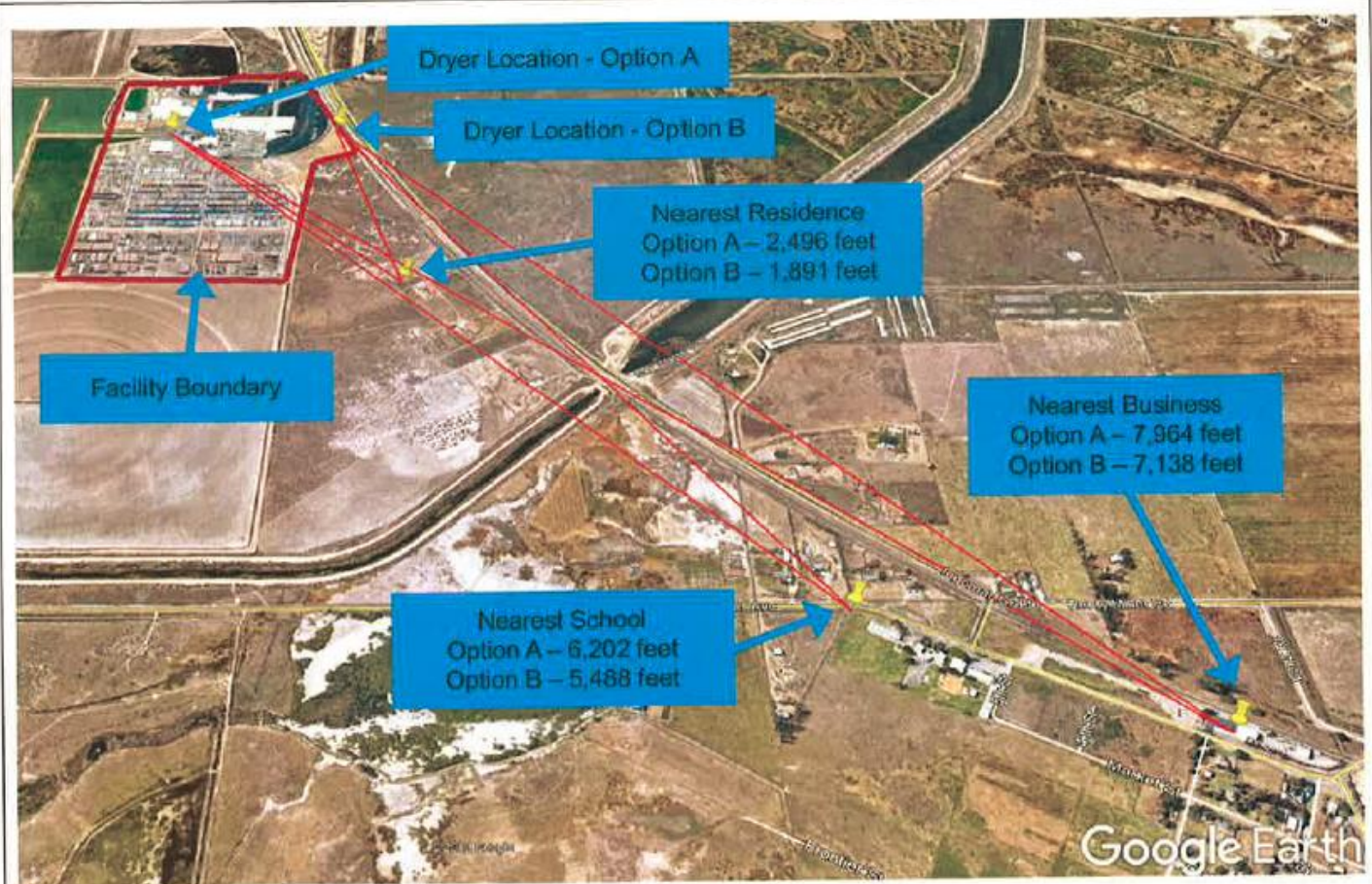
Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
N-1399-34-0	3020-02-H	35 MMBtu/hr	\$1238.00

Attachments

- I: Location Map
- II: Burner Manufacturer Details
- III: SSPE1 calculations
- IV: Emissions Profiles
- V: Baseline Emissions Information
- VI: BACT Analysis
- VII: HRA and AAQA
- VIII: Title V and Statewide Compliance Documents
- IX: Draft ATC
- X: Comments and responses

Attachment I Location Map

Figure 1. Equipment Location Map



Liberty Packing Co-The Morning Star Co. (SJVAPCD ID N-1399)
12045 S. Ingomar Grade Rd., Los Banos, California 93635

Attachment II

Burner and Scrubber Manufacturer Details

BURNER SPECIFICATION		JOHN ZINK HAMWORTHY COMBUSTION		JOHN ZINK QUOTE NUMBER: 201912-121992	
ADAPTED FROM: API STANDARD 560 and API RECOMMENDED PRACTICE 535		REVISION		DATE: SHEET 1 of 4	
CUSTOMER: Liberty Packing Company, LLC		OPPORTUNITY NUMBER: Q00445			
END USER: Liberty Packing Company, LLC		JOB SITE LOCATION: Los Banos, CA			
BOILER GENERAL DATA					REV
1	BOILER DESIGNATION / TAG				
2	BOILER MANUFACTURER				
3	NUMBER OF BOILERS	1			
4	TYPE / MODEL OF BOILER	R80			
5	STEAM FLOW - 100% MCR	PPH			
6	STEAM PRESSURE	PSIG			
7	STEAM TEMPERATURE	°F			
8	FEEDWATER TEMPERATURE	°F			
9	FURNACE PRESSURE	Inch w.c.			
10	FURNACE DIAMETER	Ft			
11	FURNACE WIDTH	Ft			
12	FURNACE DEPTH	Ft			
13	FURNACE DEPTH PASS	Ft			
14	FRONT WALL CONSTRUCTION	% REFRACTORY or TUBES & LAYS			
15	FLOOR, REFRACTORY	% REFRACTORY			
16	CEILING / LEFT WALL / RIGHT WALL / REAR WALL, REFRACTORY	% REFRACTORY			
17	INSTALLATION	INDOORS or OUTDOORS			
18	AMBIENT TEMPERATURE	°F			
19	SITE ELEVATION	FEET			
BURNER DATA					
20	BURNER PROJECT CLASSIFICATION	NEW or RETROFIT			
21	QUANTITY of BURNERS PER BOILER	1			
22	FIRING CONFIGURATION	FACEDONTAL or UPWARD or DOWNWARD			
23	TYPE OF BURNER - SIZE	R80			
24	FURNACE FRONT WALL DEPTH	In			
25	BURNER ARRANGEMENT (COLUMNS x ROWS)	1 x 1			
26	VERTICAL BURNER PITCH, CENTERLINE TO TUBE CENTERLINE	Ft			
27	HORIZONTAL BURNER PITCH, CENTERLINE TO CENTERLINE	Ft			
28	BOTTOM BURNER TO FLOOR	Ft			
29	BURNER THROAT SIZE	In			
30	BURNER MINIMUM TUBE NEST ID	In			
IGNITER DATA					
31	MODEL	Stabette MM			
32	IGNITION METHOD	SmartSpark			
33	IGNITER CLASS	NPP4			
34	FLAME ROD	YES or NO			
35	IGNITER FUEL	NG			
36	FUEL PRESSURE @IGNITER	PSIG			
37	IGNITER HEAT RELEASE	MBTU/hr			
OPERATING DATA					
38	BURNER FUEL TYPE	GAS or OIL or GAS & OIL			
39	BOILER HEAT RELEASE, 100% MCR	MMBtu/hr			
40	DESIGN HEAT RELEASE per BURNER	MMBtu/hr			
41	DESIGN HEAT RELEASE per BURNER	MMBtu/hr			
42	TOTAL TURNDOWN	3			
43	EXCESS AIR at DESIGN HEAT RELEASE	%			
44	COMBUSTION AIR TEMPERATURE	°F			
45	COMBUSTION AIR FLOW, TOTAL	SCFM			
46	FLUE GAS RECIRCULATION	%			
47	FLUE GAS RECIRCULATION FLOW, TOTAL	SCFM			
48	BURNER DROP PRESSURE at DESIGN HEAT RELEASE	Inch w.c.			
49	STEAM / WATER INJECTION RATE	Gals. / hr			
50	STEAM / WATER INJECTION TEMPERATURE	°F			
51	ESTIMATED FLAME LENGTH at DESIGN HEAT RELEASE	Ft			
52	ESTIMATED FLAME DIAMETER at DESIGN HEAT RELEASE	Ft			

