San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING

October 12, 2022

Ms. Kristie Wdowiak
Frito-Lay, Inc.
600 Garner Rd
Modesto, CA 95357

Re: Notice of Preliminary Decision – ATC / Certificate of Conformity
District Facility # N-1919
Project # N-1220099

Dear Ms. Wdowiak:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The proposed project is to install onion fried snack manufacturing line and a corn meal silo.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authorities to Construct with Certificates of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Nick Peirce, Permit Services Manager, at (209) 557-6400.

Thank you for your cooperation in this matter.

Sincerely,

Brian Clements
Director of Permit Services

Enclosures

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

Samir Sheikh
Executive Director/Air Pollution Control Officer

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www.valleyair.org www.healthyairliving.com

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Installation of Onion Fried Snack Manufacturing Line and Corn Meal Silo

Facility Name:	Frito-Lay, Inc.	Date:	October 12, 2022
Mailing Address:	600 Garner Rd Modesto, CA 95357	Engineer:	Jag Kahlon
		Lead Engineer:	James Harader
Contact Person:	M. Scott Weaver, Consultant		
Telephone:	(626) 720-2015		
Fax:	N/A		
E-Mail:	msweaver@ramboll.com		
Application #(s):	N-1919-22-0 and '-23-0		
Project #:	N-1220099		
Deemed Complete:	July 25, 2022		

I. Proposal

N-1919-22-0

Frito-Lay Inc. is requesting an Authority to Construct (ATC) permit to install an Onion Fried Snack (OFS) manufacturing line. This line will consist of three bag dump stations each vented to its own filter system, three use bins each vented to its own filter system, one hopper vented to a filter system, one blender vented to a filter system, ten extruders, a steam-operated closed top vegetable oil fryer vented through an oil mist eliminator (OME) system, one snack chip cooler (ambient air cooler) vented through a high velocity filtration system, and a OFS seasoning system consisting of a dump station and tumbler vented to a Tri-Mer 10-H (or equivalent) orifice water scrubber for particulate matter control. There will also be an electric bench-style oven, which will be used to heat-up dies used in extruders, so that they can be cleaned easily. No emissions are expected from the electric bench style oven; therefore, this unit is not subject to District permit requirements.

N-1919-23-0

Frito-Lay Inc. is requesting an ATC permit to install a corn meal silo equipped with a dust collector system. The pneumatic cornmeal unloader filter/receiver system under permit N-1919-19-0 will be used to fill-up this silo.

Frito-Lay Inc., received their renewed Title V Permit on December 3, 2018. The proposed project is classified as a Title V Minor 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 permits. Frito-Lay, Inc. must apply to administratively amend their Title V permit.

The draft ATCs are included in **Appendix A**.

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 4202	Particulate Matter – Emission Rate (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 600 Garner Rd in Modesto, California. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

Frito-Lay, Inc. is in the business of producing various snack food items including potato chips, corn chips, fried cheese puffs, etc. They are proposing to install an OFS snack manufacturing line, and associated support equipment under this project.

V. Equipment Listing

N-1919-22-0: ONION FRIED SNACK (OFS) MANUFACTURING LINE CONSIST OF THREE SHICK ESTEVE (OR EQUIVALENT MAKE AND MODEL) BAG DUMP STATIONS EACH VENTED TO ITS OWN SHICK ESTEVE IQC (OR EQUIVALENT MAKE AND MODEL) FILTER SYSTEM, THREE USE BINS EACH VENTED TO ITS OWN SHICK ESTEVE IQC (OR EQUIVALENT MAKE AND MODEL) FILTER SYSTEM, ONE HOPPER VENTED TO SHICK ESTEVE IQC (OR EQUIVALENT MAKE AND MODEL), ONE BLENDER VENTED TO A SHICK ESTEVE MQC (OR EQUIVALENT MAKE AND MODEL), TEN EXTRUDERS, A STEAM-OPERATED CLOSED-TOP VEGETABLE OIL FRYER VENTED THROUGH AN OIL MIST ELIMINATOR (OME), A HEAT & CONTROL (OR EQUIVALENT MAKE AND MODEL) AMBIENT AIR COOLER SERVED BY HIGH VELOCITY FILTRATION SYSTEM, AND A SEASONING SYSTEM

CONSISTING OF A DUMP STATION AND TUMBLER VENTED TO A TRI-MER 10-H (OR EQUIVALENT MAKE AND MODEL) ORIFICE WATER SCRUBBER, AND A PERMIT-EXEMPT ELECTRIC OVEN FOR HEATING EXTRUDER DIES

N-1919-23-0: CORN MEAL SILO VENTED THROUGH A SCHICK ESTEVE IQC FILTER SYSTEM; SILO FILLED USING PNEUMATIC CORNMEAL UNLOADER FILTER/RECEIVER SYSTEM UNDER PERMIT N-1919-19-0

VI. Emission Control Technology Evaluation

N-1919-22-0:

Bag dump stations, use bins, a hopper and a blender

Each unit will be served by a bag filter system. Each bag filter system is expected to reduce at least 99% of the particulate matter emissions. To ensure each bag filter system is maintained properly, visible emissions from each bag filter will be limited to 5% opacity per guidance in District Policy SSP-1005 (9/16/98).

Extruders

Per the applicant, the extruders are not expected to generate any particulate matter emissions. Thus, no emission controls are proposed for these units.

Steam-heated vegetable oil fryer equipped with oil mist eliminator (OME)

Frito-Lay has proposed to use an OME system to reduce filterable and condensable particulate matter emissions, as well as, VOC emissions. Per the applicant, the proposed OME system will have a minimum control efficiency of 95% for PM_{10} emissions and 85% for VOC emissions.

Snack chip cooler (ambient air cooler) with high velocity filtration system

The air from the snack chip cooler will be discharged through high efficiency filters. These filters are expected to reduce particulate matter emissions by at least 70%. To ensure filters are maintained properly, visible emissions from the exhaust of the ambient air cooler will be limited to 5% opacity per guidance in District Policy SSP-1005 (9/16/98).

Seasoning system with a Tri-Mer 10-H orifice water scrubber

Per applicant, the Tri-Mer 10-H water scrubber is expected to reduce particulate matter by at least 95%.

N-1919-23-0:

Corn meal will be delivered to the facility via railcars. The cornmeal will then be transferred to the storage silo under this permit using the pneumatic unloading system listed in permit N-1919-19-0.

Cornmeal silos
Cornmeal unload filter/receiver
Silo and unload filter/receiver are equipped with filters capable of reducing at least 99% of particulate matter emissions. To ensure filters are maintained properly, visible emissions from the filter exhaust will be limited to 5% opacity per guidance in District Policy SSP-1005 (9/16/98).

VII. General Calculations

A. Assumptions

- To streamline emission calculations, PM2.5 emissions are assumed to be equal to PM10 emissions. Only if needed to determine if a project is a Federal major modification for PM2.5 will specific PM2.5 emission calculations be performed.
- Other assumptions will be stated as they are made during the evaluation.

B. Emission Factors

N-1919-22-0:
Material handling operations:

Equipment	Material Name	EF lb-PM_{10}/lb-Material	Source
Bag dump station/Use bin	Starch	1.8×10^{-6}	Applicant's proposal
	Buttermilk	3.95×10^{-8}	
	Onion Powder	1.80×10^{-8}	
Hopper	Corn meal	5×10^{-10}	
Hopper/Blender	Mixture of starch, buttermilk, onion powder and corn meal*	**4.34×10^{-8}	

*Corn meal will be dispensed into a hopper from the silo under N-1919-23.
**This EF includes the contribution of emissions from dispensing corn meal into the hopper and will be used to quantify emissions from this equipment.

Extruders
Moist materials are extruded through the extruders; thus, the extruders are not expected to generate any emissions.

Steam-heated vegetable oil fryer equipped with oil mist eliminator (OME)
Emissions from a fryer typically come from two distinct sources: (1) combustion emissions from the vegetable oil heating process, and (2) Frying process.

The proposed fryer will utilize steam to heat-up the vegetable oil. Consequently, there will be zero combustion emissions from the vegetable oil heating process. However, the frying process is expected to emit VOC and PM_{10}.

Frito-Lay, Inc., at 9535 Archibald Ave, in Rancho Cucamonga, California, operating in the South Coast Air Quality Management District (SCAQMD Facility 000346) air basin has a fryer (Funyun fryer D68) that produces a product identical to the product (i.e., onion rings) that will be produced in the proposed fryer. The fryer at the Rancho Cucamonga Frito-Lay facility is equipped with an oil mist eliminator (OME) to capture oil droplets entrained in the fryer exhaust. The OME system is located at the base of the stack where the fryer exhaust discharges into the stack[1].

The Funyun fryer D-68 at the Frito-Lay, Inc.'s Rancho Cucamonga facility was tested for VOC and PM_{10} in April 2008 and October 2010. This fryer's exhaust is routed into the air inlet of the burner (2 MMBtu/hr) that is used to heat up the vegetable oil in the fryer, for combustion of VOCs in the fryer exhaust. The burner chamber is required to maintained at or above 1400°F. Vegetable oil in the fryer is required to be maintained at or below 425°F[2]. As noted above, the proposed operation at Frito-Lay, Inc., Modesto facility, will be using a steam-operated fryer with a configuration significantly different than the fryer operating at the Frito-Lay, Inc. Rancho Cucamonga facility. Therefore, the proposed fryer at the Modesto site is considered a different class of source than the fryer at the Rancho Cucamonga facility.

Uncontrolled emissions from the proposed fryer are estimated using the VOC and PM10 inlet source test results from the FunYun fryer at Frito-Lay, Inc.'s Rancho Cucamonga, California. The inlet source test results are summarized below:

Frito-Lay Funyun Fryer D68 – Frito-Lay, Inc. Rancho Cucamonga, California			
Date	**Actual Prod. Rate (Avg)**	**Uncontrolled**	
		PM_{10}	**VOC**
4/16/08	1.0 ton/hr	0.13 lb/hr	0.5 lb/hr
10/25/10 & 10/26/10	1.2 tons/hr	0.187 lb/hr	1.57 lb/hr
Average	1.1 tons/hr	0.159 lb/hr	1.04 lb/hr
Avg. EF (lb/ton of product produced)	**--**	**0.145 lb/ton**	**0.945 lb/ton**

Frito-Lay, Inc. has proposed to establish emission factors for the proposed fryer using these test results and a 20% margin of compliance over the averaged tested values, and 85% control for VOC and 95% control for PM_{10} emissions due to the OME system. Therefore,

EF (VOC) = 0.945 lb/ton of product produced x 1.2 x (1-0.85)
= 0.170 lb/ton of product produced

[1] Per SCAQMD
[2] Refer to January 1, 2021 – SCAQMD Facility Permit to Operate, Page 18, 36 & 36 for System 12, Fryer D68 conditions

EF (PM_{10}) = 0.145 lb/ton of product produced x 1.2 x (1-0.95)
= 0.0087 lb/ton of product produced

Snack chip cooler (Ambient air cooler) with high velocity filtration system
A similar system was permitted under project N-1203844; thus, same EF is used here.

EF = 0.118 lb-PM/ton of material processed

Seasoning system with a Tri-Mer 10-H orifice water scrubber
The applicant has proposed to use an uncontrolled EF of 0.001 lb-PM/lb-seasoning. This emissions factor was used previously for a similar unit in District project N-1193683. Pursuant to the manufacturer's spec sheet, the proposed scrubber is capable of reducing at least 95% of the particulate matter. Thus, the controlled emission factor is:

EF = (0.001 lb-PM/lb-seasoning)(1-0.95) = 0.00005 lb-PM/lb-seasoning

N-1919-23-0:
Frito-Lay Inc. has proposed to install a corn meal silo. Corn meal will be delivered to the facility via railcars. The cornmeal will then be transferred to storage silos using a pneumatic unloading system under permit N-1919-19-0.

Cornmeal silo
A similar system was permitted in District project N-1203844 using an emission factor of 0.00025 lb-PM/ton of material. This factor will be used for the proposed cornmeal silo.

EF = 0.00025 lb-PM/ton of material

Cornmeal unload filter/receiver
The emissions from this unit are already included in permit N-1919-19-0. Therefore, a separate EF is not listed here.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since all of the emission units under this project are new emissions units, PE1 = 0 for all pollutants.

2. Post-Project Potential to Emit (PE2)

N-1919-22-0:
Material handling operations

PE2 (lb/hr) = EF (lb-PM10/lb-material) x Process Rate (lb-material/hr)
PE2 (lb/day) = EF (lb-PM10/lb-material) x Process Rate (lb-material/hr) x 24 hr/day

Equipment	EF lb-PM_{10}/lb-Material	Process Rate (lb/hr)	PE2 lb/hr	PE2 lb/day
Starch bag dump station	1.80E-06	4,200	0.008	0.2
Buttermilk bag dump station	3.95E-08	4,200	0.000	0.0
Onion power bag dump station	1.80E-08	4,200	0.000	0.0
Starch use bin	1.80E-06	4,200	0.008	0.2
Buttermilk use bin	3.95E-08	4,200	0.000	0.0
Onion power use bin	1.80E-08	4,200	0.000	0.0
Hopper	4.34E-08	22,500	0.001	0.0
Blender	4.34E-08	4,100	0.000	0.0
		Total:	0.017	0.4

Using worst-case operating scenario of 365 days/yr, the annual emissions would be:

PE2 = 0.4 lb-PM_{10}/day x 365 days/yr
= 146 lb-PM_{10}/yr

Extruders
PE2 = 0

Steam-heated vegetable oil fryer equipped with oil mist eliminator (OME)
VOC:
PE2 = 0.170 lb-VOC/ton of product produced x 5,404 lb/hr x 1 ton/2,000 lb
= 0.46 lb-VOC/hr

PE2 = 0.170 lb-VOC/ton of product produced x 5,404 lb/hr x 1 ton/2,000 lb x 24 hr/day
= 11.0 lb-VOC/day

Using worst-case operating scenario of 365 days/yr, the annual emissions would be:

PE2 = 11.0 lb-VOC/day x 365 days/yr
= 4,015 lb-VOC/yr

PM_{10}:
PE2 = 0.0087 lb-PM_{10}/ton of product produced x 5,404 lb/hr x 1 ton/2,000 lb
= 0.02 lb-PM_{10}/hr

PE2 = 0.0087 lb-PM_{10}/ton of product produced x 5,404 lb/hr x 1 ton/2,000 lb x 24 hr/day
= 0.6 lb-PM_{10}/day

Using worst-case operating scenario of 365 days/yr, the annual emissions would be:

PE2 = 0.6 lb-PM_{10}/day x 365 days/yr
= 219 lb-PM_{10}/yr

Snack chip cooler (Ambient air cooler) with high velocity filtration system
PE2 = 0.118 lb-PM/ton of material processed x 5,404 lb/hr x 1 ton/2,000 lb x 1 lb-PM_{10}/lb-PM
= 0.32 lb-PM_{10}/hr

PE2 = 0.118 lb-PM/ton of material processed x 5,404 lb/hr x 1 ton/2,000 lb x 24 hr/day x 1 lb-PM_{10}/lb-PM
= 7.7 lb-PM_{10}/day

Using worst-case operating scenario of 365 days/yr, the annual emission would be:

PE2 = 7.7 lb-PM_{10}/day x 365 days/yr
= 2,811 lb-PM_{10}/yr

Seasoning system with a Tri-Mer 10-H orifice water scrubber
PE2 = 0.00005 lb-PM/lb-seasoning x 2,763 lb-seasoning/hr x 1 lb-PM10/lb-PM
= 0.14 lb-PM_{10}/hr

PE2 = 0.00005 lb-PM/lb-seasoning x 2,763 lb-seasoning/hr x 24 hr/day x 1 lb-PM10/lb-PM
= 3.3 lb-PM_{10}/day

Using worst-case operating scenario of 365 days/yr, the annual emission would be:

PE2 = 3.3 lb-PM_{10}/day x 365 days/yr
= 1,205 lb-PM_{10}/yr

Summary:
Daily Emissions:

Pollutant	Material handling operations PE2 lb/day	Extruders PE2 lb/day	Fryer PE2 lb/day	Cooler PE2 lb/day	Seasoner PE2 lb/day	Total PE2 lb/day
NOx	0	0	0	0	0	0
SOx	0	0	0	0	0	0
*PM_{10}	0.4	0	0.6	7.7	3.3	12.0
CO	0	0	0	0	0	0
VOC	0	0	11.0	0	0	11.0

Annual Emissions:

Pollutant	Material handling operations PE2 lb/yr	Extruders PE2 lb/yr	Fryer PE2 lb/yr	Cooler PE2 lb/yr	Seasoner PE2 lb/yr	Total PE2 lb/yr
NOx	0	0	0	0	0	0
SOx	0	0	0	0	0	0
*PM_{10}	146	0	219	2,811	1,205	4,381
CO	0	0	0	0	0	0
VOC	0	0	4,015	0	0	4,015

*All PM emissions are conservatively assumed to be PM_{10} emissions.