BURNER SPECIFICATION			JOHN ZINK HAMWORTHY COMBUSTION		JOHN ZINK QUOTE NUMBER: 281912-121992		
ADAPTED FROM API STANDARD 560 and API RECOMMENDED PRACTICE 535			REVISION	DATE	SHEET 2 of 4		
GAS FUEL CHARACTERISTICS							
52	FUEL GAS DESIGNATION		NR				
53	HEATING VALUE	* (Btu/lb)	998				
54	SPECIFIC GRAVITY (AIR = 1.0)		0.60				
55	FUEL TEMPERATURE at BURNER	*F	60	60	60	60	
56	FUEL PRESSURE at J2 TRAIN INLET	psig	30				
56	FUEL PRESSURE REQUIRED at BURNER	psig	5				
57	FUEL GAS COMPOSITION	Mole% or Molar%	Molar%	Molar%	Molar%	Molar%	
58	Hydrogen (H ₂)						
59	Oxygen (O ₂)						
60	Nitrogen (N ₂)		5.0%				
61	Carbon Monoxide (CO)						
62	Carbon Dioxide (CO ₂)						
63	Methane (CH ₄)		98.0%				
64	Ethane (C ₂ H ₆)		0.0%				
65	Propane (C ₃ H ₈)						
66	n-Butane (C ₄ H ₁₀)						
67	iso-Butane (C ₄ H ₁₀)						
68	n-Pentane (C ₅ H ₁₂)						
69	iso-Pentane (C ₅ H ₁₂)						
70	Neo-Pentane (C ₅ H ₁₂)						
71	n-Hexane (C ₆ H ₁₄)						
72	Heptane (C ₇ H ₁₆)						
73	Octane (C ₈ H ₁₈)						
74	Toluene (C ₇ H ₈)						
75	Ethylene (C ₂ H ₄)						
76	Propene (C ₃ H ₆)						
77	n-Butene (C ₄ H ₈)						
78	iso-Butene (C ₄ H ₈)						
79	n-Pentene (C ₅ H ₁₀)						
80	Benzene (C ₆ H ₆)						
81	Methylbenzene (C ₇ H ₈)						
82	Ethylbenzene (C ₈ H ₁₀)						
83	Acetylene (C ₂ H ₂)						
84	Methylacetylene (C ₃ H ₄)						
85	Butadiene (C ₄ H ₆)						
86	Naphthalene (C ₁₀ H ₈)						
87	Acetone (C ₃ H ₆ O)						
88	Methanol (CH ₃ OH)						
89	Ethanol (C ₂ H ₅ OH)						
90	Ammonia (NH ₃)						
91	Hydrogen Cyanide (HCN)						
92	Hydrogen Sulfide (H ₂ S)						
93	Sulfur Dioxide (SO ₂)						
94	Water (H ₂ O)						
95		TOTAL	100.0%				
LIQUID FUEL CHARACTERISTICS							
96	FUEL OIL DESIGNATION		NR				
97	HEATING VALUE	* (Btu/lb)	8500				
98	VISCOSITY REQUIRED at BURNER		500				
99	FUEL PRESSURE at J2 INTERFACE	psig					
99	FUEL PRESSURE REQUIRED at BURNER	psig					
100	ATOMIZING MEDIUM	AIR or STEAM or MECHANICAL or GAS					
101	ATOMIZING MEDIUM TEMPERATURE at BURNER	*F					
102	ATOMIZING MEDIUM PRESSURE at BURNER	psig					
103	FUEL OIL METALS: Vanadium, Potassium, Sodium, Nickel	ppm					
104	FUEL OIL COMPOSITION	weight %					
105	Carbon (C)						
106	Hydrogen (H)						
107	Oxygen (O)						
108	Nitrogen (N)						
109	Sulfur (S)						
110	Ash						
111	Bottom Sediment & Water	BS&W					
111	Corrosion Carbon Residue	CCR					
112		TOTAL					