N-1919-23-0:
Cornmeal unload filter/receiver
PE2 is counted under permit N-1919-19-0.

Cornmeal silo
PE2 (lb/hr) = 0.00025 lb-PM/ton of material x 13,500 lb/hr x ton/2,000 lb
= 0.002 lb-PM/hr

PE2 (lb/day) = 0.00025 lb-PM/ton of material x 13,500 lb/hr x ton/2,000 lb x 24 hr/day
= 0.0 lb-PM/day (0 lb-PM/yr)

Summary:
Daily:

Pollutant	Corn meal unload filter/receiver PE2 lb/day	Corn meal silo PE2 lb/day	Total PE2 lb/day
*PM_{10}	0	0	0

*All PM emissions estimated above are conservatively assumed to be PM10 emissions.

Annual:

Pollutant	Corn meal unload filter/receiver PE2 lb/yr	Corn meal silo PE2 lb/yr	Total PE2 lb/yr
*PM_{10}	0	0	0

*All PM emissions estimated above are conservatively assumed to be PM10 emissions.

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

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

The following table is taken from the application review prepared under project N-1203844.

SSPE1 (lb/year)					
Permit Unit	**NO_X**	**SO_X**	**PM_{10}**	**CO**	**VOC**
N-1919-1-11	5,742	168	7,171	26,350	1,502
N-1919-2-12	10,012	293	5,371	45,948	1,686
N-1919-3-9	0	0	16,571	0	621
N-1919-4-7	0	0	3,249	0	292
N-1919-5-3	0	0	2,701	0	0
N-1919-6-10	3,541	1,261	1,371	32,680	2,787
N-1919-7-8	0	0	3,614	0	1,606
N-1919-8-7	0	0	3,137	0	1,489
N-1919-11-4	0	0	0	0	0
N-1919-12-3	0	0	0	0	0
N-1919-13-4	0	0	183	0	0
N-1919-14-3	0	0	0	0	0
N-1919-16-3	4,314	1,397	3,329	32,412	2,409
N-1919-18-0	0	0	3,722	0	2,010
N-1919-19-0	0	0	80	0	0
N-1919-20-0	2,681	212	4,516	2,606	2,531
N-1919-21-0	0	0	225	0	0
ERC	0	0	0	0	0
SSPE1	**26,290**	**3,331**	**55,240**	**139,996**	**16,933**

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

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

SSPE2 (lb/year)					
Permit Unit	**NO_X**	**SO_X**	**PM_{10}**	**CO**	**VOC**
N-1919-1-11	5,742	168	7,171	26,350	1,502
N-1919-2-12	10,012	293	5,371	45,948	1,686
N-1919-3-9	0	0	16,571	0	621
N-1919-4-7	0	0	3,249	0	292
N-1919-5-3	0	0	2,701	0	0
N-1919-6-10	3,541	1,261	1,371	32,680	2,787
N-1919-7-8	0	0	3,614	0	1,606
N-1919-8-7	0	0	3,137	0	1,489
N-1919-11-4	0	0	0	0	0
N-1919-12-3	0	0	0	0	0
N-1919-13-4	0	0	183	0	0
N-1919-14-3	0	0	0	0	0
N-1919-16-3	4,314	1,397	3,329	32,412	2,409
N-1919-18-0	0	0	3,722	0	2,010
N-1919-19-0	0	0	80	0	0
N-1919-20-0	2,681	212	4,516	2,606	2,531
N-1919-21-0	0	0	225	0	0
N-1919-22-0	**0**	**0**	**4,381**	**0**	**4,015**
N-1919-23-0	**0**	**0**	**0**	**0**	**0**
ERC	0	0	0	0	0
SSPE2	**26,290**	**3,331**	**59,621**	**139,996**	**20,948**

5. Major Source Determination

Rule 2201 Major Source Determination:

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

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

Rule 2201 Major Source Determination (lb/year)						
	NO_X	SO_X	PM_{10}	*$PM_{2.5}$	CO	VOC
SSPE1	26,290	3,331	55,240	55,240	139,996	16,933
SSPE2	26,290	3,331	59,621	59,621	139,996	20,948
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	Yes	No	No	No	No	Yes

*$PM_{2.5}$ assumed to be equal to PM_{10}

As seen in the table above, the facility is an existing Major Source for NOx emissions and will remain a Major Source for NOx after this project. The facility surpassed the Major Source threshold for VOC due to this project, and will also be a Major Source for VOC upon implementing the ATCs under 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	13.1	8.5	1.7	70.0	27.6	27.6
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source?	No	No	No	No	No	No

As seen in the table 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.

N-1919-22-0 and '-23-0:
Since the proposed emissions units are new emissions units, BE is zero for all pollutants.

7. SB 288 Major Modification

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

Per section VII.C.5 above, this facility is an existing major source for NOx and is becoming a Major Source for VOC emissions due to this project. Thus, the project's PE2 for NOx and VOC is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if further SB 288 Major Modification calculations are required.

SB 288 Major Modification Thresholds			
Pollutant	**Project PE2 (lb/year)**	**Threshold (lb/year)**	**SB 288 Major Modification Calculation Required?**
NOx	0	50,000	No
VOC	4,015	50,000	No

As seen in the table above, none of the SB 288 Major Modification Thresholds are surpassed with this project. Therefore, this project does not constitute an SB 288 Major Modification and no further discussion is required.

8. Federal Major Modification / New Major Source

Federal Major Modification

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

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

NOx:
As seen in section VII.C.5 above, Frito-Lay, Inc. is an existing Major Source for NOx emissions. Therefore, the proposed project requires evaluation to determine whether or not this project triggers a Federal Major Modification.

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
This project's combined total NO_x emissions increase is summarized in the following table and 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*	0	0	No

*The emissions units associated with the proposed project do not result in any NO_x emission increases.

VOC
As seen in section VII.C.5 above, Frito-Lay, Inc. is an existing a Major Source for VOC but the facility's post-project VOC emissions will increase above the Major Source Threshold as a result of this project. Since the facility is not an existing Major Source for VOC emissions, this permitting action cannot trigger a Federal Major Modification.

New Major Source

NOx:
This facility is an existing Major Source for NOx emissions. Therefore, no further analysis is required.

VOC:
Since facility's post-project VOC emissions will increase above the Major Source Threshold, the project VOC emissions increase will be compared to the Federal Major Source threshold for VOC to determine whether the project emissions increase itself results in a New Major Source according to 40 CFR 51.165 a(1)(iv)(A)(3).

Project Emissions Increase = 4,015 lb-VOC/yr

The project VOC emissions increase is compared to the Federal Major Source threshold for VOC in the table below.

New Major Source Determination			
Pollutant	**Project Emission Increase (lb/year)**	**Threshold (lb/year)**	**New Major Source?**
VOC	4,015	20,000	No

As seen in the table above, the project's VOC emissions increase does not exceed the Major Source threshold. Therefore, this permitting action will not be evaluated as if this project itself were a New Major Source, so no further discussion is required.

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

I. Project Emissions Increase - New Major Source Determination

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

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). 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	0.0	2.0	0.0	0.0	2.2	2.2
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	No	No	No	No	No	No

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. Detailed QNEC calculations are included in **Appendix E**.

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

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

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

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

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

N-1919-22-0:

Material handling operations

Per section VII.C.2 above, PE2 is not greater than 2 lb/day for PM_{10} emissions for any material handling operation; therefore, BACT is not triggered.

Extruders

Per section VII.C above, PE2 is not greater than 2 lb/day for any pollutant; therefore, BACT is not triggered.

Steam-heated vegetable oil fryer equipped with oil mist eliminator (OME)

PM_{10}:

Per section VII.C.2 above, PE2 is not greater than 2 lb/day for PM_{10} emissions; therefore, BACT is not triggered for PM_{10} emissions from this operation.

VOC:

Per section VII.C.2 above, PE2 is greater than 2 lb/day for VOC emissions; therefore, BACT is triggered for VOC emissions from this operation.

Snack chip cooler (Ambient air cooler) with high velocity filtration system

Per section VII.C.2 above, PE2 is greater than 2 lb/day for PM_{10} emissions; therefore, BACT is triggered for PM_{10} emissions from this operation.

Seasoning system with a Tri-Mer 10-H orifice water scrubber

Per section VII.C.2 above, PE2 is greater than 2 lb/day for PM_{10} emissions; therefore, BACT is triggered for PM_{10} emissions from this operation.

N-1919-23-0:

Cornmeal silos:

Per section VII.C.2 above, PE2 is not greater than 2 lb/day for PM_{10} emissions; therefore, BACT is not triggered for PM_{10} emissions from this operation.

Cornmeal unload filter/receiver:

As stated previously, silo will be filled using cornmeal unload filter/receiver under permit N-1919-19 and no modifications are being made to that permit. Furthermore,BACT for this unit was evaluated under project N-1203844. Therefore, no further discussion is required.

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

None of the emissions units are being relocated from one stationary source to another; therefore BACT is not triggered.

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

None of the existing units are being modified in 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 does not constitute an SB 288 or Federal Major Modification for any pollutant. Therefore BACT is not triggered for any pollutant.

2. BACT Guideline

N-1919-22-0:
Steam-heated vegetable oil fryer equipped with oil mist eliminator (OME)
As discussed above, BACT is triggered for VOC emissions.

BACT guideline 1.6.3 for a snack chip fryer with an indirect heat transfer system will be used to address the BACT requirements for VOC emissions (refer to **Appendix B** of this document).

Snack chip cooler (Ambient air cooler) with high velocity filtration system
As discussed above, BACT is triggered for PM_{10} emissions.

BACT guideline 5.5.2 for tortilla chip line ambient air cooler has been rescinded since 2020. The guideline has been updated as part of this project. Refer to **Appendix C** of this document.

Seasoning system with a Tri-Mer 10-H orifice water scrubber
As discussed above, BACT is triggered for PM_{10} emissions.

The District BACT clearinghouse does not have a guideline to address BACT requirements for this operation. A new BACT guideline is developed for this operation. Refer to **Appendix C** of this document.

N-1919-23-0:
None of the units under this permit triggered BACT. Therefore, no BACT guideline is listed here.

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 **Appendix C**), BACT has been satisfied with the following:

N-1919-22-0:
Steam-heated vegetable oil fryer equipped with oil mist eliminator (OME)
Per BACT analysis in **Appendix C** of this document, the most stringent VOC control option is to meet a combined VOC/PM10 emission standard of 85% control. The applicant has proposed to achieve 85% control for VOC and 95% control for PM emissions with the use of oil mist eliminator system (OME) system. Thus, BACT requirements for VOC are satisfied.

Snack chip cooler (Ambient air cooler) with high velocity filtration system
Per BACT analysis in **Appendix C** of this document, use of properly engineered high velocity filtration system with oil baffle type filters, or equivalent filter system capable of reducing at least 70% of particulate matter emission is required for the proposed snack chip cooler. The applicant has proposed to install the filter system that will achieve this standard; therefore, BACT requirements are satisfied.

Seasoning system with a Tri-Mer 10-H orifice water scrubber
Per BACT analysis in **Appendix C** of this document, use of a scrubber system capable of reducing at least 95% of particulate matter emissions is required for the proposed seasoning system. The applicant has proposed to discharge the exhaust through the water scrubber system capable of achieving at least 95% reduction of particulate matter emissions; therefore, BACT requirements are satisfied.

N-1919-23-0:
None of the units under this permit triggered BACT. Therefore, no BACT analysis is required.

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	26,290	3,331	59,621	139,996	20,948
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets Triggered?	Yes	No	Yes	No	Yes

2. Quantity of District Offsets Required

As seen in the table above, District offsets are triggered for NOx, PM_{10} and VOC emissions under Rule 2201. Therefore, offsets analysis is required for these pollutants.

District Offset Quantities Calculation

2.1 NOx

As demonstrated above, the facility's SSPE2 for NOx is greater than the offset threshold. However, the units in this proposal do not emit NOx emissions. Thus, offset calculations are not required for NOx emissions.

2.2 PM10

As demonstrated above, the facility's SSPE2 for PM10 is greater than the offset threshold. Therefore, offset calculations are required.

The quantity of offsets in pounds per year for PM10 is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

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

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

BE = PE1 for:

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

otherwise,

BE = HAE

This project involves two permit units N-1919-22-0 and '-23-0. Only permit N-1919-22-0 results in an increase in PM_{10} emission above zero pounds. As stated in Section VII.C.6 above, BE is zero for emission units under this project, as all units are new emission units.