BURNER SPECIFICATION		JOHN ZINK HAMWORTHY COMBUSTION		JOHN ZINK QUOTE NUMBER: 201812-121962	
ADAPTED FROM: API STANDARD 560 and API RECOMMENDED PRACTICE 535		REVISION	DATE	SHEET 3 of 4	
MISCELLANEOUS DATA					
113	AREA CLASSIFICATION	SAFE or HAZARDOUS	Non-Hazardous		
114	NEC/IEC RATING		NEC		
115	NEMA RATING		NEMA 4		
116	POWER SUPPLY AVAILABLE, MOTORS	WPh/Hz	460/60		
117	POWER SUPPLY AVAILABLE, CONTROL	WPh/Hz or VDC	120/1/60		
117	INSTRUMENT AIR SUPPLY (CLEAN DRY/OIL-FREE)	psig	50-100		
118	NUMBER OF SCANNERS PER BURNER		3		
112	VALVE TRAIN CONSTRUCTION	GAS / OIL	Gas		
113	PIPING / WELDING SPECIFICATIONS	STANDARD or ASME B31.1/2	JC Standard		
114	COATING AND PAINTING SPECIFICATIONS	STANDARD or CUSTOMER SPEC'S	JC Standard		
115	QUALITY CONTROL	STANDARD or CUSTOMER SPEC'S	JC Standard		
116	CODE GUIDELINES	NEPA 85 or OTHER (specify)	NFPA 85		
117	OPERATING SYSTEM TYPE	NON-RECYCLING or RECYCLING			
118	CONTROLS TYPE	SPST or PP or FULLY-METERED	Fully-Metered		
119	NOISE THRESHOLD SPECIFICATION	dBA @ 3 ft			
EMISSION REQUIREMENTS					
120	NOx	ppm, dry	2		
121	CO	ppm, dry	50		
122	PARTICULATE	lb/MMBtu, HHV			
123	VOC	ppm, dry			
124	SOx	ppm, dry			
124	Emission excludes background emissions present in the ambient air used for combustion				
125	*CORRECTED TO 15% O ₂ (VOLUME, DRY BASIS)				
126	Emission guarantees are extended from thirty three (33) to one hundred (100) percent of design or over 3:1 turndown, provided that the system is operated at steady state conditions, in accordance with the Burner Design Specifications herein.				
127					
128	Notes:				
129	1. The burner(s) will maintain a stable flame with no deleterious impingement over the entire burner turndown range as per the American Boiler Manufacturers Association Definition: "Flame impingement is defined as the condition which exists when the flame resulting from the combustion of the fuel comes into contact with any interior surface of the furnace in such a way as to result in localized incomplete combustion of the fuel and such condition manifests itself in the formation of hard carbonaceous deposits at the contact location. Flame impingement is a condition of firing a fuel which may cause failure under excessive resistance of combustion chamber wall surfaces".				
130	2. Packaged boilers shall be designed and operated with the upward flow of furnace gases forming a gas tight wall water to prevent gas short circuiting of furnace gases to the boiler gas outlet, for performance guarantees to be in effect.				
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**San Joaquin Valley Unified Air Pollution Control District
Supplemental Application Form**



Scrubbers

Please complete one form for each scrubber.

This form must be accompanied by a completed Authority to Construct/Permit to Operate Application form

PERMIT TO BE ISSUED TO: Liberty Packing Co. – The Morning Star Co
LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: 12045 S. Ingomar Grade Rd., Los Banos, CA 93635

PROCESS DESCRIPTION

Process Data	Gas Streams/Processes the Scrubber Serves (include permit number(s) and/or process flow diagrams, if applicable): Serves tomato rotary dryer. Tomato skins and seeds pass through dryer then cyclone and air stream passes through wet scrubber before exhausted to atmosphere. See process flow diagram attached.	
	Maximum Gas Flowrate: <u>51,758</u> acfm	Expected Gas Flowrate: <u>51,758</u> acfm

EQUIPMENT DESCRIPTION

Equipment	Manufacturer: Turner Envirologic	Model:	Serial No.:
Scrubber Type	☐ Dry Scrubber ☒ Wet Scrubber Select Type(s) of Wet Scrubber		
	☐ Packed Bed ☐ Tray/Plate	☒ Orifice ☐ Spray Chamber	☐ Condensation Scrubbing ☐ Venturi
	☐ Other type of scrubber (please provide details):		
	Configuration: ☐ Vertical ☒ Horizontal Flow Type: ☒ Concurrent ☐ Counter-Current		
Dimensions	Height: _____ ft. Diameter: _____ ft. Length: _____ ft.		
Purpose (To Remove)	☐ Odor (type): _____		☐ SO _x : _____
	☐ VOC (type): _____		☐ H ₂ S: _____
	☒ Particulates (type): _____ PM10 _____		☐ Inorganic Fumes and Gases (type): _____
	☐ Other: _____		

EQUIPMENT DESCRIPTION (continued)

Scrubbing Liquid Medium	Scrubbing Liquor		Temperature: _____ °F
	Composition	Weight %	Blow-Down Rate: _____ gpm
			Make-up Rate: _____ gpm
			Recirculation Rate: _____ gpm
			Flow Meter(s) Present? ☐ Yes ☐ No
	Scrubbing Solution: ☐ Once Through ☒ Recirculated		Total Pump H.P.: _____
	pH of Scrubbing Medium (range): _____ - _____		pH Meter Present? ☐ Yes ☐ No
	ORP of Scrubbing Medium (range): _____ - _____ millivolts		ORP Meter Present? ☐ Yes ☐ No

EMISSIONS DATA

Emissions Data	Pollutant	ppmvd	lb/hr	Control Efficiency (%)	Source of Data
	Nitrogen Oxides (NO _x)			See application letter	☒ Manufacturer's Specifications
	Particulate Matter (PM ₁₀)			See application letter	☒ Emissions Source Test
	Carbon Monoxide			See application letter	☐ AP-42; Section: _____
	Volatile Organic Compounds			See application letter	☐ Other: _____
	Sulfur Dioxide (SO ₂)			See application letter	Note: please provide copies of all sources of emissions data
	Hydrogen Sulfide (H ₂ S)			N/A	

HEALTH RISK ASSESSMENT DATA

Operating Hours	Maximum Operating Schedule: _____ 24 hours per day, and _____ 4,320 hours per year		
Receptor Data	Distance to nearest Residence	1,882 feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest apartment, house, dormitory, etc.
	Direction to nearest Residence	SE	Direction from the stack to the receptor, i.e. Northeast or South.
	Distance to nearest Business	7,282 feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest office building, factory, store, etc.
	Direction to nearest Business	SE	Direction from the stack to the receptor, i.e. North or Southwest.
Stack Parameters	Release Height	20 feet above grade	
	Stack Diameter	30 inches at point of release	
	Rain Cap	☐ Flapper-type ☒ Fixed-type ☐ None ☐ Other: _____	
	Direction of Flow	☒ Vertically Upward ☐ Horizontal ☐ Other: _____ ° from vert. or _____ ° from horiz.	
Exhaust Data	Flowrate: 51,758 acfm	Temperature: 150 °F	Blower H.P.: _____
Facility Location	☐ Urban (area of dense population) ☒ Rural (area of sparse population)		

Attachment III SSPE1 Calculations

SSPE1 Calculations

SOx Emissions

The following steps were followed to determine the maximum SOx emissions under facility-wide NOx SLC.

1. Calculate SOx/NOx ratio such that emissions from the units with high SOx/NOx ratio, i.e. highest SOx emissions compared to NOx emission, should be counted first. In other words, this step is to line-up the units based on SOx/NOx ratio in a descending order to be used for Step 2.