There are no increases in cargo carrier emissions. Therefore offsets can be determined as follows:

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

PE2 (PM10) = 4,381 lb/year
BE (PM10) = 0 lb/year
ICCE = 0 lb/year
DOR = 1.5 for the emission reductions that were banked 15-miles or more from Frito-Lay, Modesto site

Offsets Required (lb/year) = ([4,381 – 0] + 0) x 1.5
= 6,572 lb-PM10/yr

The quarterly emissions to be offset is as follows:

Quarterly offsets required (lb/qtr) = (6,572 lb-PM10/year) ÷ (4 quarters/year)
= 1,643 lb-PM10/qtr

Proposed Rule 2201 Offset Permit Conditions

The following permit conditions will be added to the Authority to Construct permit N-1919-22-0:

- Prior to operating equipment under Authority to Construct permit N-1919-22-0, permittee shall surrender PM10 emission reduction credits for the following quantity of emissions: 1st quarter – 1,643 lb, 2nd quarter – 1,643 lb, 3rd quarter – 1,643 lb, and fourth quarter – 1,643 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201]

- ERC Certificate Number S-5255-4 (or a certificate split from this certificate) shall be used to supply the required PM10 offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct permits shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct permit. [District Rule 2201]

The PM_{10} emissions from N-1919-23-0 is zero; therefore, no permit conditions are required on N-1919-23-0 to enforce offset requirements for PM_{10}.

2.3 VOC

As seen in section VII.C.5 above, for VOC, the SSPE1 is below the offset threshold while the SSPE2 is greater than the offset thresholds for that pollutant. Therefore offset calculations will be required for this project.

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

Offsets Required (lb/year) = [(SSPE2 – ROT + ICCE) x DOR]

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

This project involves two permit units N-1919-22-0 and '-23-0. Only permit N-1919-22-0 results in an increase in VOC emissions increase. There are no increases in cargo carrier emissions. Therefore offsets can be determined as follows:

Offsets Required (lb/year) = ([SSPE2 – ROT] + ICCE) x DOR

SSPE2 (VOC) = 20,948 lb/year
ROT (VOC) = 20,000 lb/year
ICCE = 0 lb/year
DOR = 1.5 for the emission reductions that were banked 15-miles or more from Frito-Lay, Modesto site

Offsets Required (lb/year) = ([20,948 – 20,000] + 0) x 1.5
= 1,422 lb-VOC/yr

The quarterly emissions to be offset is as follows:

Quarterly offsets required (lb/qtr) = (1,422 lb-VOC/year) ÷ (4 quarters/year)
= 355.5 lb-VOC/qtr

As demonstrated in the calculation above, the quarterly amount of offsets required for this project, when evenly distributed to each quarter, results in fractional pounds of offsets being required each quarter. Since offsets are required to be withdrawn as whole pounds, the quarterly amounts of offsets need to be adjusted to ensure the quarterly values sum to the total annual amount of offsets required.

To adjust the quarterly amount of offsets required, the fractional amount of offsets required in each quarter will be summed and redistributed to each quarter based on the number of days in each quarter. The redistribution is based on the Quarter 1 having the fewest days and the Quarters 3 and 4 having the most days. The redistribution method is summarized in the following table:

Redistribution of Required Quarterly Offsets (where X is the annual amount of offsets, and X ÷ 4 = Y.z)				
Value of z	**Quarter 1**	**Quarter 2**	**Quarter 3**	**Quarter 4**
0.0	Y	Y	Y	Y
0.25	Y	Y	Y	Y+1
0.5	Y	Y	Y+1	Y+1
0.75	Y	Y+1	Y+1	Y+1

Therefore the appropriate quarterly emissions to be offset are as follows:

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	**Total Annual**
355 lb	355 lb	356 lb	356 lb	**1,422 lb**

Proposed Rule 2201 Offset Permit Conditions
The following permit conditions will be added to the Authority to Construct permit N-1919-22-0:

- Prior to operating equipment under Authority to Construct permit N-1919-22-0, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter – 355 lb, 2nd quarter – 355 lb, 3rd quarter – 356 lb, and fourth quarter – 356 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201]

- ERC Certificate Numbers S-3411-1 and/or S-3426-1 (or a certificate split from these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct permits shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct permit. [District Rule 2201]

The VOC emissions from N-1919-23-0 is zero; therefore, no permit conditions are required on N-1919-23-0 to enforce the VOC offset requirements.

3. ERC Withdrawal Calculations

The applicant must identify the ERC Certificate(s) to be used to offset the increase of VOC and PM10 emissions for the project. As indicated in previous section, the applicant has identified the ERC certificates to mitigate the increases of VOC and PM10 emissions associated with this project. See **Appendix F** for detailed ERC Withdrawal Calculations.

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

Per section VII.C.7 and VII.C.8 above, this facility is not a new Major Source for VOC emissions. Further, the project is not an SB-288 or Federal Major Modification. Therefore, public noticing is not required for this project.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in section VII.C.2 above, this project does not include a new emissions unit which has daily emissions greater than 100 lb/day for any pollutant, therefore public noticing for PE > 100 lb/day purposes is not required.

c. Offset Threshold

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

Offset Thresholds				
Pollutant	**SSPE1 (lb/year)**	**SSPE2 (lb/year)**	**Offset Threshold**	**Public Notice Required?**
NO_X	26,290	26,290	20,000 lb/year	No
SO_X	3,331	3,331	54,750 lb/year	No
PM_{10}	55,240	59,621	29,200 lb/year	No
CO	139,996	139,996	200,000 lb/year	No
VOC	16,933	20,948	20,000 lb/year	Yes

As seen in the table above, VOC emissions surpass from below Offset Threshold to above Offset Threshold with this project; therefore public noticing is required for offset purposes.

d. SSIPE > 20,000 lb/year

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

SSIPE Public Notice Thresholds					
Pollutant	**SSPE2 (lb/year)**	**SSPE1 (lb/year)**	**SSIPE (lb/year)**	**SSIPE Public Notice Threshold**	**Public Notice Required?**
NO_x	26,290	26,290	0	20,000 lb/year	No
SO_x	3,331	3,331	0	20,000 lb/year	No
PM_{10}	59,621	55,240	4,381	20,000 lb/year	No
CO	139,996	139,996	0	20,000 lb/year	No
VOC	20,948	16,933	4,015	20,000 lb/year	No

As seen in the table above, the SSIPE for each pollutant is less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

e. Title V Significant Permit Modification

As discussed under Rule 2520 below, this project does not constitute a Title V significant modification. Therefore, public noticing for Title V significant modifications is not required for this project.

2. Public Notice Action

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

D. Daily Emission Limits (DELs)

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

***Proposed Rule 2201 (DEL) Conditions*:**

N-1919-22-0

Material handling operations

- The combined total PM10 emissions from material handling operations utilizing three bag dump stations, three use bins, a hopper, and a blender shall not exceed 0.4 pounds during any one day. [District Rule 2201]

Steam-heated vegetable oil fryer equipped with oil mist eliminator (OME)

- PM10 emissions from the vegetable oil fryer exhaust downstream of the oil mist eliminator system shall not exceed 0.6 pounds during any one day. [District Rule 2201]

- VOC emissions from the vegetable oil fryer exhaust downstream of the oil mist eliminator system shall not exceed 11.0 pounds during any one day. [District Rule 2201]

- Oil mist eliminator system shall reduce at least 85% (by weight) of the uncontrolled VOC emissions and 95% (by weight) of the uncontrolled PM10 emissions from the vegetable oil fryer. [District Rule 2201]

Snack chip cooler (Ambient air cooler) with high velocity filtration system

- PM10 emissions from the ambient air cooler exhaust downstream of high velocity filtration system shall not exceed 7.7 pounds during any one day. [District Rule 2201]

- High velocity filtration system shall reduce uncontrolled PM10 emissions by at least 70% (by weight) from the ambient air cooler. [District Rule 2201]

Seasoning system with a Tri-Mer 10-H orifice water scrubber

- PM10 emissions from the seasoning system exhaust downstream of scrubber system shall not exceed 3.3 pounds during any one day. [District Rule 2201]

- Water scrubber shall reduce uncontrolled PM10 emissions by at least 95% (by weight) from the seasoning system. [District Rule 2201]

N-1919-23-0

Cornmeal silo

- PM10 emissions from the corn meal silo served by dust collection system shall not exceed 0.00025 pounds per ton of material conveyed in the silo. [District Rule 2201]

- No more than 162 tons of material shall be conveyed in the silo during any one day. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

N-1919-22-0

Material handling operations

The bag dump stations, use bins and a blender will be served by its own bag filter system.

Per District Policy APR-1705, Section II, Step 4, non-combustion equipment served by a baghouse or dust collector with expected PM10 emissions of 30 pounds per day or greater must be tested upon initial start-up. Units with PM10 emissions in excess of 70 pounds per day should also be tested on annual basis.

The potential emissions from each unit are below the thresholds in the above paragraph. Therefore, source testing is not required.

Steam-heated vegetable oil fryer equipped with oil mist eliminator (OME)

Frito-Lay, Inc. claims that use of oil mist eliminator (OME) system will reduce VOC and PM_{10} emissions from the fryer exhaust by at least 85% and 95% respectively. This information is used in estimating the potential emissions, and then calculating the emissions offsets for these pollutants. The District will require a one-time third party source test to verify compliance with the proposed VOC and PM_{10} control efficiencies and emissions limits.

Snack chip cooler (Ambient air cooler) with high velocity filtration system

The potential emissions are estimated using emission factor established under project N-1203844. The emission factor was derived using the source test results at Frito-Lay's, Modesto and Bakersfield site for snack chip coolers used in corn tortilla chips manufacturing processes.

As noted in the BACT evaluation for snack chip cooler, PM10 emissions from the snack chip cooler depends on the type of snack being produced. For example, snack chip cooler in corn chip production line (S-2076-8, source test 7/11/20) had 2 times more PM10 emissions than the snack chip cooler in the tortilla chip line (S-2076-5, source test 7/27/20)).

In order to ensure that the proposed PM_{10} emission factor appropriately represents the snack cooler under OFS line, Frito-Lay, Inc. is required to conduct one-time source test to verify the PM_{10} emissions and control efficiency for the proposed snack chip ambient air cooler. Note that the snack chip cooler contributes 64% of the total PM_{10} emissions from this project.

Seasoning system with a Tri-Mer 10-H orifice water scrubber
As discussed above, seasoning system scrubber is proposed to reduce at 95% of the particulate matter emissions. Further, this unit contributes 25% of the total PM_{10} emissions from the project.

In order to ensure that the proposed unit comply the PM_{10} emission limit and proposed control efficiency, source testing is required for the seasoner system.

N-1919-23-0
Cornmeal silos
The potential emissions are estimated using EPA's AP-42 emission factor, which is considered to be a generally accepted emission factor. Thus, source testing is not required.

2. Monitoring

N-1919-22-0
Material handling operations
Visible emissions at the exhaust of each filter system are required to be monitored at least once a year. The monitoring will ensure on-going compliance with visible emission limits. This requirement is consistent with other similar snack food manufacturing lines at this facility.

Steam-heated vegetable oil fryer equipped with oil mist eliminator (OME)
No monitoring is required.

Snack chip cooler (Ambient air cooler) with high velocity filtration system
No monitoring is required.

Seasoning system with a Tri-Mer 10-H orifice water scrubber
Water circulation rate (gallon per minute) is required to be monitored at least once a day.

N-1919-23-0
Cornmeal silo
Visible emissions at the exhaust of filter system is required to be monitored at least once a year. The monitoring will ensure on-going compliance with visible emission limits. This requirement is consistent with other similar snack food manufacturing lines at this facility.

3. Recordkeeping

The owner or operator will be required to maintain sufficient records to demonstrate compliance with the daily emission limits under each permit.

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- The owner or operator shall maintain records sufficient to demonstrate compliance with each emission limit and permit requirement. These records shall contain each calculated emission quantity as well as each process variable used in the respective calculations. [District Rule 2201]

- Records of equipment & associated control device(s) maintenance, inspections, and repair shall be maintained. The records shall include the identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2201]

4. Reporting

Source test report for the fryer under permit N-1919-22 is required to be submitted within 60 days after the test. No other reports are 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 **Appendix D** of this document for the AAQA summary sheet.

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

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

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. The proposed modification is a Minor Modification to the Title V Permit.

In accordance with Rule 2520, Minor Permit Modifications are permit modifications that:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;

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

Additionally, Section 11.4 requires a description of the proposed change, the emissions resulting from the change, any new applicable requirements that will apply if the change occurs, suggested draft permits, compliance certification and an EPA 45-day review period of the proposed permit modification (or a shorter period if EPA has notified the District that EPA will not object to issuance of the permit modification, whichever is first).

As discussed above, the facility has applied for a Certificate of Conformity (COC) and the District will forward to EPA, for a 45-day review period, this application review which includes the proposed modified Title V permit [i.e. proposed ATCs] and the compliance certification form which demonstrates compliance with the minor permit modification requirements in Section 11.4. Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment application.

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 operations proposed under this project.

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

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

Rule 4101 Visible Emissions

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

The following condition will be included in each permit:

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

Compliance is expected with this Rule.

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.

The OFS line includes multiple food-grade material handling operations, steam-heated fryer, seasoner and an ambient air cooler. The cornmeal, starch, buttermilk, and dried seasonings used in the proposed OFS line are all food-grade materials and are not expected to emit any hazardous or toxic compounds. In addition, based on the supporting documentation provided for this ATC project, the District determined the proposed steam-heated fryer is expected to generate de minimis levels of toxics from oxidation of the oil used in the frying process. Therefore, the proposed equipment is not expected to cause any significant health risk to the nearby public.

Compliance is expected with this rule.

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.

N-1919-22-0

Material handling operations

Bag dump stations (each):

Out of starch, buttermilk, and onion powder dump stations, starch bag dump is expected to generate the highest emissions of 0.008 lb-PM/hr. The exhaust flow rate through each filter system is same at 725 scfm. Thus,

PM emissions = 0.008 lb-PM/hr (per section VII.C.2 above)
Exhaust flow rate = 725 scfm (per applicant)

$$\text{PM}\left(\frac{\text{gr}}{\text{dscf}}\right)=\frac{\left(0.008\ \frac{\text{lb-PM}}{\text{hr}}\right)\left(7{,}000\frac{\text{gr-PM}}{\text{lb-PM}}\right)\left(\frac{\text{hr}}{60\ \text{min}}\right)}{\left(725\frac{\text{ft}^3}{\text{min}}\right)}=0.001\ \frac{\text{gr-PM}}{\text{dscf}}<0.1\ \frac{\text{gr-PM}}{\text{dscf}}$$

The grain loading is not in excess of the 0.1 gr-PM/dscf limit from the starch bag dump system with the highest PM emissions. Therefore, it is presumed that none of the other bag dump stations will have grain concentration in excess of 0.1 gr-PM/dscf. Thus, compliance is expected with this rule.