Permit	Description	NO _x	SO _x	PM ₁₀	CO	VOC	SO _x /NO _x
N-1399-4-6 and '5-6	220 MMBtu/hr boilers	8,448	3,010	3,168	19,008	4,435	0.36
N-1399-11-3	94 bhp diesel IC engine	126	0	1	4	6	0.00
N-1399-13-6	180 MMBtu/hr boiler	12,614	4,494	4,730	34,690	3,311	0.36
N-1399-16-4	10 MMBtu/hr tomato roaster and smokin	786	62	299	7,970	299	0.08
N-1399-17-8	263 MMBtu/hr boiler	8,771	3,018	3,177	40,367	2,224	0.34
N-1399-20-1	36 MMBtu/hr boiler	2,523	899	2,397	11,668	1,325	0.36
N-1399-21-0	389 bhp diesel IC engine	102	0	4	19	7	0.00
N-1399-24-3	458.5 MMBtu/hr boiler	8,460	3,624	3,815	49,196	2,543	0.43
N-1399-26-2	Wood bin/wood pallet manufacturing op	0	0	183	0	0	--
N-1399-29-2	Wood working operation	0	0	37	0	0	--
N-1399-30-1	3.5 MW cogen system	2,250	463	1,403	19,990	562	0.21
N-1399-31-1	Gasoline dispensing operation	0	0	0	0	167	--

2. Calculate the total NOx by adding potential emissions of individual units (lined-up based on SOx/NOx ratio in Step 1) without exceeding the facility-wide limit.

Unit	PE (lb/yr)
N-1399-24-3	8,460
N-1399-20-1	2,523
N-1399-13-6	12,614
N-1399-4-6 and '5-6	8,448
Total:	32,045

3. Determine the difference between NOx SLC and Total NOx in Step 2

$$33,705 \text{ lb/yr} - 32,045 \text{ lb/yr} = 1,660 \text{ lb/yr}$$

4. Calculate operational hours for a unit (next in line according to the SOx/NOx ratio in Step 1) by dividing the value in Step 3 (lb-NOx/yr) with the hourly NOx emissions (lb-NOx/hr).

$$(1,660 \text{ lb-NOx/yr}) \div (0.008 \text{ lb-NOx/MMBtu} \times 260 \text{ MMBtu/hr for unit N-1399-17-8}) = 798 \text{ hr/yr}$$

5. Calculate the total SOx emissions by adding the individual SOx potential emissions from the unit(s) including the potential SOx emissions from the unit in Step 4 calculated using EF (lb/MMBtu), operational hours (hr/yr), and the heat input rate to the unit (MMBtu/hr).

Unit	EF (lb/MMBtu)	PE (lb/yr)
N-1399-24-3	--	3,624
N-1399-20-1	--	899
N-1399-13-6	--	4,494
N-1399-4-6 and '5-6	--	3,010
N-1399-17-8	0.00285	591
PE		12,618

The maximum SO_x emissions from this facility after meeting the maximum NO_x limit would be **12,618 lb-SO_x/yr**.

PM₁₀ Emissions

The following steps were followed to determine the maximum PM₁₀ emissions under facility-wide NO_x SLC.

1. Calculate PM₁₀/NO_x ratio such that emissions from the units with high PM₁₀/NO_x ratio, i.e. highest PM₁₀ emissions compared to NO_x emission, should be counted first. In other words, this step is to line-up the units based on PM₁₀/NO_x ratio in a descending order to be used for Step 2.

Permit	Description	NO _x	SO _x	PM ₁₀	CO	VOC	PM ₁₀ /NO _x
N-1399-4-6 and '5-6	220 MMBtu/hr boilers	8,448	3,010	3,168	19,008	4,435	0.38
N-1399-11-3	94 bhp diesel IC engine	126	0	1	4	6	0.01
N-1399-13-6	180 MMBtu/hr boiler	12,614	4,494	4,730	34,690	3,311	0.37
N-1399-16-4	10 MMBtu/hr tomato roaster and smoker	786	62	299	7,970	299	0.38
N-1399-17-8	263 MMBtu/hr boiler	8,771	3,018	3,177	40,367	2,224	0.36
N-1399-20-1	36 MMBtu/hr boiler	2,523	899	2,397	11,668	1,325	0.95
N-1399-21-0	389 bhp diesel IC engine	102	0	4	19	7	0.04
N-1399-24-3	458.5 MMBtu/hr boiler	8,460	3,624	3,815	49,196	2,543	0.45
N-1399-26-2	Wood bin/wood pallet manufacturing operation	0	0	183	0	0	--
N-1399-29-2	Wood working operation	0	0	37	0	0	--
N-1399-30-1	3.5 MW cogen system	2,250	463	1,403	19,990	562	0.62
N-1399-31-1	Gasoline dispensing operation	0	0	0	0	167	--

2. Calculate the total NO_x by adding potential emissions of the units lined-up based on PM₁₀/NO_x ratio in Step 1 without exceeding the facility-wide limit.

Unit	PE (lb/yr)
N-1399-20-1	2,523
N-1399-30-1	2,250
N-1399-24-3	8,460
N-1399-4-6 and '5-6	8,448
N-1399-16-4	786
Total:	22,467

3. Determine the difference between NO_x SLC and Total NO_x in Step 2

$$33,705 \text{ lb/yr} - 22,467 \text{ lb/yr} = 11,238 \text{ lb/yr}$$

- Calculate operational hours for a unit (next in line according to the PM₁₀/NO_x ratio in Step 1) by dividing the value in Step 3 (lb-NO_x/yr) with the hourly NO_x emissions (lb-NO_x/hr).

$$(11,238 \text{ lb-NO}_x/\text{yr}) \div (0.008 \text{ lb-NO}_x/\text{MMBtu} \times 180 \text{ MMBtu/hr for unit N-1399-13-6}) = 7,804 \text{ hr/yr}$$

- Calculate the total PM₁₀ emissions by adding the individual PM₁₀ potential emissions from the unit(s) including the potential PM₁₀ emissions from the unit in Step 4 calculated using EF (lb/MMBtu), operational hours (hr/yr), and the heat input rate to the unit (MMBtu/hr).

Unit	EF (lb/MMBtu)	PE (lb/yr)
N-1399-20-1	--	2,397
N-1399-30-1	--	1,403
N-1399-24-3	--	3,815
N-1399-4-6 and '5-6	--	3,168
N-1399-16-4	--	299
N-1399-13-6	0.003	4,214
PE		15,296

The maximum PM₁₀ emissions from this facility after meeting the maximum NO_x limit would be **15,296 lb/-PM10yr**.

Permit units N-1399-26-2 (Wood bin/wood pallet manufacturing) and N-1399-29-2 (wood working operation) are source of PM10 emissions only; these units may operate while NO_x emitting units are operating. Therefore, PM10 emissions from these permits units must be included in the 15,296 lb/yr (determined above).

$$\text{Total} = 15,296 \text{ lb/yr} + 183 \text{ lb/yr} + 37 \text{ lb/yr} = 15,516 \text{ lb-PM10/yr}$$

CO Emissions

The following steps were followed to determine the maximum CO emissions under facility-wide NO_x SLC.