Use bins (each):

Out of starch, buttermilk, and onion powder use bins, starch bag use bin is expected to generate the highest emissions of 0.008 lb-PM/hr. The exhaust flow rate through each filter system is same at 289 scfm. Thus,

PM emissions = 0.008 lb-PM/hr (per section VII.C.2 above)
Exhaust flow rate = 289 scfm (per applicant)

$$\text{PM}\left(\frac{\text{gr}}{\text{dscf}}\right)=\frac{\left(0.008\ \frac{\text{lb-PM}}{\text{hr}}\right)\left(7{,}000\frac{\text{gr-PM}}{\text{lb-PM}}\right)\left(\frac{\text{hr}}{60\ \text{min}}\right)}{\left(289\frac{\text{ft}^3}{\text{min}}\right)}=0.003\ \frac{\text{gr-PM}}{\text{dscf}}<0.1\ \frac{\text{gr-PM}}{\text{dscf}}$$

The grain loading is not in excess of the 0.1 gr-PM/dscf limit from the starch use bin system with the highest PM emissions. Therefore, it is presumed that none of the other bag dump stations will have grain concentration in excess of 0.1 gr-PM/dscf. Thus, compliance is expected with this rule.

Hopper:

PM emissions = 0.001 lb-PM/hr (per section VII.C.2 above)
Exhaust flow rate = 289 scfm (per applicant)

$$\text{PM}\left(\frac{\text{gr}}{\text{dscf}}\right)=\frac{\left(0.001\ \frac{\text{lb-PM}}{\text{hr}}\right)\left(7{,}000\frac{\text{gr-PM}}{\text{lb-PM}}\right)\left(\frac{\text{hr}}{60\ \text{min}}\right)}{\left(168\frac{\text{ft}^3}{\text{min}}\right)}=0.0007\ \frac{\text{gr-PM}}{\text{dscf}}<0.1\ \frac{\text{gr-PM}}{\text{dscf}}$$

Blender:
The potential PM emissions from the blender (each) are zero. Thus, PM concentration will not be in excess of 0.1 gr/dscf, and compliance is expected with this rule.

Steam-heated vegetable oil fryer equipped with oil mist eliminator (OME)
PM emissions = 0.024 lb-PM/hr (per section VII.C.2 above)
Exhaust flow rate = 1,233 scfm (per applicant)

$$\text{PM}\left(\frac{\text{gr}}{\text{dscf}}\right)=\frac{\left(0.024\ \frac{\text{lb-PM}}{\text{hr}}\right)\left(7{,}000\frac{\text{gr-PM}}{\text{lb-PM}}\right)\left(\frac{\text{hr}}{60\ \text{min}}\right)}{\left(1{,}233\frac{\text{ft}^3}{\text{min}}\right)}=0.002\ \frac{\text{gr-PM}}{\text{dscf}}<0.1\ \frac{\text{gr-PM}}{\text{dscf}}$$

Since the grain loading is not in excess of the 0.1 gr-PM/dscf limit, compliance is expected with this rule.

Snack chip cooler (Ambient air cooler) with high velocity filtration system
PM emissions = 0.319 lb-PM/hr (per section VII.C.2 above)
Exhaust flow rate = 7,729 scfm (per applicant)

$$\text{PM}\left(\frac{\text{gr}}{\text{dscf}}\right)=\frac{\left(0.319\ \frac{\text{lb-PM}}{\text{hr}}\right)\left(7{,}000\frac{\text{gr-PM}}{\text{lb-PM}}\right)\left(\frac{\text{hr}}{60\ \text{min}}\right)}{\left(7{,}729\frac{\text{ft}^3}{\text{min}}\right)}=0.005\ \frac{\text{gr-PM}}{\text{dscf}}<0.1\ \frac{\text{gr-PM}}{\text{dscf}}$$

Since the grain loading is not in excess of the 0.1 gr-PM/dscf limit, compliance is expected with this rule.

Seasoning system with a Tri-Mer 10-H orifice water scrubber
PM emissions = 0.138 lb-PM/hr (per section VII.C.2 above)
Exhaust flow rate = 2,200 scfm (per applicant)

$$\text{PM}\left(\frac{\text{gr}}{\text{dscf}}\right)=\frac{\left(0.138\ \frac{\text{lb-PM}}{\text{hr}}\right)\left(7{,}000\frac{\text{gr-PM}}{\text{lb-PM}}\right)\left(\frac{\text{hr}}{60\ \text{min}}\right)}{\left(2{,}200\frac{\text{ft}^3}{\text{min}}\right)}=0.007\ \frac{\text{gr-PM}}{\text{dscf}}<0.1\ \frac{\text{gr-PM}}{\text{dscf}}$$

Since the grain loading for each operation is not exceeding 0.1 gr-PM/dscf limit, each operation is expected to operate in compliance with this rule.

N-1919-23-0
Cornmeal silos
PM emissions = 0.0017 lb-PM/hr (per section VII.C.2 above)
Exhaust flow rate = 421 scfm (per applicant)

$$\text{PM}\left(\frac{\text{gr}}{\text{dscf}}\right)=\frac{\left(0.0017\ \frac{\text{lb-PM}}{\text{hr}}\right)\left(7{,}000\frac{\text{gr-PM}}{\text{lb-PM}}\right)\left(\frac{\text{hr}}{60\ \text{min}}\right)}{\left(421\frac{\text{ft}^3}{\text{min}}\right)}=0.0005\ \frac{\text{gr-PM}}{\text{dscf}}<0.1\ \frac{\text{gr-PM}}{\text{dscf}}$$

Since the grain loading is not in excess of the 0.1 gr-PM/dscf limit, compliance is expected with this rule.

Rule 4202 Particulate Matter – Emission Rate

Section 4.0 of this rule, a person shall not discharge into the atmosphere PM emissions in excess of the maximum allowable limit (E_{Max}), in lb/hr, determined by the following equations:

E_{Max} = 3.59 $P^{0.62}$, for Process weight (P) less than or equal to 30 tons/hr
E_{Max} = 17.31 $P^{0.16}$, for Process weight (P) greater than 30 tons/hr
Material handling operations
Bag dump stations and use bins (each):
Processing Rate: 2.1 tons/hr (per applicant)

E_{Max} = 3.59 (2.1 tons/hr)$^{0.62}$
= 5.7 lb-PM/hr

$E_{Proposed}$ = 0.008 lb-PM/hr (max)

Hopper:
Processing Rate: 11.25 tons/hr (per applicant)

E_{Max} = 3.59 (11.25 tons/hr)$^{0.62}$
= 16.1 lb-PM/hr

$E_{Proposed}$ = 0.001 lb-PM/hr

Blender:
Processing Rate: 2.05 tons/hr (per applicant)

E_{Max} = 3.59 (2.05 tons/hr)$^{0.62}$
= 5.6 lb-PM/hr

$E_{Proposed}$ = 0.000 lb-PM/hr

Steam-heated vegetable oil fryer equipped with oil mist eliminator (OME)
Processing Rate: 2.702 tons/hr (per applicant)

E_{Max} = 3.59 (2.702 tons/hr)$^{0.62}$
= 6.6 lb-PM/hr

$E_{Proposed}$ = 0.024 lb-PM/hr

Snack chip cooler (Ambient air cooler) with high velocity filtration system
Processing Rate: 2.702 tons/hr (per applicant)

E_{Max} = 3.59 (2.702 tons/hr)$^{0.62}$
= 6.6 lb-PM/hr

$E_{Proposed}$ = 0.319 lb-PM/hr

Seasoning system with a Tri-Mer 10-H orifice water scrubber
Processing Rate: 4.084 tons/hr (1.382 tons/hr + 2.702 tons/hr, per applicant)

E_{Max} = 3.59 (4.084 tons/hr)$^{0.62}$
= 8.6 lb-PM/hr

$E_{Proposed}$ = 0.138 lb-PM/hr

For each operation above, the proposed emission rate ($E_{Proposed}$) is less than the maximum allowable emission rate (E_{Max}); therefore, compliance is expected with this rule.

N-1919-23-0:
Corn silo
Processing Rate: 6.75 tons/hr (per applicant)

E_{Max} = 3.59 (6.75 tons/hr)$^{0.62}$
= 11.7 lb-PM/hr

$E_{Proposed}$ = 0.0017 lb-PM/hr

The proposed emission rate ($E_{Proposed}$) is less than the maximum allowable emission rate (E_{Max}); therefore, compliance is expected with this rule.

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.

District CEQA Findings

The County of Stanislaus (County) is the public agency having principal responsibility for approving the project. As such, the County served as the Lead Agency (CCR §15367). In approving the project, the Lead Agency prepared and adopted a Negative Declaration. The Lead agency filed a Notice of Determination, stating that the environmental document was adopted pursuant to the provisions of CEQA and concluding that the project would not have a significant effect on the environment.

Pursuant to CEQA Guidelines §15250, the District is a Responsible Agency for the Project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381). As a Responsible Agency the District complies with CEQA by considering the environmental document prepared by the Lead Agency, and by reaching its own conclusion on whether and how to approve the project (CCR §15096).

The District has considered the Lead Agency's environmental document. Furthermore, the District has conducted an engineering evaluation of the project, this document, which demonstrates that Stationary Source emissions from the project would be below the District's thresholds of significance for criteria pollutants. Thus, the District finds that through a combination of project design elements, compliance with applicable District rules and regulations, and compliance with District air permit conditions, project specific stationary source emissions will have a less than significant impact on air quality. The District does not have authority over any of the other project impacts and has, therefore, determined that no additional findings are required (CEQA Guidelines §15096(h)).

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 N-1919-22-0 and '-23-0 subject to the permit conditions on the attached draft ATCs in **Appendix A**.

X. Billing Information

Annual Permit Fees			
Permit Number	**Fee Schedule**	**Fee Description**	**Annual Fee**
N-1919-22-0	3020-01 D	104.7 hp, total electric motor hp	$379
N-1919-23-0	3020-01	5 hp, electric motor hp	$107

Appendixes
A: Draft ATCs
B: BACT Guidelines
C: BACT Analysis
D: HRA & AAQA Summary
E: Quarterly Net Emissions Change
F: ERC Withdrawal Calculations

Appendix A
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1919-22-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: FRITO-LAY INC
MAILING ADDRESS: 600 GARNER RD
MODESTO, CA 95357-0514

LOCATION: 600 GARNER RD
MODESTO, CA 95357-0514

EQUIPMENT DESCRIPTION:
ONION FRIED SNACK (OFS) MANUFACTURING LINE CONSIST OF THREE SHICK ESTEVE (OR EQUIVALENT MAKE AND MODEL) BAG DUMP STATIONS EACH VENTED TO ITS OWN SHICK ESTEVE IQC (OR EQUIVALENT MAKE AND MODEL) FILTER SYSTEM, THREE USE BINS EACH VENTED TO ITS OWN SHICK ESTEVE IQC (OR EQUIVALENT MAKE AND MODEL) FILTER SYSTEM, ONE HOPPER VENTED TO SHICK ESTEVE IQC (OR EQUIVALENT MAKE AND MODEL), ONE BLENDER VENTED TO A SHICK ESTEVE MQC (OR EQUIVALENT MAKE AND MODEL), TEN EXTRUDERS, A STEAM-OPERATED CLOSED-TOP VEGETABLE OIL FRYER VENTED THROUGH AN OIL MIST ELIMINATOR (OME), A HEAT & CONTROL (OR EQUIVALENT MAKE AND MODEL) AMBIENT AIR COOLER SERVED BY HIGH VELOCITY FILTRATION SYSTEM, AND A SEASONING SYSTEM CONSISTING OF A DUMP STATION AND TUMBLER VENTED TO A TRI-MER 10-H (OR EQUIVALENT MAKE AND MODEL) ORIFICE WATER SCRUBBER, AND A PERMIT-EXEMPT ELECTRIC OVEN FOR HEATING EXTRUDER DIES

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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions from each operation under this permit shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (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

Brian Clements, Director of Permit Services
N-1919-22-0 : Oct 12 2022 4:09PM -- KAHLONJ : Joint Inspection NOT Required

5. 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
6. Visible emissions from each dust collection system serving the bag dump stations, use bins, a hopper, a blender, and an ambient air cooler shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The combined total PM10 emissions from material handling operations utilizing three bag dump stations, three use bins, a hopper, and a blender shall not exceed 0.4 pounds during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. PM10 emissions from the vegetable oil fryer exhaust downstream of the oil mist eliminator system shall not exceed 0.6 pounds during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. VOC emissions from the vegetable oil fryer exhaust downstream of the oil mist eliminator system shall not exceed 11.0 pounds during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Oil mist eliminator system shall reduce at least 85% (by weight) of the uncontrolled VOC emissions and 95% (by weight) of the uncontrolled PM10 emissions from the vegetable oil fryer. [District Rule 2201] Federally Enforceable Through Title V Permit
11. PM10 emissions from the ambient air cooler exhaust downstream of high velocity filtration system shall not exceed 7.7 pounds per day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. High velocity filtration system shall reduce uncontrolled PM10 emissions by at least 70% (by weight) from the ambient air cooler. [District Rule 2201] Federally Enforceable Through Title V Permit
13. PM10 emissions from the seasoning system exhaust downstream of scrubber system shall not exceed 3.3 pounds during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Water scrubber shall reduce uncontrolled PM10 emissions by at least 95% (by weight) from the seasoning system. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The seasoning system scrubber water circulation rate (gallons per minute) range shall be established per manufacturer's recommendation at time of startup inspection. This information shall be administratively incorporated in the Permit to Operate. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The seasoning system scrubber water circulation rate (gallons per minute) shall be monitored and recorded each day the seasoning system operates. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Source testing to verify compliance with emission limits and control efficiency requirements of emission control devices for vegetable oil fryer, seasoner system, and ambient air cooler shall be conducted within 60 days of producing a sellable product. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
20. 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. The District Compliance Division may approve lesser time period for each test run upon evaluating technical justification for such request. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to measure PM10 shall be conducted using either: EPA Method 201 or 201A, and 202; or CARB Method 5 in combination with 501. Should the applicant decided to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

22. In lieu of performing a source test for PM10, the results of the total particulate test may be used for compliance with the PM10 emissions limit provided the results include both the filterable and condensable (back half) particulate, and that all particulate matter is assumed to be PM10. Source testing to measure concentrations of total particulate emissions shall be conducted using EPA method 5. [District Rule 2201] Federally Enforceable Through Title V Permit

23. A presurvey must be done prior to source testing to determine VOC compound analytes present in the effluent stream from vegetable oil fryer. The presurvey shall be used to develop the appropriate sampling approach to ensure efficient collection of all VOCs present in the effluent and to develop a specific list of target compounds to be quantified during the subsequent total VOC source testing. VOC source testing shall be conducted using EPA Methods 18, 25, 25A. EPA Methods 25 or 25A can be used to determine the total VOCs only if the analyzer is calibrated with appropriate compound as determined during the presurvey, and the total carbon mass is scaled to the mole fraction of that appropriate compound, with the balance being scaled to the relative mole fraction of the other identified compounds. The Method 25 or 25A scaling factor shall be reported in the source test report and may be listed in the Permit to Operate for future testing (if any) required by the District. Should the permittee decide to use a different test methodology, the methodology must first be approved by the District. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Stack gas velocity or volumetric flow rate shall be determined using EPA Methods 2, 2A, or 2D. [District Rule 2201] Federally Enforceable Through Title V Permit

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

26. The owner or operator shall maintain records sufficient to demonstrate compliance with each emission limit and permit requirement. These records shall contain each calculated emission quantity as well as each process variable used in the respective calculations. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Visible emissions from each dust collection system shall be inspected annually during operation. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Bags or filters associated with each dust collection system shall be thoroughly inspected annually for tears, scuffs, abrasions, holes, or any evidence of particulate matter leaks and shall be replaced as needed. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Records of equipment & associated control device(s) maintenance, inspections, and repair shall be maintained. The records shall include the identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2201] Federally Enforceable Through Title V Permit

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

31. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

32. 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] Federally Enforceable Through Title V Permit

33. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

34. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or increase in firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Prior to operating equipment under Authority to Construct permit N-1919-22-0, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 355 lb, 2nd quarter - 355 lb, 3rd quarter - 356 lb, and fourth quarter - 356 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. ERC Certificate Numbers S-3411-1 and/or S-3426-1 (or a certificate split from these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct permits shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct permit. [District Rule 2201] Federally Enforceable Through Title V Permit

37. Prior to operating equipment under Authority to Construct permit N-1919-22-0, permittee shall surrender PM10 emission reduction credits for the following quantity of emissions: 1st quarter - 1,643 lb, 2nd quarter - 1,643 lb, 3rd quarter - 1,643 lb, and fourth quarter - 1,643 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

38. ERC Certificate Number S-5255-4 (or a certificate split from this certificate) shall be used to supply the required PM10 offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct permits shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct permit. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1919-23-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: FRITO-LAY INC
MAILING ADDRESS: 600 GARNER RD
MODESTO, CA 95357-0514

LOCATION: 600 GARNER RD
MODESTO, CA 95357-0514

EQUIPMENT DESCRIPTION:
CORN MEAL SILO VENTED THROUGH A SCHICK ESTEVE IQC FILTER SYSTEM; SILO FILLED USING PNEUMATIC CORNMEAL UNLOADER FILTER/RECEIVER SYSTEM UNDER PERMIT N-1919-19-0

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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions from silo filter system exhaust under this permit shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. 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
6. Visible emissions from the dust collection system serving the silo shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit

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

Brian Clements, Director of Permit Services
N-1919-23-0 : Oct 12 2022 4:09PM -- KAHLONJ : Joint Inspection NOT Required

7. PM10 emissions from the corn meal silo served by the dust collection system system shall not exceed 0.00025 pounds per ton of material conveyed in the silo. [District Rule 2201] Federally Enforceable Through Title V Permit

8. No more than 162 tons of material shall be conveyed in the silo during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Visible emissions from the dust collection system shall be inspected annually during operation. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The owner or operator shall maintain records sufficient to demonstrate compliance with each emission limit and permit requirement. These records shall contain each calculated emission quantity as well as each process variable used in the respective calculations. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Bags or filters associated with each dust collection system shall be thoroughly inspected annually for tears, scuffs, abrasions, holes, or any evidence of particulate matter leaks and shall be replaced as needed. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Records of equipment & associated control device(s) maintenance, inspections, and repair shall be maintained. The records shall include the identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2201] Federally Enforceable Through Title V Permit

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

14. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

15. 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] Federally Enforceable Through Title V Permit

16. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

17. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or increase in firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

Appendix B
BACT Guidelines

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 1.6.3*

Last Update: 2/21/2020

Snack Chip Fryer with Indirect-Fired Heat Transfer System

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	COMBUSTION EMISSIONS: Use PUC quality natural gas fuel with LPG/Propane as backup fuel FRYING PROCESS EMISSIONS: None	FRYING PROCESS EMISSIONS: 1) 85% control (combined VOC and PM control by thermal oxidizer, or equal); 2) 80% control (combined VOC and PM control by carbon adsorber, or equal)	
SOx	Use PUC quality natural gas fuel with LPG/Propane as backup fuel		
PM10	COMBUSTION EMISSIONS: Use PUC quality natural gas fuel with LPG/Propane as backup fuel FRYING PROCESS EMISSIONS: 75% control (oil mist eliminator or equal)	FRYING PROCESS EMISSIONS: 1) 85% control (combined VOC and PM control by thermal oxidizer, or equal); 2) 80% control (combined VOC and PM control by carbon adsorber, or equal)	
NOx	9 ppmvd @ 3% O2 for units greater than 5 MMBtu/hr to less than or equal to 20 MMBtu/hr 7 ppmvd @ 3% O2 for units greater than 20 MMBtu/hr		
CO	100 ppmvd @ 3% O2		

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

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

San Joaquin Valley
Unified Air Pollution Control District
Best Available Control Technology (BACT) Guideline XXX*

Emissions Unit: Snack Chip Seasoning System **Industry Type:** Food Processing

Equipment Rating: All **Last Update:** October 6, 2022

Pollutant	Achieved-in-Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
PM_{10}		At least 95% reduction of captured particulate matter emissions using wet scrubber, or equivalent dust control system	

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

***This is a Summary Page for this Class of Source - Permit Specific BACT Determinations on Next Page(s)**

San Joaquin Valley
Unified Air Pollution Control District
Best Available Control Technology (BACT) Guideline 5.5.2*

Emissions Unit: Snack Chip Ambient Air Cooler **Industry Type:** Food Manufacturing

Equipment Rating: All **Last Update:** October 6, 2022

Pollutant	Achieved-in-Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
PM_{10}	Use properly engineered high velocity air filtration system with oil baffle type filters, or equivalent filter system (70% control)		

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

***This is a Summary Page for this Class of Source - Permit Specific BACT Determinations on Next Page(s)**

Appendix C
BACT Analysis

Top-Down BACT Analysis

N-1919-22-0:

Steam-heated vegetable oil fryer equipped with oil mist eliminator (OME)

The proposed fryer triggers BACT for VOC emissions due to the fryer process emissions. Thus, top-down BACT analysis is required.

Step 1: Identify All Possible Control Technologies

BACT guideline 1.6.3 for a snack chip fryer with an indirect heat transfer system will be used to address the BACT requirements for VOC emissions.

Achieved-in-Practice (AIP):
During review of this project, the District discovered a fryer at Frito-Lay, Inc. facility in Rancho Cucamonga that produces onion fried snack (OFS) packaged and sold as FUNYUN. Per SCAQMD, this fryer is equipped with a 2 MMBtu/hr natural gas-fired burner, and oil mist eliminator (OME) system. The fryer exhaust is routed into the combustion air for the burner to eliminate any residual oil residues in the exhaust.

Frito-Lay, Inc. contends that the natural gas-fired configuration fryer at Rancho Cucamonga facility is different in design and operation compared to that of the steam-heated fryer proposed under this project. Therefore, the fryer configuration at Rancho Cucamonga facility should not be used to establish an achieved-in-practice BACT for steam-heated fryers.

Steam-heated relies on steam produced by other apparatus at the plant such as boilers and steam generators in very fuel efficient manner. Thus, the direct emissions footprint of these fryers is near zero compared to natural gas-fired fryers. Therefore, steam heated fryers will be treated as different class of units in a snack manufacturing establishment.

At this time, the District is not aware of any steam heated fryer that is routed to a regenerative thermal oxidizer or any other add-on emission control device to reduce VOC emissions. Therefore, no AIP BACT standard exists at this time.

Technologically Feasible:
1. 85% control (combined VOC and PM control by thermal oxidizer, or equal)
2. 80% control (combined VOC and PM control by carbon adsorber, or equal)

Alternate Basic Equipment:
None

Step 2: Eliminate Technologically Infeasible Options

All control options listed in step 1 are technologically feasible.

Step 3: Rank Remaining Control Technologies by Control Effectiveness

1. 85% control (combined VOC and PM control by thermal oxidizer, or equal)
2. 80% control (combined VOC and PM control by carbon adsorber, or equal)

Step 4: Cost Effectiveness Analysis

As noted in section VII.C.2 above, Frito-Lay, Inc. has proposed to achieve 85% control for VOC and 95% control for PM emissions with the use of oil mist eliminator system (OME) system. Therefore, cost effectiveness analysis is not required.

Step 5: Select BACT

The applicant has proposed to install a steam-operated fryer without the use of any control equipment.

Snack chip cooler (Ambient air cooler) with high velocity filtration system

The proposed ambient air cooler triggers BACT for PM10 emissions. Therefore, BACT analysis is required.

The draft revised BACT guideline 5.5.2 lists the following options. The detailed draft BACT analysis is included at the end of this appendix.

Step 1: Identify All Possible Control Technologies

The following technologies are determined to be practically feasible in reducing PM_{10} emissions from snack chip cooling process:

1. High velocity filtration system (70% control efficiency)

Step 2: Eliminate Technologically Infeasible Options

All control options listed in step 1 are technologically feasible.

Step 3: Rank Remaining Control Technologies by Control Effectiveness

1. High velocity filtration system (70% control efficiency)

Step 4: Cost Effectiveness Analysis

The applicant has proposed to use high velocity filter system to reduce PM10 emissions. Therefore, cost effectiveness analysis is not required.

Step 5: Select BACT

BACT is to use high velocity filter system for the proposed ambient air cooler. The applicant has proposed to this technology. Therefore, BACT requirements are satisfied.

Seasoning system served by a scrubber

The proposed seasoning system triggers BACT for PM10 emissions. Therefore, BACT analysis is required. A new BACT guideline is prepared for the seasoning system. The detailed draft BACT analysis is included at the end of this appendix.

Step 1: Identify All Possible Control Technologies

1. At least 95% reduction of captured particulates using wet scrubber or equivalent dust collection system (Technologically feasible)

Step 2: Eliminate Technologically Infeasible Options

All control options listed in step 1 are technologically feasible.

Step 3: Rank Remaining Control Technologies by Control Effectiveness

1. At least 95% reduction of captured particulates using wet scrubber or equivalent dust collection system (Technologically feasible)

Step 4: Cost Effectiveness Analysis

The applicant has proposed to reduce at least 95% of the captured particulate matter emissions using wet scrubber. Thus, cost effectiveness analysis is not required.

Step 5: Select BACT

The BACT is to to reduce at least 95% of the captured particulate matter emissions using wet scrubber. The applicant has proposed to comply with this requirement. Therefore, BACT requirements are satisfied.

BACT Analysis for Snack Chip Seasoner System

New Best Available Control Technology Analysis

Snack Chip Seasoning System

Prepared by:
Jag Kahlon, Senior Air Quality Engineer

Reviewed by:
James Harader, Supervising Air Quality Engineer

I. Introduction

Frito-Lay Inc. has proposed to install a seasoning system for the onion fried snack (OFS) manufacturing line. The potential emissions from the seasoning system are above 2 pounds per day and triggers Best Available Control Technology (BACT) for particulate matter emissions of 10 microns or less (PM10). Currently, the District BACT clearinghouse does not have a guideline to address BACT for the snack chip seasoner system. Therefore, a new BACT guideline is needed.

Snack chip seasoning system involves a seasoner, typically a circular drum or reel or similar other devices that uniformly coats seasoning on the snack chips, support equipment that supply seasoning from a vessel, and a duct or vacuum system to capture small particles that becomes air born during the application. In general, snack chips are produced, seasoned and cooled. Seasoning includes with various blend of spices or flavorings depending on the type of snack being produced on a snack manufacturing line.

II. BACT Categories

This BACT guideline will belong to commercial food production category - snack chip seasoning system.

As stated in section I above, this BACT guideline can be applied to any commercial snack making operation that produces snack chips (e.g., potato chips, corn chips, etc.) and applying dry/semi-dry or liquid (oil emulsified) seasonings to the chips. The seasoner system generates particulate matter emissions during seasoning application operation. Therefore, discussion is limited to particulate matter emissions control only.

III. Top-Down BACT Analysis

A. BACT analysis for PM10 Emissions

PM_{10} is generated from applying seasoning to snack chips.

Step 1 - Identify All Possible Control Technologies

BACT Clearinghouse Survey:

The following BACT clearinghouses were consulted to determine whether any seasoner at commercial snack making operation have been required to employ emission controls to reduce PM_{10} emissions:

- EPA RACT/BACT/LAER clearinghouse
- CARB BACT clearinghouse
- South Coast AQMD BACT clearinghouse
- Bay Area AQMD BACT clearinghouse
- Sacramento Metro AQMD BACT clearinghouse
- San Joaquin Valley APCD BACT clearinghouse

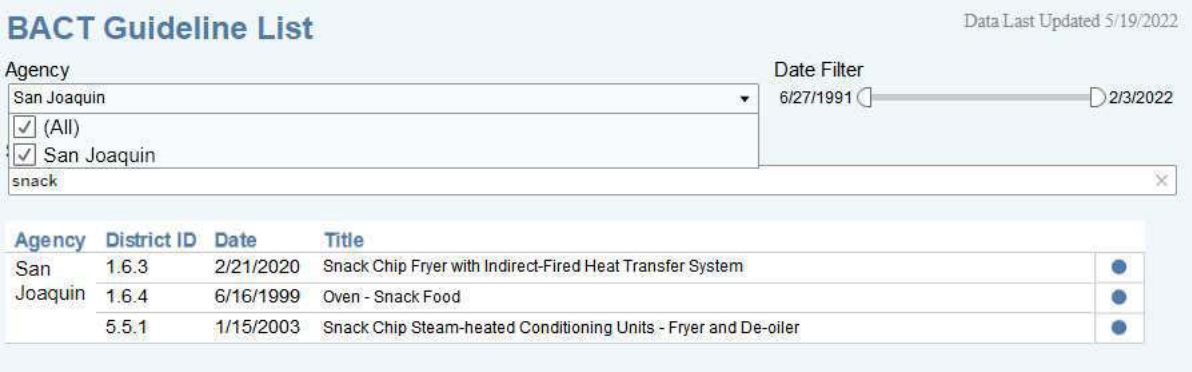
EPA RACT/BACT/LAER clearinghouse
The database was searched using the following criteria:

Permit Date: 1/1/2012 to 8/28/2022
Process Type: All Process Types
Process Name Contains: Snack chip, snack, chip
Pollutant Name: All pollutants

No results were found.

CARB BACT clearinghouse
The database (https://ww3.arb.ca.gov/bact/bactnew/rptpara.htm) was searched using the following criteria:

Search: Snack



None of the guidelines identified above is for the snack chip seasoner system.