- Calculate CO/NO_x ratio such that emissions from the units with high CO/NO_x ratio, i.e. highest CO emissions compared to NO_x emission, should be counted first. In other words, this step is to line-up the units based on CO/NO_x ratio in a descending order to be used for Step 2.

Permit	Description	NO _x	SO _x	PM ₁₀	CO	VOC	CO/NO _x
N-1399-4-6 and '5-6	220 MMBtu/hr boilers	8,448	3,010	3,168	19,008	4,435	2.25
N-1399-11-3	94 bhp diesel IC engine	126	0	1	4	6	0.03
N-1399-13-6	180 MMBtu/hr boiler	12,614	4,494	4,730	34,690	3,311	2.75
N-1399-16-4	10 MMBtu/hr tomato roaster and smokin	786	62	299	7,970	299	10.14
N-1399-17-8	263 MMBtu/hr boiler	8,771	3,018	3,177	40,367	2,224	4.60
N-1399-20-1	36 MMBtu/hr boiler	2,523	899	2,397	11,668	1,325	4.62
N-1399-21-0	389 bhp diesel IC engine	102	0	4	19	7	0.19
N-1399-24-3	458.5 MMBtu/hr boiler	8,460	3,624	3,815	49,196	2,543	5.82
N-1399-26-2	Wood bin/wood pallet manufacturing op	0	0	183	0	0	--
N-1399-29-2	Wood working operation	0	0	37	0	0	--
N-1399-30-1	3.5 MW cogen system	2,250	463	1,403	19,990	562	8.88
N-1399-31-1	Gasoline dispensing operation	0	0	0	0	167	--

- Calculate the total NOx by adding potential emissions of the units lined-up based on CO/NOx ratio in Step 1 without exceeding the facility-wide limit.

Unit	PE (lb/yr)
N-1399-16-4	786
N-1399-30-1	2,250
N-1399-24-3	8,460
N-1399-20-1	2,523
N-1399-17-8	8,771
Total:	22,790

- Determine the difference between NOx SLC and Total NOx in Step 2

$$33,705 \text{ lb/yr} - 22,790 \text{ lb/yr} = 10,915 \text{ lb/yr}$$

- Calculate operational hours for a unit (next in line according to the CO/NOx ratio in Step 1) by dividing the value in Step 3 (lb-NOx/yr) with the hourly NOx emissions (lb-NOx/hr).

$$(10,915 \text{ lb-NOx/yr}) \div (0.008 \text{ lb-NOx/MMBtu} \times 180 \text{ MMBtu/hr for unit N-1399-13-6}) = 7,580 \text{ hr/yr}$$

- Calculate the total CO emissions by adding the individual CO potential emissions from the unit(s) including the potential CO emissions from the unit in Step 4 calculated using EF (lb/MMBtu), operational hours (hr/yr), and the heat input rate to the unit (MMBtu/hr).

Facility-Wide Limit:		33,705 lb-NOx/yr
N-1399-13-6	can operate upto a maximum of	7,580 hr/yr
Unit	EF (lb/MMBtu)	PE (lb/yr)
N-1399-16-4	--	7,970
N-1399-30-1	--	19,990
N-1399-24-3	--	49,196
N-1399-20-1	--	11,668
N-1399-17-8	--	40,367
N-1399-13-6	0.022	30,017
PE		159,208

The maximum CO emissions from this facility after meeting the maximum NOx limit would be **159,208 lb-CO/yr**.

VOC Emissions

The following steps were followed to determine the maximum VOC emissions under facility-wide NOx SLC.

1. Calculate VOC/NO_x ratio such that emissions from the units with high VOC/NO_x ratio, i.e. highest SO_x emissions compared to NO_x emission, should be counted first. In other words, this step is to line-up the units based on VOC/NO_x ratio in a descending order to be used for Step 2.

Permit	Description	NO _x	SO _x	PM ₁₀	CO	VOC	VOC/NO _x
N-1399-4-6 and '5-6	220 MMBtu/hr boilers	8,448	3,010	3,168	19,008	4,435	0.52
N-1399-11-3	94 bhp diesel IC engine	126	0	1	4	6	0.05
N-1399-13-6	180 MMBtu/hr boiler	12,614	4,494	4,730	34,690	3,311	0.26
N-1399-16-4	10 MMBtu/hr tomato roaster and smokir	786	62	299	7,970	299	0.38
N-1399-17-8	263 MMBtu/hr boiler	8,771	3,018	3,177	40,367	2,224	0.25
N-1399-20-1	36 MMBtu/hr boiler	2,523	899	2,397	11,668	1,325	0.53
N-1399-21-0	389 bhp diesel IC engine	102	0	4	19	7	0.07
N-1399-24-3	458.5 MMBtu/hr boiler	8,460	3,624	3,815	49,196	2,543	0.30
N-1399-26-2	Wood bin/wood pallet manufacturing op	0	0	183	0	0	--
N-1399-29-2	Wood working operation	0	0	37	0	0	--
N-1399-30-1	3.5 MW cogen system	2,250	463	1,403	19,990	562	0.25
N-1399-31-1	Gasoline dispensing operation	0	0	0	0	167	--

2. Calculate the total NO_x by adding potential emissions of the units lined-up based on VOC/NO_x ratio in Step 1 without exceeding the facility-wide limit.

Unit	PE (lb/yr)
N-1399-20-1	2,523
N-1399-4-6 and '5-6	8,448
N-1399-16-4	786
N-1399-24-3	8,460
N-1399-13-6	12,614
Total:	32,831

3. Determine the difference between NO_x SLC and Total NO_x in Step 2

$$33,705 \text{ lb/yr} - 32,831 \text{ lb/yr} = 874 \text{ lb/yr}$$

4. Calculate operational hours for a unit (next in line according to the VOC/NO_x ratio in Step 1) by dividing the value in Step 3 (lb-NO_x/yr) with the hourly NO_x emissions (lb-NO_x/hr).

$$(874 \text{ lb-NO}_x/\text{yr}) \div (0.009 \text{ lb-NO}_x/\text{MMBtu} \times 51.7 \text{ MMBtu/hr for unit N-1399-30-0}) = 1,878 \text{ hr/yr}$$

5. Calculate the total VOC emissions by adding the individual VOC potential emissions from the unit(s) including the potential VOC emissions from the unit in Step 4 calculated using EF (lb/MMBtu), operational hours (hr/yr), and the heat input rate to the unit (MMBtu/hr).