South Coast AQMD BACT clearinghouse
The existing determinations under "Part B: Section I – SCAQMD LAER/BACT" were reviewed (http://www.aqmd.gov/home/permits/bact/guidelines/i---scaqmd-laer-bact). No relevant BACT determination was found.

The existing determinations under "Part B: Section II – Other LAER/BACT" were reviewed (http://www.aqmd.gov/home/permits/bact/guidelines/ii---other-laer-bact). No relevant BACT determination was found.

The existing determinations under "Part B: Section III – Other Technologies" were reviewed (http://www.aqmd.gov/home/permits/bact/guidelines/iii---other-technologies). No relevant BACT determination was found.

The draft LAER Part B, Section I and III Draft Proposals were also reviewed (http://www.aqmd.gov/docs/default-source/bact/proposed_updates_bact_partb_draft_2-2-18.pdf?sfvrsn=6). No relevant BACT determination was found.

Further, the draft Major Source, Part D Draft Proposals were also reviewed (http://www.aqmd.gov/docs/default-source/bact/proposed_updates_bact_guidelines_partd_draft_2-2-18.pdf?sfvrsn=6). No relevant BACT guideline was found.

Bay Area AQMD BACT clearinghouse
The BACT guidelines available on BAAQMD website were reviewed (http://www.baaqmd.gov/permits/permitting-manuals/bact-tbact-workbook).

No relevant BACT guideline was found.

Sacramento Metro AQMD BACT Clearinghouse
The BACT guidelines available on the AQMD website were reviewed (http://www.airquality.org/businesses/permits-registration-programs/best-available-control-technology-(bact))

No relevant BACT guideline was found.

SJVAPCD BACT clearinghouse
The District BACT clearinghouse does not have a BACT guideline for a snack seasoning system.

Survey of Federal, State and Local Rules and Regulations

The following rules and regulations were consulted to determine whether any limits apply to seasoner at commercial snack making operation to reduce PM10 emissions:

- New Source Performance Standard
- CARB (no applicable rules)
- South Coast AQMD Regulation XI Rules
- Bay Area AQMD Rules
- Sacramento Metro AQMD Rules
- San Joaquin Valley APCD Regulation IV Rules

Title 40, Chapter I, Subchapter C, Part 60 – Standards of Performance for New Stationary Sources

There is no subpart that is applicable to snack chip production facilities. Therefore, no further discussion is required. Subparts are available at: https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60?toc=1

CARB (no applicable rules)

CARB's website includes rules from local air district related to stationary sources. There was no rules applicable specifically to snack chip seasoning systems.

South Coast AQMD Regulation XI Rules

Rules in Regulation VII (http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-xi) are reviewed. No relevant rule applicable to this were found, except for Rule 1155 applicable to particulate matter control devices. Table 1 (below) in the rule includes summary of the requirements. Visible emissions are required to be monitored at least once for the units vented to a scrubber. There are no emissions standard or other limitation listed in this rule.

Table 1
Summary of Requirements

Fabric Filtration PM Air Pollution Control Equipment (baghouses)*			Other Fabric and Non-Fabric Filtration PM Air Pollution Control Equipment (dust collectors, cyclones, ESPs, wet scrubbers)*
Tier 1	Tier 2	Tier 3	n/a
≤ 500 square feet	> 500 – 7,500 square feet	> 7,500 square feet	n/a
Once-a-week visible emissions monitoring and recordkeeping (new, existing)	Once-a-week visible emissions monitoring and recordkeeping (new, existing)	Until BLDS is installed, once-a-week visible emissions monitoring and recordkeeping	Once-a-week visible emissions monitoring and recordkeeping (new, existing)
--	--	BLDS installation (new, existing)	--
--		Emission limit (0.01 gr/dscf)	--
		Title V facilities conduct initial source test and test every five years relative to compliance with the emission limit.	

* Except as provided in subdivision (g) Exemptions.

Bay Area AQMD Rules

BAAQMD rules (https://www.baaqmd.gov/rules-and-compliance/current-rules) were reviewed. Regulation 6 Rule 2 – Commercial Cooking Equipment (12/5/07) was reviewed (https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-6-rule-2-commercial-cooking-equipment/documents/rg0602.pdf?la=en&rev=42fc0966398c43f9b585572708a5ea70). No requirement were found for snack seasoning equipment.

Sacramento Metro AQMD Rules

The AQMD regulation 4 was reviewed (https://www.airquality.org/Businesses/Rules-Regulations). Rule 404 – Particulate matter (11/20/1984), http://www.airquality.org/ProgramCoordination/Documents/rule404.pdf, limits particulate matter from a facility engaged in the preparation of canned and preserved fruits and vegetables (SIC group 203). Since the operations at Frito-Lay does not involve canning to preserve fruits and vegetables, the requirements in this rule are not applicable to this facility.

San Joaquin Valley APCD Regulation IV Rules

Regulation IV (https://www.valleyair.org/rules/1ruleslist.htm#reg4) was reviewed. There is no rule that applies to snack chip manufacturing operations.

Survey of snack chip food manufacturing operation permits in the SJVAPCD:

Permits database was queried to identify seasoners listed in active permits at snack chip manufacturing operations. The following units were identified:

Facility Name	Permit #	Equipment Description	Source test data/other relevant information
LA TAPATIA TORTILLERIA INC	C-3252-10-0	3.1 MMBTU/HR CASA HERRERA MODEL TCO-150 NATURAL GAS-FIRED OVEN IN SERIES WITH A CHIP COOLER AND A CONVEYORIZED OIL FRYER WITH VENTILATION HOOD AND OIL MIST ELIMINATOR, HEAT EXCHANGER, FEEDING **SEASONING** AND PACKAGING EQUIPMENT	No test data
FRITO-LAY INC	N-1919-1-10	UTC 1 (TORTILLA CHIP) CONSISTING OF TWO PERMIT EXEMPT PRE-COOKERS (STEAM-HEATED), TWO 3.2 MMBTU/HR (EACH) OVENS (DIRECT-FIRED), ONE COOKER (STEAM-HEATED), ONE MECHANICAL SEASONER AND A HEAT & CONTROL AMBIENT AIR COOLER SERVED BY A HIGH VELOCITY AIR FILTER. THE WET SCRUBBER SERVES THE **SEASONER** AND IS SHARED WITH PERMIT UNIT N-1919-2.	No test data
FRITO-LAY INC	N-1919-2-11	UTC 2 (TORTILLA CHIP) CONSISTING OF TWO STEAM-HEATED PRE-COOKER, TWO 5.58 MMBTU/HR (EACH) CASA HERRERA MODEL MACH IV XWXL OVENS (DIRECT-FIRED, INDUCED DRAFT), ONE STEAM-HEATED COOKER AND A MECHANICAL SEASONER. WET SCRUBBER SERVES THE **SEASONER** AND IS SHARED WITH PERMIT UNIT N-1919-1.	No test data

Facility Name	Permit #	Equipment Description	Source test data/other relevant information
FRITO-LAY INC	N-1919-3-9	LINE #1 (POTATO CHIP) CONSISTING OF STEAM POWERED HEAT EXCHANGER SYSTEM PROVIDING HEAT TO A COOKER THAT IS SERVED BY AN OIL MIST ELIMINATOR, AND A MECHANICAL **SEASONER**	July 25, 1996 source test results: 0.333 lb-PM/hr (average); production rate unknown
FRITO-LAY INC	N-1919-4-7	LINE #2 (LIGHT POTATO CHIP): ONE COOKER (WITH A STEAM-POWERED HEAT EXCHANGER) SERVED BY AN OIL MIST ELIMINATOR, TWO POST COOKER CONDITIONING UNITS (ONE HEATED BY STEAM, ONE HEATED BY PERMIT EXEMPT 0.5 MMBTU/HR DRYER DIRECT-FIRED BURNER) AND A MECHANICAL **SEASONER**.	No test data
FRITO-LAY INC	N-1919-7-8	LINE #5 (SUN CHIP) CONSISTING OF A HAMMERMILL SERVED BY AN AAF TYPE-W ROTOCLONE EMISSIONS CONTROL SYSTEM, THREE HAMILTON MODEL SA300GAL PERMIT-EXEMPT PRE-COOKERS (STEAM HEATED), AND A HEAT & CONTROL MODEL E41 FRYER (STEAM HEATED) SERVED BY A HEAT AND CONTROL MODEL OME OIL MIST ELIMINATOR AND A **SEASONER**	No test data
FRITO-LAY INC	N-1919-8-7	FRIED CHEESE PUFF LINE (LINE #7) CONSISTING OF PNEUMATIC CORN MEAL TRANSFER SYSTEM SERVED BY A SHICK TUBE-VEYOR CORPORATION MODEL STS-26 DUST COLLECTOR, TWO AMERICAN PROCESS MODEL DRB-18 BLENDERS, SIX R & D MACHINE MODEL FCP EXTRUDERS EACH SERVED BY A COMMON AMERICAN AIR FILTRATION W-TYPE ROTOCLONE, ONE FRITO-LAY EQUIPMENT MODEL #77 CHAFF TUMBLER, ONE HEAT AND CONTROL STEAM-HEATED FRYER SERVED BY AN OIL MIST ELIMINATOR, ONE FRITO-LAY EQUIPMENT **SEASONER**, CONVEYORS AND PACKAGING EQUIPMENT	No test data
FRITO-LAY INC	S-2076-2-9	236 HP POTATO CHIP LINE #1 INCLUDING FRYER VENTILATION HOOD, ANDERSEN MODEL WAV-123 SCRUBBER, SCREEN CONVEYOR, SALTER AND **SEASONER**	No test data
FRITO-LAY INC	S-2076-3-9	CORN CHIP PRODUCTION LINE #1 INCLUDING FRYING VAT WITH VENTILATION HOOD AND MIST ENTRAINMENT SEPARATOR, EXHAUST FAN, FRYER HOOD LIFT, **SEASONER**, FRYER FINES REMOVAL SCREEN WITH AIR CLEANING SYSTEM, AND AMBIENT AIR COOLER SERVED BY HIGH VELOCITY AIR FILTER	No test data

Facility Name	Permit #	Equipment Description	Source test data/other relevant information
FRITO-LAY INC	S-2076-4-9	TORTILLA CHIP LINE #1 WITH CONVEYORIZED OIL FRYER, HEAT EXCHANGER, **SEASONER**, 6.83 MMBTU/HR NATURAL GAS FIRED CASA HERRERA OVEN, AND ONE AMBIENT AIR COOLER SERVED BY HIGH VELOCITY DUCT FILTER AND HEAT RECOVERY AND HOT WATER STORAGE SYSTEM SHARED WITH S-2076-5	No test data
FRITO-LAY INC	S-2076-5-9	TORTILLA CHIP LINE #2 WITH CONVEYORIZED OIL FRYER, HEAT EXCHANGER, **SEASONER**, 6.83 MMBTU/HR NATURAL GAS FIRED CASA HERRERA OVEN, AND ONE AMBIENT AIR COOLER SERVED BY HIGH VELOCITY DUCT FILTER AND HEAT RECOVERY AND HOT WATER STORAGE SYSTEM SHARED WITH S-2076-4	No test data
FRITO-LAY INC	S-2076-8-11	CORN CHIP PRODUCTION LINE #2 INCLUDING FRYING VAT WITH VENTILATION HOOD AND MIST ENTRAINMENT SEPARATOR, EXHAUST FAN, HEAT EXCHANGER, CIRCULATING PUMP, TRANSFER PUMP, FRYER HOOD LIFT, **SEASONER**, FRYER FINES REMOVAL SCREEN WITH AIR CLEANING SYSTEM, AND AMBIENT AIR COOLER SERVED BY HIGH VELOCITY AIR FILTER	No test data
FRITO-LAY INC	S-2076-21-16	9.56 MMBTU/HR TORTILLA CHIP LINE #3, INCLUDING: 9.56 MMBTU/HR OVEN, FRYER, **SEASONER**, AIR COOLER, AND **ON MACHINE SEASONING (OMS) SYSTEM** SERVED BY DUST COLLECTOR	No test required; OMS served by dust collector (99%); permitted limit - 0.02 lb-PM_{10}/hr; permitted chip production - 3,300 lb/hr;
JIMMYASH LLC	S-8715-1-0	POTATO CHIP PRODUCTION OPERATION CONSISTING OF A 5.0 MMBTU/HR (OUTPUT) / 6.4 MMBTU/HR (INPUT) VAPOR POWER MODEL OG-5937-SHK-50, SN 24057, THERMAL FLUID HEATER WITH A POWER FLAME MODEL NP2-G-840, SN 091455357 ULTRA-LOW NOX BURNER; AND PERMIT EXEMPT RAW POTATO RECEIVING, PRE-TREATMENT, BLANCHER, OIL-DIP SEASON, CHIP DRYER, **SEASONING SYSTEM**, AND CHIP PACKAGING LINE (LESS THAN 2.0 LB PM10/DAY)	No test data

Web Search

Permits for Saratoga Potato Chips LLC, at 6923 Lincoln Parkway, Fort Wayne, Indiana 46802 (https://permits.air.idem.in.gov/35885d.pdf) indicates that a dust filter controls particulate matter from all seasoners. It is unknown what type of dust filter controls are being used at this site.

List of Control Options:

Based on the search of *BACT Clearinghouse Survey, survey of snack chip food manufacturing operation permits in the SJVAPCD, and web search* shown above, the following emission control options are used to reduce particulate matter emissions from seasoning application operation:

- Use of a dust collector
- Use of a wet scrubber

The use of these technologies have been in use at Frito-Lay, Inc. (S-2076 and N-1919). Therefore, these technologies are considered to be an as achieved-in-practice standard for the seasoner system. To District's knowledge, control efficiencies of these devices have not been determined.

The technical specification sheet for the wet scrubber under project N-1220099 indicates 95% control of particles equal to or greater than 2.0 micron diameter in size, and 99% for particles equal to or greater than 10.0 micron diameter in size.

Further, the application data for the dust collector serving the seasoner system under S-2076-21 indicates a control efficiency 99.99% for PM_{10} emissions. The application does not specify control efficiency for various particle size ranges. No testing was required under S-2076-21-13 to verify the claimed control efficiency.

The District is taking a conservative approach for snack chip seasoner system and assumes that a wet scrubber or dust collector (with polyester bags) is expected to achieve at least 95% for the PM_{10} emissions. This standard is deemed technologically feasible at this time and will be adminstratively moved to achieved-in-practice upon successful compliance demonstration with the required standard. Also, if control efficiency in the actual test is found to be higher than 95%, then those results will be administratively incoroprated into the achieved-in-practice standard after considering reasonable margin of compliance.

Pollutant	Achieved in Practice	Technologically feasible	Alternate Basic Equipment
PM_{10}		At least 95% reduction of captured particulate matter emissions using wet scrubber, or equivalent dust control system	

Step 2 - Eliminate Technologically Infeasible Options

There is no technologically infeasible option listed in Step 1. Therefore, no further discussion is required.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. 95% control using wet scrubber or equivalent dust control system

Step 4 - Cost Effectiveness Analysis

Frito Lay-Inc. has proposed to reduce at least 95% of the particulate matter entering in wet scrubber system. Thus, no cost effectiveness analysis is required.

Step 5 - Select BACT

BACT is to reduce at least 95% of the captured emissions. The applicant has proposed to comply with this BACT standard; therefore, BACT requirements are satisfied.

IV. Recommendation

Upon approval, the attached guideline is recommended to be adopted into District's BACT Clearinghouse.

Appendices

Appendix A: Draft BACT Guideline

Appendix A
Draft BACT Guideline

San Joaquin Valley
Unified Air Pollution Control District
Best Available Control Technology (BACT) Guideline XXX*

Emissions Unit: Snack Chip Seasoning System **Industry Type:** Food Processing

Equipment Rating: All **Last Update:** October 6, 2022

Pollutant	Achieved-in-Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
PM_{10}		At least 95% reduction of captured particulate matter emissions using wet scrubber, or equivalent dust control system	

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

***This is a Summary Page for this Class of Source - Permit Specific BACT Determinations on Next Page(s)**

BACT Analysis for Snack Chip Ambient Air Cooler

Best Available Control Technology Analysis

Snack Chip Ambient Air Cooler

Prepared by:
Jag Kahlon, Senior Air Quality Engineer

Reviewed by:
James Harader, Supervising Air Quality Engineer

I. Introduction

The objective of this project is review and update the existing Best Available Control Technology (BACT) guideline 5.5.2 for a snack chip ambient air cooler at a commercial snack manufacturing operation (refer to **Appendix B**). These ambient air coolers are used for rapid cooling of snack chips that will immediately stop cooking in a matter of seconds in most cases. In general, during cooling process, external cool low-humidity air is vigorously circulated through the product, which make some water-grease (oily particles) entrain in the exhaust air. The entrained particles are either captured in a oil baffle type filtration system or other similar control devices, before discharging the laden air into the atmosphere.

II. BACT Categories

BACT guideline, which is the focus of this project, is:

- BACT guideline 5.5.2 – Snack Chip Ambient Air Cooler

As stated in section I above, this BACT guideline can be applied to any commercial snack chip manufacturing operation that produces snack chips (e.g., potato chips, corn chips, etc.) and use snack chip ambient air coolers. The ambient air coolers generates particulate matter emissions. Therefore, discussion is limited to particulate matter emissions control only.

III. Top-Down BACT Analysis

A. BACT analysis for PM_{10} Emissions

PM_{10} is generated from ambient air coolers used in snack chip manufacturing operation.

Step 1 - Identify All Possible Control Technologies

BACT Clearinghouse Survey:

The following BACT clearinghouses were consulted to determine whether any snack chip ambient air cooler at commercial snack making operation have been required to employ emission controls to reduce PM10 emissions:

- EPA RACT/BACT/LAER clearinghouse
- CARB BACT clearinghouse
- South Coast AQMD BACT clearinghouse

- Bay Area AQMD BACT clearinghouse
- Sacramento Metro AQMD BACT clearinghouse
- San Joaquin Valley APCD BACT clearinghouse

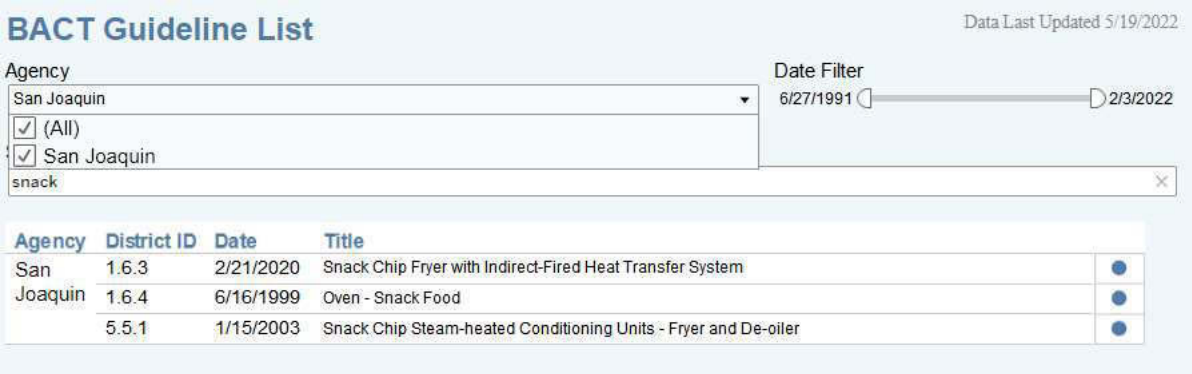
EPA RACT/BACT/LAER clearinghouse
The database was searched using the following criteria:

Permit Date: 1/1/2012 to 8/28/2022
Process Type: All Process Types
Process Name Contains: Snack chip, snack, chip
Pollutant Name: All pollutants

No results were found.

CARB BACT clearinghouse
The database (https://ww3.arb.ca.gov/bact/bactnew/rptpara.htm) was searched using the following criteria:

Search: Snack



None of the guidelines identified above is for a snack chip ambient air cooler system.

South Coast AQMD BACT clearinghouse
The existing determinations under "Part B: Section I – SCAQMD LAER/BACT" were reviewed (http://www.aqmd.gov/home/permits/bact/guidelines/i---scaqmd-laer-bact). No relevant BACT determination was found.

The existing determinations under "Part B: Section II – Other LAER/BACT" were reviewed (http://www.aqmd.gov/home/permits/bact/guidelines/ii---other-laer-bact). No relevant BACT determination was found.

The existing determinations under "Part B: Section III – Other Technologies" were reviewed (http://www.aqmd.gov/home/permits/bact/guidelines/iii---other-technologies). No relevant BACT determination was found.

The draft LAER Part B, Section I and III Draft Proposals were also reviewed (http://www.aqmd.gov/docs/default-source/bact/proposed_updates_bact_partb_draft_2-2-18.pdf?sfvrsn=6). No relevant BACT determination was found.

Further, the draft Major Source, Part D Draft Proposals were also reviewed (http://www.aqmd.gov/docs/default-source/bact/proposed_updates_bact_guidelines_partd_draft_2-2-18.pdf?sfvrsn=6). No relevant BACT guideline was found.

Bay Area AQMD BACT clearinghouse
The BACT guidelines available on BAAQMD website were reviewed (http://www.baaqmd.gov/permits/permitting-manuals/bact-tbact-workbook).

No relevant BACT guideline was found.

Sacramento Metro AQMD BACT Clearinghouse
The BACT guidelines available on the AQMD website were reviewed (http://www.airquality.org/businesses/permits-registration-programs/best-available-control-technology-(bact))

SJVAPCD BACT clearinghouse
The current requirements in District BACT guideline 5.5.2 for tortilla chip line ambient air cooler are summarized in the following table:

Pollutant	Achieved in Practice	Technologically feasible	Alternate Basic Equipment
PM_{10}	Use of high velocity dust filter (70% control) 0.16 lb/hr		

Survey of Federal, State and Local Rules and Regulations

The following rules and regulations were consulted to determine whether any limits apply to seasoner at commercial snack making operation to reduce PM10 emissions:

- New Source Performance Standard
- CARB (no applicable rules)
- South Coast AQMD Regulation XI Rules
- Bay Area AQMD Rules
- Sacramento Metro AQMD Rules
- San Joaquin Valley APCD Regulation IV Rules

Title 40, Chapter I, Subchapter C, Part 60 – Standards of Performance for New Stationary Sources

There is no subpart that is applicable to snack chip production facilities. Therefore, no further discussion is required. Subparts are available at: https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60?toc=1

CARB (no applicable rules)

CARB's website includes rules from local air district related to stationary sources.

South Coast AQMD Regulation XI Rules

Rules in Regulation VII (http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-xi) are reviewed. No relevant rule applicable to this were found, except for Rule 1155 applicable to particulate matter control devices. Table 1 (below) in the rule includes summary of the requirements. Visible emissions are required to be monitored at least once for the units vented to a fabric filtration devices with up to 7,500 square feet of filter area. There are no emissions standard or other limitation listed in this rule.

Table 1
Summary of Requirements

Fabric Filtration PM Air Pollution Control Equipment (baghouses)*			Other Fabric and Non-Fabric Filtration PM Air Pollution Control Equipment (dust collectors, cyclones, ESPs, wet scrubbers)*
Tier 1	Tier 2	Tier 3	n/a
≤ 500 square feet	> 500 – 7,500 square feet	> 7,500 square feet	n/a
Once-a-week visible emissions monitoring and recordkeeping (new, existing)	Once-a-week visible emissions monitoring and recordkeeping (new, existing)	Until BLDS is installed, once-a-week visible emissions monitoring and recordkeeping	Once-a-week visible emissions monitoring and recordkeeping (new, existing)
--	--	BLDS installation (new, existing)	--
--		Emission limit (0.01 gr/dscf)	--
		Title V facilities conduct initial source test and test every five years relative to compliance with the emission limit.	

* Except as provided in subdivision (g) Exemptions.

Bay Area AQMD Rules

BAAQMD rules (https://www.baaqmd.gov/rules-and-compliance/current-rules) were reviewed. Regulation 6 Rule 2 – Commercial Cooking Equipment (12/5/07) was reviewed (https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-6-rule-2-commercial-cooking-equipment/documents/rg0602.pdf?la=en&rev=42fc0966398c43f9b585572708a5ea70). No requirement were found for snack chip ambient air coolers.

Sacramento Metro AQMD Rules

The AQMD regulation 4 was reviewed (https://www.airquality.org/Businesses/Rules-Regulations). Rule 404 –

Particulate matter (11/20/1984), http://www.airquality.org/ProgramCoordination/Documents/rule404.pdf, limits particulate matter from a facility engaged in the preparation of canned and preserved fruits and vegetables (SIC group 203). Since the operations at Frito-Lay does not involve canning to preserve fruits and vegetables, the requirements in this rule are not applicable to this facility.

San Joaquin Valley APCD Regulation IV Rules
Regulation IV (https://www.valleyair.org/rules/1ruleslist.htm#reg4) was reviewed. There is no rule that applies to snack chip manufacturing operations.

Survey of source tests for snack chip food manufacturing operation permits in the SJVAPCD:

Permits database was queried to identify snack chip ambient air coolers with active permits at snack chip manufacturing operations. The following units were identified. Source tests reports from 2019 to 2021 in permits database are also reviewed.

Facility Name	Permit #	Equipment Description	Source test data/other relevant information
LA TAPATIA TORTILLERIA INC	C-3252-10-0	3.1 MMBTU/HR CASA HERRERA MODEL TCO-150 NATURAL GAS-FIRED OVEN IN SERIES WITH A **CHIP COOLER** AND A CONVEYORIZED OIL FRYER WITH VENTILATION HOOD AND OIL MIST ELIMINATOR, HEAT EXCHANGER, FEEDING SEASONING AND PACKAGING EQUIPMENT	No test data
FRITO-LAY INC	N-1919-1-10	UTC 1 (TORTILLA CHIP) CONSISTING OF TWO PERMIT EXEMPT PRE-COOKERS (STEAM-HEATED), TWO 3.2 MMBTU/HR (EACH) OVENS (DIRECT-FIRED), ONE COOKER (STEAM-HEATED), ONE MECHANICAL SEASONER AND A HEAT & CONTROL **AMBIENT AIR COOLER SERVED BY A HIGH VELOCITY AIR FILTER**. THE WET SCRUBBER SERVES THE SEASONER AND IS SHARED WITH PERMIT UNIT N-1919-2.	No data, permit limits were established based on info in project S-950709
FRITO-LAY INC	S-2076-3-9	CORN CHIP PRODUCTION LINE #1 INCLUDING FRYING VAT WITH VENTILATION HOOD AND MIST ENTRAINMENT SEPARATOR, EXHAUST FAN, FRYER HOOD LIFT, SEASONER, FRYER FINES REMOVAL SCREEN WITH AIR CLEANING SYSTEM, AND **AMBIENT AIR COOLER SERVED BY HIGH VELOCITY AIR FILTER**	Source test 7/28/20 0.025 lb-PM/hr (avg) 0.021 lb-PM10/hr (avg) Process rate = 2,132 lb/hr 0.020 lb-PM10/ton of process rate*

Facility Name	Permit #	Equipment Description	Source test data/other relevant information
FRITO-LAY INC	S-2076-4-9	TORTILLA CHIP LINE #1 WITH CONVEYORIZED OIL FRYER, HEAT EXCHANGER, SEASONER, 6.83 MMBTU/HR NATURAL GAS FIRED CASA HERRERA OVEN, AND **ONE AMBIENT AIR COOLER SERVED BY HIGH VELOCITY DUCT FILTER** AND HEAT RECOVERY AND HOT WATER STORAGE SYSTEM SHARED WITH S-2076-5	Source Test 6/12/19 0.039 lb-PM/hr (avg) 0.036 lb-PM10/hr (avg) Process rate = 2,887 lb/hr 0.025 lb-PM10/ton of process rate*
FRITO-LAY INC	S-2076-5-9	TORTILLA CHIP LINE #2 WITH CONVEYORIZED OIL FRYER, HEAT EXCHANGER, SEASONER, 6.83 MMBTU/HR NATURAL GAS FIRED CASA HERRERA OVEN, AND **ONE AMBIENT AIR COOLER SERVED BY HIGH VELOCITY DUCT FILTER** AND HEAT RECOVERY AND HOT WATER STORAGE SYSTEM SHARED WITH S-2076-4	Source test 7/27/20 0.021 lb-PM10/hr (avg) 0.026 lb-PM/hr (avg) Process rate = 1,961 lb/hr 0.021 lb-PM10/ton of process rate*
FRITO-LAY INC	S-2076-8-11	CORN CHIP PRODUCTION LINE #2 INCLUDING FRYING VAT WITH VENTILATION HOOD AND MIST ENTRAINMENT SEPARATOR, EXHAUST FAN, HEAT EXCHANGER, CIRCULATING PUMP, TRANSFER PUMP, FRYER HOOD LIFT, SEASONER, FRYER FINES REMOVAL SCREEN WITH AIR CLEANING SYSTEM, AND **AMBIENT AIR COOLER SERVED BY HIGH VELOCITY AIR FILTER**	Source test 7/11/19 0.045 lb-PM/hr 0.042 lb-PM10/hr Process rate = 2,021 lb/hr 0.042 lb-PM10/ton of process rate*
FRITO-LAY INC	S-2076-17-8	BAKED LINE #1 INCLUDING A 9.76 MMBTU/HR NATURAL GAS-FIRED BAKING OVEN, 10 MMBTU/HR NATURAL GAS-FIRED PRIMARY DRYER, STEAM HEATED FRYER WITH OIL MIST ELIMINATOR AND **AMBIENT AIR COOLER**	No test data
FRITO-LAY INC	S-2076-19-15	PRETZEL LINE #2 INCLUDING 7.3 MMBTU/HR NATURAL GAS-FIRED BAKING OVEN, 4.0 MMBTU/HR NATURAL GAS-FIRED COATER/DRYING OVEN VENTED TO CYCLONE AND BAGHOUSE, 1.25 MMBTU/HR NATURAL GAS-FIRED FINISHING OVEN, **5370 CFM AMBIENT AIR COOLER**, AND DUST COLLECTION SYSTEM	Source Test 3/4/21 0.012 lb-PM/hr (avg); No PM10 test results reported. Process rate = 1,262 lb/hr 0.019 lb-PM/ton of process rate*