Unit	EF (lb/MMBtu)	PE (lb/yr)
N-1399-20-1	--	1,325
N-1399-4-6 and '-5-6	--	4,435
N-1399-16-4	--	299
N-1399-24-3	--	2,543
N-1399-13-6	--	3,311
N-1399-30-1	0.0025	243
PE		12,156

The maximum VOC emissions from this facility after meeting the maximum NOx limit would be **12,156 lb-VOC/yr**.

Permit unit N-1399-31-1 (gasoline dispensing operation) is a source of VOC emissions only; this unit may operate while NOx emitting units are operating. Therefore, VOC emissions from this unit must be included in the 12,156 lb/yr (determined above).

Total = 12,156 lb-VOC/yr + 167 lb-VOC/yr = 12,323 lb-VOC/yr

Attachment IV Emissions Profile

 NORTHNT1 PAS - [View Application Emissions: N-1399-34-0]

 File Actions Window

Permit #: N 1399-34 -0		Issued: / /		Last Updated: 06/12/20	
		Implemented: / /		EDGEHILR	
Facility: LIBERTY PACKING CO - THE MORNING ST,					
PM2.5/PM10 %		☐ Use PTO emissions Equipment Prebaselined: ☐ Yes ☐ No			
PM2.5 (lb/Yr)					
		NOX	SOX	PM10	CO
Potential to Emit (lb/Yr):		5098	377	3370	21038
Daily Emis. Limit (lb/Day):		25.9	2.1	18.7	100.3
Quarterly Net Emissions	1:	1274	94	842	5259
Change (lb/Qtr)	2:	1274	94	842	5259
	3:	1275	94	843	5260
	4:	1275	95	843	5260
Check if offsets are triggered but exemption applies		☐	☐	☐	☐
Offset Ratio:					
Quarterly Offset	1:				
Amounts (lb/Qtr)	2:				
	3:				
	4:				
SLC ID (PTE):					
SLC ID (DEL):					

Facility SLC

Exit

Attachment V Baseline Emissions Information

Liberty Packing Company Baseline Actual Emissions

PERMIT UNIT	DESIGNATION	2018 Fuel Flow (MMBTU/YR)	2018 NOx EF (lb/MMBTU)	2019 Fuel Flow (MMBTU/YR)	2019 NOx EF (lb/MMBTU)	EF Source**
N-1399-4-5	Boiler 3	177,409	0.0059	295,461	0.0069	AEMS
-5	Boiler 4	310,250	0.0064	309,821	0.0073	AEMS
-11	Diesel Fire Pump	60 gallons	0.2536***	60 gallons	0.2536***	AEIR
-13	Boiler 2	56,095	0.0062	3,098	0.0065	AEMS
-16	Fire Roaster	5,570	0.0364	10,040	0.0364	AEIR
-17	Boiler 1	345,162	0.0078	158,801	0.0076	PEMS
-20	Boiler 5	38,824	0.0080	31,905	0.0080	PTO
-21	Diesel Generator	7 gallons	0.0994***	7 gallons	0.0994***	AEIR
-24	Boiler 6	663,728	0.0039	614,960	0.0036	PEMS
-30*	Gas Turbine 1	0	0	63,827	0.0063	AEIR
-32	Backup Generator 1	-----		-----		DNO
-33	Backup Generator 2	-----		-----		DNO

* Gas Turbine first started in 2019, therefore 2018 is not averaged.

**AEMS, Alternative Monitoring System

***lbs/gal per required SJVAPCD Reporting

AEIR, SJVAPCD Annual Emission Inventory Report

PEMS, Predictive Emission Monitoring System

DNO, did not operate

NOTES

1. The AEMS (-4, -5, -13) uses baseline values at 5 different loads per the requirements of the EPA protocol. These baseline values are measured annually in the EPA-required AEMS test. With the annual testing, the emissions will at times vary year to year due to changes in several factors, such as transmitter drift, wear of firing components, etc. The fuel flow, NO_x, CO and O₂ are averaged on an hourly basis. Every 5 seconds, the NO_x and CO are determined as a result of the AEMS operation and used in the hourly averaging. Per requirements, these hourly averages are then used to create a daily average and total. Since the emissions factors are load variable, and since the loads on each boiler vary throughout the day, the emissions factors will vary hour to hour and day-to-day.
2. The PEMS (-17, -24) calculates mass emissions hourly based on variations in firing parameters. Every 5 seconds, the NO_x and CO are determined as a result of the PEMS operation and used in the hourly averaging. Per requirements, these hourly averages are then used to create a daily average and total. Since the emissions factors are load variable, and since the loads on each boiler vary throughout the day, the emissions factors will vary hour to hour and day-to-day.
3. Boiler 5 (-20) was not required to have a PEMS or an AEMS due to its small size, therefore the permit limit was used as an emission factor for emission totals/tracking.
4. The diesel engines (-11, -21) are required to be reported annually in gallons on the SJVAPCD annual emission inventory form. The emission factor listed in the attached table is in lbs/gal as determined by the SJVAPCD and supplied in the annual inventory form.
5. The gas turbine (-30) emission factor listed in the attached table is determined by the SJVAPCD and supplied in the annual inventory form.
6. The Fire Roaster (-16) used the emission factor from the annual inventory form supplied by the District.

Attachment VI BACT Analysis

Top Down BACT Analysis for Dryer

For the dryer, BACT is required for NO_x, SO_x, PM₁₀, CO, and VOC.

Top-Down BACT Analysis for NO_x Emissions

a. Step 1 - Identify All Possible Control Technologies

From the current SJVUAPCD BACT Guideline 1.6.13, for Dehydrator Vegetable Continuous Process, identifies BACT for NO_x emissions as follows:

Pollutant	Achieved in Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
NO _x	• Low NO_x Burner with SCR (<0.036 lb/MMBtu) • Low NO_x Burner (0.036 lb/MMBtu) • Natural gas fired burner (<0.06 lb/MMBtu)		

Step 2 - Eliminate Technologically Infeasible Options

None of the above listed technologies are technologically infeasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Low NO_x Burner with SCR < 0.36 lb/MMBtu (Achieved in Practice)
2. Low NO_x Burner 0.36 lb/MMBtu (Achieved in Practice)
3. Natural Gas Fired Burner < 0.06 lb/MMBtu (Achieved in Practice)

Step 4 - Cost Effectiveness Analysis

The applicant has proposed to the highest ranked technologically listed above. A cost effectiveness calculation is not required.

Step 5 - Select BACT

NO_x 0.036 lb/MMBtu; therefore, BACT for NO_x emissions is satisfied.

Top Down BACT Analysis for PM₁₀ Emissions

Current SJVUAPCD BACT Guideline 1.6.13, for Dehydrator Vegetable Continuous Process, identifies BACT for PM10 emissions as follows:

Step 1 - Identify all control technologies

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

Step 2 - Eliminate Technologically Infeasible Options

The baghouse is not technologically feasible for removal of wet tomato solids due to bag plugging.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

- 1) PUC quality natural gas and vents ducted to cyclone (> 90% control efficiency) on product transfer points (Achieved in Practice)

Step 4 - Cost Effectiveness Analysis

The applicant has proposed to the only alternative listed above; therefore a cost effective analysis is not required.