*Value is calculated using average PM10 emission rate and process rate

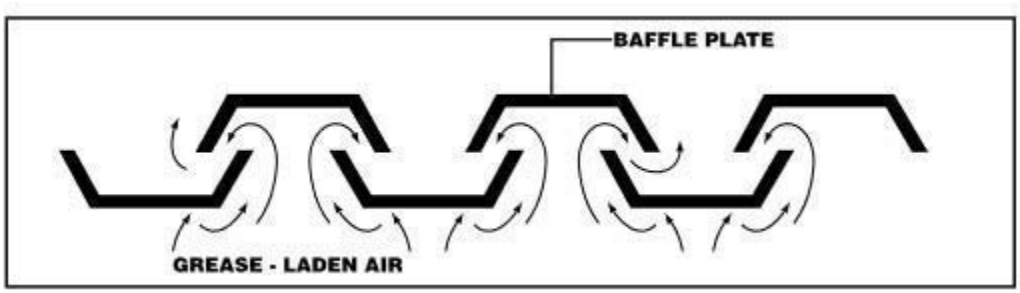
List of Control Options:

Based on the search of *BACT Clearinghouse Survey, Survey of Federal, State and Local Rules and Regulations and Survey of source test for snack chip food manufacturing operation permits,* shown above, the following emission control options were developed:

- High velocity air filters

Information in the project file for permit S-2076-19 revealed that the high velocity air filters serving the ambient cooler are 20” x 20” x 2” oil baffle style filters. It is assumed the other Frito-Lay installations also use similar oil baffle style filters. These filters are believed to reduce at least 70% of particulate matter emissions generated by a snack chip ambient air cooler.

Literature search of an oil baffle filter revealed that baffle filters are very efficient in extracting grease (oil particles) from the exhaust stream[1]. The following schematic shows arrangement of oil baffle filter.



As high velocity laden exhaust air containing moisture and oil particles is discharged through the baffles, heavier particles carried in the air are forced to pass through a narrow channel created using baffle plates. Due to the inertial force of heavier particles greater than air surrounding them, most heavier particles strike the baffle plate with considerable force causing them to splatter on the baffle surface. The lighter particles that are still entrained in the air are subjected to change their direction slightly perpendicular along the baffle plate causing them to impinge onto the inner surfaces of the baffles in the same manner in which the heavier particles impinged on the entering surface. The design of a several baffle surfaces provides impingement surface and rapid direction changes causing most of the oil particles to fall from the laden exhaust air stream. The collected particles (oil grease) flows through the trough which is generally coated with TEFLON coating. The grease slides down to the trough and typically flows into a collecting channel around the filter. The collected grease is periodically emptied from the collecting channels.

Beside the high velocity baffle filters discussed above, other technologies such as water scrubber may also be used.

[1] https://www.filtersales.com/pdf/flame_gard_grease_filters.pdf

Therefore, the following technologies can be used to reduce PM10 emissions from snack chip ambient air cooler:

- High velocity air filters
- Wet scrubber

Step 2 - Eliminate Technologically Infeasible Options

Wet scrubber:
Scrubbers are used to remove air pollutants by inertial or diffusional impaction, reaction with a sorbent or reagent slurry, or by absorption of pollutant(s) into liquid solvent. These devices are commonly employed for controlling inorganic gases[2]. These devices are not used for reducing fine particulate matter because of high liquid to gas ratios (22.4 gallons per 1,000 cubic feet of air) are required[3]. These devices generate additional waste streams that in some cases needs to be hauled to a waste treatment facility creating additional indirect emissions. These devices also require additional electricity, additional space, etc. The lower bound of scrubber's control efficiency is about 70%[3], which is similar to other more prominent technologies such as high velocity filtration system, which do not create such additional waste stream and require additional utilities (waste water, electricity, space etc.). Also, high particulate matter exhaust streams tend to clog these devices[1], which require more frequent maintenance and downtime. Moreover, as noted in s*urvey of source tests for snack chip food manufacturing operation permits in the SJVAPCD* above, none of snack chip ambient air coolers use wet scrubber to reduce particulate matter emissions. Therefore, use of wet scrubber technology is deemed infeasible for the snack chip ambient air cooler systems.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

Pollutant	Achieved in Practice	Technologically feasible	Alternate Basic Equipment
PM10	Use properly engineered high velocity air filtration system with oil baffle type filters, or equivalent filter system (70% control)	None	None

A note on the control effectiveness, Frito-Lay, Inc. will be required to conduct a source test to determine the effectiveness of a high velocity air filtration system.

[2] https://www3.epa.gov/ttncatc1/dir1/fpack.pdf
[3] https://www3.epa.gov/ttncatc1/dir1/fsprytwr.pdf

Source test result may be used to administratively amend/increase the current achieved-in-practice control of 70% listed above.

Step 4 - Cost Effectiveness Analysis

There is no technologically feasible or alternate basic equipment listed in Step 3 above. Therefore, cost-effectiveness analysis is not required.

Step 5 - Select BACT

The BACT for the proposed snack chip ambient air cooler is to use properly engineered high velocity air filtration system capable of reducing at least 70% of PM_{10} emissions.

IV. Recommendation

Upon approval, the attached guideline is recommended to be adopted into District's BACT Clearinghouse.

Appendices

A: Draft BACT Guideline
B: Existing BACT Guideline 5.5.2

Appendix A
Draft BACT Guideline

San Joaquin Valley
Unified Air Pollution Control District
Best Available Control Technology (BACT) Guideline 5.5.2*

Emissions Unit: Snack Chip Ambient Air Cooler **Industry Type:** Food Manufacturing

Equipment Rating: All **Last Update:** October 6, 2022

Pollutant	Achieved-in-Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
PM_{10}	Use properly engineered high velocity air filtration system with oil baffle type filters, or equivalent filter system (70% control)		

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

***This is a Summary Page for this Class of Source - Permit Specific BACT Determinations on Next Page(s)**

Appendix B
Existing BACT Guideline 5.5.2

Best Available Control Technology (BACT) Guideline 5.5.2 A

Emissions Unit:	Tortilla Chip Line, Ambient Air Cooler	**Equipment Rating:**	3300 lb/hr
Facility:	Recot, Inc	**References:**	ATC #: S-2076-21-0 Project #: 950709
Location:	Bakersfield	**Date of Determination:**	10/1/1995

Pollutant	**BACT**
CO	BACT NOT TRIGGERED
NOx	BACT NOT TRIGGERED
PM10	High velocity dust filter (70% control) 0.16 lb/hr
SOx	BACT NOT TRIGGERED
VOC	BACT NOT TRIGGERED

BACT Status	**Comment**
Achieved in Practice	

Appendix D
HRA & AAQA Summary

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

July 8, 2022

Kristie Wdowiak
Frito-Lay, Inc.
600 Garner Road
Modesto, CA 95357

Re: Health Risk Assessment Determination for ATC Project N-1220099

Dear Ms. Wdowiak,

The San Joaquin Valley Air Pollution Control District (District) is currently processing an Authority to Construct (ATC) application for Frito-Lay to install an Onion Fried Snack (OFS) line and a silo to receive and store cornmeal, located at 600 Garner Rd in Modesto, California.

The OFS line includes multiple food-grade material handling operations, steam-heated fryer, seasoner and an ambient air cooler. The cornmeal, starch, buttermilk, and dried seasonings used in the proposed OFS line are all food-grade materials and are not expected to emit any hazardous or toxic compounds. In addition, based on the supporting documentation provided for this ATC project, the District determined the proposed steam-heated fryer is expected to generate de minimis levels of toxics from oxidation of the oil used in the frying process. Therefore, the proposed equipment is not expected to cause any significant health risk to the nearby public.

If you have any questions regarding the HRA, please contact Mr. Kyle Melching at (559) 230-5894 or by email at Kyle.Melching@valleyair.org.

Sincerely,

Brian Clements
Director of Permit Services

Mark Montelongo
Technical Services Manager

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

www.valleyair.org www.healthyairliving.com

San Joaquin Valley Air Pollution Control District
Ambient Air Quality Analysis

To:	Jag Kahlon – Permit Services
From:	Kyle Melching – Technical Services
Date:	September 6, 2022
Facility Name:	FRITO-LAY INC
Location:	600 GARNER RD , MODESTO
Application #(s):	N-1919-22-0 & -23-0
Project #:	N-1220099

1. Summary

1.1 Ambient Air Quality Analysis (AAQA)

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

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

Unit # 22-0

1. The steam-operated fry and ambient air cooler exhaust stacks shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction.

Unit # 23-0

2. No special requirements.

2. Project Description

Technical Services received a request to perform an Ambient Air Quality Analysis (AAQA) for the following:

- Unit -22-0: ONION FRIED SNACK LINE
- Unit -23-0: CORN SILO WITH BIN VENT FILTRATION SYSTEM

3. AAQA Report

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

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

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

Monitoring Stations				
Pollutant	**Station Name**	**County**	**City**	**Measurement Year**
CO	Modesto-14th Street	Stanislaus	Modesto	2018
NOx	Turlock	Stanislaus	Turlock	2018
PM10	Modesto-14th Street	Stanislaus	Modesto	2018
PM2.5	Modesto-14th Street	Stanislaus	Modesto	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**
22	1	N/A	N/A	N/A	0.01	1.63E-04
22	2	N/A	N/A	N/A	0.01	1.63E-04
22	3	N/A	N/A	N/A	0.001	2.04E-05
22	4	N/A	N/A	N/A	0.02	0.01
22	5	N/A	N/A	N/A	0.32	0.01
22	6	N/A	N/A	N/A	0.14	0.003
23	1	N/A	N/A	N/A	0.002	3.41E-05

Emission Rates (lbs/year)						
Unit ID	**Process**	**NOx**	**SOx**	**CO**	**PM10**	**PM2.5**
22	1	N/A	N/A	N/A	68	1.39
22	2	N/A	N/A	N/A	68	1.39
22	3	N/A	N/A	N/A	10	0.02
22	4	N/A	N/A	N/A	219	65.70
22	5	N/A	N/A	N/A	2,811	57.34
22	6	N/A	N/A	N/A	1,205	168.70
23	1	N/A	N/A	N/A	15	0.31

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 2013-2017 from Modesto (rural dispersion coefficient selected) were used for the analysis:

The following parameters were used for the review:

Area Source Parameters						
Unit ID	**Process**	**Unit Description**	**Release Height (m)**	**X-Length (m)**	**Y -Length (m)**	**Area (m^2)**
22	6	Seasoning	13.72	34.36	41.59	1429.03
22	1	Dump Station	13.72	14.25	35.74	509.30
22	2	Use Bin	13.72	28.24	20.58	581.18
22	3	Hopper/Blender	13.72	12.98	36.17	469.49

Point Source Parameters							
Unit ID	**Process**	**Unit Description**	**Release Height (m)**	**Temp. (°K)**	**Exit Velocity (m/sec)**	**Stack Diameter (m)**	**Vertical/ Horizontal/ Capped**
22	4	Fryer	16.15	322	15.46	0.61	Vertical
22	5	Cooler	17.68	380	5.18	0.46	Vertical
23	1	Silo	24.38	294	6.92	0.20	Capped

4. Conclusion

4.1 AAQA

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

5. Attachments

A. Modeling request from the project engineer

B. Additional information from the applicant/project engineer

C. AAQA results

Appendix E
Quarterly Net Emissions Change

Quarterly Net Emissions Change (QNEC)

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

QNEC = PE2 - PE1, where:

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

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

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

N-1919-22-0:

Quarterly NEC [QNEC]			
Pollutant	**PE2 (lb/qtr)**	**PE1 (lb/qtr)**	**QNEC (lb/qtr)**
NO_X	0	0	0
SO_X	0	0	0
PM_{10}	1,095.25	0	1,095.25
CO	0	0	0
VOC	1,003.75	0	1,003.75

N-1919-23-0:

Quarterly NEC [QNEC]			
Pollutant	**PE2 (lb/qtr)**	**PE1 (lb/qtr)**	**QNEC (lb/qtr)**
NO_X	0	0	0
SO_X	0	0	0
PM_{10}	0	0	0
CO	0	0	0
VOC	0	0	0

Appendix F
ERC Withdrawal Calculations

ERC Withdrawal Calculations

VOC:
ERCs in certificate S-3411-1 were banked more than 15 miles away from the Frito-Lay's Modesto plant (N-1919).

VOC	1st Quarter (lb)	2nd Quarter (lb)	3rd Quarter (lb)	4th Quarter (lb)
(A) ERC S-3411-1	4,018	6,573	9,128	9,128
(B) Offsets Required* *(Includes Distance offset ratio 1.5 to 1)	355	355	356	356
Amount Remaining (A-B)	3,663	6,218	8,772	8,772
Credits reissued under ERC S-YYYY-1	3,663	6,218	8,772	8,772

And/Or,

ERCs in certificate S-3426-1 were banked more than 15 miles away from the Frito-Lay's Modesto plant (N-1919).

VOC	1st Quarter (lb)	2nd Quarter (lb)	3rd Quarter (lb)	4th Quarter (lb)
(A) ERC S-3411-1	380	474	377	337
(B) Re-adjustment per section 4.13.8 of Rule 2201	--	--	-19	+19
(C) ERC after re-adjustment	380	474	358	356
(D) Offsets Required* *(Includes Distance offset ratio 1.5 to 1)	355	355	356	356
Amount Remaining (C-D)	25	119	2	0
Credits reissued under ERC S-YYYY-1	25	119	2	0

PM10:
ERCs in certificate S-5255-4 were banked more than 15 miles away from the Frito-Lay's Modesto plant (N-1919).

PM_{10}	1st Quarter (lb)	2nd Quarter (lb)	3rd Quarter (lb)	4th Quarter (lb)
(A) ERC S-5255-4	1,862	1,800	1,800	1,800
(B) Offsets Required* *(Includes Distance offset ratio 1.5 to 1)	1,643	1,643	1,643	1,643
Amount Remaining (A - B)	219	157	157	157
Credits reissued under ERC S-YYYY-4	219	157	157	157