Step 5 - Select BACT

The proposed dryer will combust PUC quality natural gas and vent to cyclone (> 90% control efficiency) on product transfer points, BACT for PM10 emissions is satisfied.

Top Down BACT Analysis for VOC Emissions

Step 1 - Identify all control technologies

Current SJVUAPCD BACT Guideline 1.6.13, for Dehydrator Vegetable Continuous Process, identifies BACT for VOC emissions as follows:

Pollutant	Achieved in Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
VOC	PUC Quality Natural Gas		

Step 2 - Eliminate Technologically Infeasible Options

None of the above listed technologies are technologically infeasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

PUC-quality natural gas

Step 4 - Cost Effectiveness Analysis

The applicant has proposed to the only alternative listed above; therefore a cost effective analysis is not required.

Step 5 - Select BACT

PUC-quality natural gas.

Attachment VII AAQA and HRA

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



To: Richard Edgehill – Permit Services
From: Kyle J Melching – Technical Services
Date: June 12, 2020
Facility Name: LIBERTY PACKING CO - THE MORNING STAR CO
Location: 12045 S INGOMAR GRADE RD, LOS BANOS
Application #(s): N-1399-34-0
Project #: N-1200345

1. Summary

1.1 RMR

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
34	0.00	0.00	0.00	1.30E-08	No	Yes
Project Totals	0.00	0.00	0.00	1.30E-08		
Facility Totals	>1	0.00	0.00	1.73e-08		

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
PM ₁₀				Pass	Pass
PM _{2.5}				Pass	Pass

Notes:

- Results were taken from the attached AAQA Report.
- The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2) unless otherwise noted below.
- Modeled PM₁₀ concentrations were below the District SIL for non-fugitive sources of 5 µg/m³ for the 24-hour average concentration and 1 µg/m³ for the annual concentration.
- Modeled PM_{2.5} concentrations were below the District SIL for non-fugitive sources of 1.2 µg/m³ for the 24-hour average concentration and 0.2 µg/m³ for the annual concentration.
- Tier 2 PM₁₀ and PM_{2.5} analysis were required to establish the maximum hourly PM₁₀/PM_{2.5} for the project. The Federal PM_{2.5} 24 Hour SIL was met when utilizing the modeled concentration 98th percentile or 8th highest score.

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

Unit # 34-0

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. PM10 and PM2.5 emissions may not exceed 18.7 lb/day.

2. Project Description

Technical Services received a request on May 7, 2020 to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for the following:

- Unit -34-0: 35 MMBTU/HR DIRECT-FIRED NATURAL GAS-FIRED TRIPLE PASS ROTARY DRUM DRYER WITH JOHN ZINK RMB NATURAL GAS FIRED BURNER WITH A CYCLONE AND ORIFICE WET SCRUBBER SYSTEM (OR EQUIVALENT)

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 than 1.0. 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 04-08 from Los Banos (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
34	1	Natural Gas	Mmscf	0.035	151.2

Point Source Parameters						
Unit ID	Unit Description	Release Height (m)	Temp. (°K)	Exit Velocity (m/sec)	Stack Diameter (m)	Vertical/ Horizontal/ Capped
34	35 MMBtu/hr NG Dryer	9.75	339	37.20	0.76	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 NO₂ 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:

LIBERTY PACKING CO - THE MORNING STAR CO, N-1200345
Page 4 of 5

Monitoring Stations				
Pollutant	Station Name	County	City	Measurement Year
CO	Tranquillity	Fresno	Tranquillity	2018
NOx	TRACY AIRPORT	San Joaquin	Tracy	2018
PM10	TRACY AIRPORT	San Joaquin	Tracy	2018
PM2.5	Tranquillity	Fresno	Tranquillity	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
34	1	1.26	0.01	4.87	0.78	0.78

Emission Rates (lbs/year)						
Unit ID	Process	NOx	SOx	CO	PM10	PM2.5
34	1	5,098	377	42,661	3,370	3,370

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 2004-2008 from Los Banos (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
34	35 MMBtu/hr NG Dryer	9.75	339	37.20	0.76	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

Attachment VIII

Title V and Statewide Compliance Documents



San Joaquin Valley Air Pollution Control District



TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

☐ ADMINISTRATIVE AMENDMENT ☒ MINOR MODIFICATION ☐ SIGNIFICANT MODIFICATION

COMPANY NAME: Liberty Packing Co. -The Morning Star Co.		FACILITY ID: N-1399
1. Type of Organization: ☐ Corporation ☒ Sole Ownership ☐ Government ☐ Partnership ☐ Utility		
2. Owner's Name: Chris Rufer		
3. Agent to the Owner: Wade Ingram		

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

- ☒ Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- ☒ Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- ☒ Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- ☒ Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true, accurate, and complete.
- ☒ For minor modifications, this application meets the criteria for use of minor permit modification procedures pursuant to District Rule 2520.

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

Wade Ingram
Signature of Responsible Official

3/19/20
Date

Wade Ingram
Name of Responsible Official (please print)

Steam Generating Colleague
Title of Responsible Official (please print)

March 12, 2020

Mr. Nick Peirce
San Joaquin Valley Air Pollution Control District
4800 Enterprise Way
Modesto CA 95356-8718

Subject: Compliance Statement for Liberty Packing Co. – The Morning Star Co. (Fac. ID: N-1399)

Dear Mr. Peirce:

Liberty Packing is providing the following compliance statement for project number N-1200345 to permit a tomato pulper operation, in accordance with Rule 2201, Section 4.15 "Additional Requirements for New Major Sources and Federal Major Modifications."

All major stationary sources in California owned or operated by Liberty Packing, or by any entity controlling, controlled by, or under common control with Liberty Packing, and which are subject to emission limitations, are in compliance or on a schedule for compliance with all applicable emission limitations and standards. These sources include one or more of the following facilities:

Facility #1: The Morning Star Packing Company- Los Banos
13448 Volta Road
Los Banos CA 93635

Facility #2: The Morning Star Packing Company- Williams
2211 Old Highway 99 W
Williams CA 95987

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

Please contact me if you have any questions regarding this certification.

Sincerely,



Wade Ingram, Steam Generating Colleague
Liberty Packing

Attachment IX
Draft ATC

*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1399-34-0

LEGAL OWNER OR OPERATOR: LIBERTY PACKING CO - THE MORNING STAR CO
MAILING ADDRESS: 12045 S INGOMAR GRADE RD
LOS BANOS, CA 93635

LOCATION: 12045 S INGOMAR GRADE RD
LOS BANOS, CA 93635

EQUIPMENT DESCRIPTION:

TOMATO POMACE DRYING OPERATION WITH 35 MMBTU/HR DIRECT-FIRED NATURAL GAS-FIRED TRIPLE PASS ROTARY DRUM DRYER WITH JOHN ZINK RMB NATURAL GAS FIRED BURNER WITH A CYCLONE AND ORIFICE WET SCRUBBER SYSTEM (OR EQUIVALENT)

ISSUANCE DATE: DRAFT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201]
4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2010]
5. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-8400 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 Shelkh, Executive Director, APCCO

Arnaud Marjollet, Director of Permit Services
N-1399-34-0 : Dec 1 2020 : 1:00PM : EDD@SJVAPCD.org : Joint Inspection NOT Required

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

Conditions for N-1399-34-0 (continued)

Page 2 of 4

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. No emission factor and no emissions shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201]
8. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
10. The facility-wide NO_x emissions shall not exceed 33,705 pounds during any one rolling 12 month period. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Compliance with this permit limit shall be demonstrated as the product of monthly actual fuel use and NO_x emission factor from either the permit or source test or predictive emission monitoring system for each unit included in the SLC. Records of the combined annual emissions of NO_x for all permit units included in the SLC shall be kept as a 12 month rolling average and made available for District inspection upon request. [District Rules 1070 and 2201]
12. Dryer shall be fired only on PUC utility natural gas. [District Rules 2201, 4201, 4301, and 4801] Federally Enforceable Through Title V Permit
13. Dryer shall be equipped with operational fuel gauge to John Zink burners. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Scrubber shall be maintained in optimum working condition. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Scrubber shall be operated so as to maintain a sump level between 55% and 70% capacity. The sump level will be continuously recorded electronically with measurements made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All dryer exhaust gas shall be scrubbed in scrubber. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Annual operation of the dryer shall not exceed 4320 hr/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
18. If stack oxygen concentration equals or is less than 19%, scrubbed emissions from the dryer shall not exceed any of the following: NO_x 3.15 ppmv @ 19% O₂; CO 20.0 ppmv at 19% O₂; PM10 0.0312 lb/ton product; and VOC 3 ppmv @ 19% O₂ (as methane). [District Rule 2201, 4202 and 4309] Federally Enforceable Through Title V Permit
19. If stack oxygen concentration exceeds 19%, scrubbed emissions from the dryer shall not exceed any of the following: NO_x 3.15 ppmv (as measured); CO 20.0 ppmv (as measured); PM10 0.0312 lb/ton product; and VOC 3 ppmv (as measured). [District Rule 2201, 4202 and 4309] Federally Enforceable Through Title V Permit
20. PM10 emissions may not exceed 18.7 lb/day. [District Rule 4102]
21. Maximum daily production of the wet tomato pomace shall not exceed 600 ton/day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309] Federally Enforceable Through Title V Permit

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

Conditions for N-1399-34-0 (continued)

Page 3 of 4

23. If either the NO_x or CO concentrations 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 performing the notification and testing required by this condition. [District Rule 4309] Federally Enforceable Through Title V Permit
24. 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] Federally Enforceable Through Title V Permit
25. 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] Federally Enforceable Through Title V Permit
26. Source testing to measure PM₁₀ emissions from the scrubber exhaust gas shall be conducted within 60 days of initial start-up and annually thereafter using EPA Method 201A in combination with EPA Method 202 or EPA Method 202 with EPA Method 5 assuming PM₁₀ = PM. [District Rule 1081 and 2201] Federally Enforceable Through Title V Permit
27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rule 4309] Federally Enforceable Through Title V Permit
28. 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
29. 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
30. All test results for NO_x 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
31. 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] 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. The results of each compliance test shall be submitted to the District within 60 days. [District Rule 1081] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 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

CONDITIONS CONTINUE ON NEXT PAGE

Conditions for N-1399-34-D (continued)

Page 4 of 4

36. Records of monthly average fuel flow to dryer shall be kept for 5 years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
37. Permittee shall maintain daily records of tomato pomace production. [District Rule 2201] Federally Enforceable Through Title V Permit
38. 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

DRAFT

Liberty Packing Co LLC
N-1399, 1200345

Attachment IX

Comments and Responses

Applicant Comment

1. Change the permit limit for VOC from lb/hr to the equivalent 3 ppmv @ 19% O₂ (as methane). The lab results are in units of ppmv @ 19% O₂.
2. Replace “wet” with “dry” in condition #17 PM₁₀ limit as the facility measure the wet tons going into the dryer for compliance with this limit. In addition, the maximum wet tons were used in the application to determine this emission factor limit.
3. Please revise the PM₁₀ source test condition to include EPA Test Methods 201a and 202 for PM₁₀.
4. Remove Condition # 19 of the draft ATC requiring source testing of the dryer at least 80% of the maximum firing rate. This condition was added in error, which was acknowledged by the District.

District Responses to Applicant Comments

District Response to Comment 1

Additional clarity was added to emissions limit condition by creating the two conditions below which are applicable when oxygen is greater than or less than or equal to 19%. This was recommended by District Compliance.

- 18. If stack oxygen concentration equals or is less than 19%, scrubbed emissions from the dryer shall not exceed any of the following: NO_x 3.15 ppmv @ 19% O₂ ; CO 20.0 ppmv at 19% O₂; PM₁₀ 0.0312 lb/ton product; and VOC 3 ppmv @ 19% O₂ (as methane). [District Rule 2201, 4202 and 4309] Y*
- 19. If stack oxygen concentration exceeds 19%, scrubbed emissions from the dryer shall not exceed any of the following: NO_x 3.15 ppmv (as measured); CO 20.0 ppmv (as measured); PM₁₀ 0.0312 lb/ton product; and VOC 3 ppmv (as measured). [District Rule 2201, 4202 and 4309] Y*

District Response to Comment 2

Approved.

District Response to Comment 3

District Compliance recommended the following replacement condition (which was approved by applicant):

5. *Source testing to measure PM₁₀ emissions from the scrubber exhaust gas shall be conducted within 60 days of initial start-up and annually thereafter using EPA Method 201A in combination with EPA Method 202 or EPA Method 202 with EPA Method 5 assuming PM₁₀ = PM. [District Rule 1081 and 2201] Y*

District Response to Comment 4

Approved.

Additional change required by District

To ensure federal enforceability of the NO_x SLC, the following ATC condition has been added:

Compliance with this permit limit shall be demonstrated as the product of monthly actual fuel use and NOx emission factor from either the permit or source test or predictive emission monitoring system for each unit included in the SLC. Records of the combined annual emissions of NOx for all permit units included in the SLC shall be kept as a 12 month rolling average and made available for District inspection upon request. [District Rules 1070 and 2201]