



October 28, 2026

Bianca Gilbert
Frito-Lay Inc
28801 Highway 58
Bakersfield, CA 93314

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
Facility Number: S-2076
Project Number: S-1254817

Dear Ms. Gilbert:

Enclosed for your review is the District's analysis of an application for Authorities to Construct (ATCs) 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 includes installation of a fried cheese puff process line and cornmeal receiving and storage operations.

The notice of preliminary decision for this project has been posted on the District's website (<https://ww2.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 ATCs 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 ATCs, 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: EPA Region 9 Air Permitting Manager (w/enclosure) via EPS

Samir Sheikh
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San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Installation of Snack Food Manufacturing Line and Corn Meal Receiving & Storage Operations

Facility Name: Frito Lay, Inc

Date: October 27, 2026

Mailing Address: 28801 Highway 58
Bakersfield, CA 93314

Engineer: Matthew Robinson

Lead Engineer: James Harader

Facility Contact Person : Bianca Gilbert

Contact Telephone: (661) 328-6060

Contact E-Mail: Bianca.Gilbert@pepsico.com

Application #(s): S-2076-26-0, '-27-0

Project #: S-1254817

Date Deemed Complete: July 14, 2026

I. Proposal

Frito Lay, Inc (referred hereinafter as Frito Lay) has proposed to install equipment for a new Fried Cheese Puff (FCP) snack food manufacturing line, and corn meal receiving and storage operation. The equipment details are as follows:

S-2076-26-0: FCP Line

The process line will include:

- Two (2) corn meal sifters served by a baghouse
- One (1) blending system served by a baghouse
- Eight (8) extruders served by two (2) rotoclones
- One (1) fryer served by an oil mist eliminator and thermal oxidizer/heat exchanger (last item listed below)
- One (1) seasoning system served by a Tri-Mer water scrubber
- One (1) thermal oxidizer/heat exchanger with a 3.1 MMBtu/hr natural gas-fired burner

The thermal oxidizer/heat exchanger system also heats the oil used in the fryer. The District has determined that the system meets the definition of a process heater under District Rule 4307; therefore, the burner system is subject to the applicable requirements of District Rule 4307. Typically, natural gas-fired process heaters subject to Rule 4307 are exempt from permitting via District Rule 2020 Section 6.1 and are instead issued Permit Exempt Equipment Registrations in accordance with District Rule 2250. However, this system is not solely a natural gas-fired process heater – it is also a thermal oxidizer serving the function of an emissions control device for VOC and PM emissions from the fryer. Pursuant to District Rule 2010, equipment which controls the issuance of air contaminants is required to be permitted. Therefore, this system does not wholly fit within the exemption of Rule 2020 Section 6.1 and is required to be permitted.

S-2076-27-0: Corn Meal Receiving and Storage

- Two (2) corn meal storage silos with rail car unloading systems served by a baghouse.

Frito Lay received their renewed Title V Permit on September 9, 2026. This modification can be classified as a Title V Significant Modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Frito Lay 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 (4/20/23)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/20/24)
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 (4/16/26)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4202	Particulate Matter – Emission Rate (12/17/92)
Rule 4301	Fuel Burning Equipment (12/17/92)
Rule 4307	Boilers, Steam Generators, and Process Heaters – 2.0 MMBtu/hr to 5.0 MMBtu/hr (4/21/16)
Rule 4801	Sulfur Compounds (12/17/92)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)	
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines	

III. Project Location

The facility is located at 28801 Highway 58 in Bakersfield, CA. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

S-2076-26-0: FCP Line

Cornmeal will be dispensed from one of two silos and conveyed through a sifter to remove any coarse material. The sifted cornmeal will then be pneumatically conveyed to a blender, where water will be added and the material blended to achieve the desired consistency.

The resulting cornmeal mixture will be transferred to the extruders, where clean air will be injected to expand and puff the cornmeal mixture. The extruded material will then be conveyed

to an oil fryer for frying. Following frying, the corn puffs are transferred to seasoning tumblers, where the desired seasonings will be applied.

The seasoned cheese puffs will then be conveyed to the packaging lines via bucket elevators. The packaged products will subsequently be prepared for shipment and distributed to customers.

S-2076-27-0: Corn Meal Receiving and Storage

Corn meal will be delivered to the facility via railcars. The cornmeal will then be transferred to storage silos using a pneumatic unloading system.

V. Equipment Listing

S-2076-26-0: FRIED CHEESE PUFF PROCESS LINE CONSISTING OF TWO (2) CORNMEAL SIFTERS, ONE (1) CORNMEAL TRANSFER SYSTEM, AND ONE (1) CORNMEAL BLENDING SYSTEM ALL SERVED BY A SCHICK MODEL IQC-8-1250 BAGHOUSE; EIGHT (8) EXTRUDERS SERVED BY TWO ROTOCLOVES; ONE (1) HEAT & CONTROL MODEL CC-1.5 VEGETABLE OIL FRYER SERVED BY AN OIL MIST ELIMINATOR SYSTEM AND A KLEENHEAT 3.1 MMBTU/HR NATURAL GAS-FIRED THERMAL OXIDIZER/HEAT EXCHANGER SYSTEM (PROCESS HEATER); AND ONE (1) SEASONING SYSTEM SERVED BY A TRIMER WET SCRUBBER

S-2076-27-0: CORN MEAL RECEIVING AND STORAGE OPERATION CONSISTING OF ONE (1) RAILCAR UNLOADING SYSTEM AND TWO (2) CORN MEAL SILOS ALL SERVED BY A SCHICK MODEL IQC-6-1250 BAGHOUSE

VI. Emission Control Technology Evaluation

S-2076-26-0:

Corn meal sifters served by bag filters

Corn meal transfer/blending operation served by a bag filter

These operations are served by the IQC-8-1250 baghouse. These filters are expected to reduce at least 99% of the particulate matter emissions. To ensure bag filters are maintained properly, visible emissions from the bag filters will be limited to 5% opacity per guidance in District Policy SSP-1005 (9/16/98).

The following conditions will be included on the permit to ensure proper operation of the baghouse:

- The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
- The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]

- Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
- A spare set of filters for the baghouse shall be maintained on the premises at all times. [District Rule 2201]
- The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
- The baghouse shall operate at all times, when a process it serves operates, with a minimum differential pressure of 0.1 inches water column and a maximum differential pressure of 15 inches water column. [District Rule 2201]
- Differential operating pressure of the baghouse shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201]
- Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201]

Eight Extruders served by two rotoclones

The rotoclones are centrifugal wet scrubbers that are commonly employed to serve this type of extruder. The rotoclones are expected to reduce at least 99% of the particulate matter emissions.

Vegetable oil fryer equipped with oil mist eliminator (OME) and thermal oxidizer

PM

Frito-Lay has proposed to use an OME system to reduce filterable and condensable particulate matter emissions. Per the manufacturer, OMEs are expected to reduce at least 95% of the particulate matter.

VOC

The oil-water mist that is not captured in the OME will pass through a duct to a thermal oxidizer/heat exchanger chamber maintained at or above an established temperature where most of oil mist is expected to combust (oxidize).

Seasoning system with a Tri-Mer orifice water scrubber

Per the manufacturer specification sheet, the Tri-Mer scrubber is expected to reduce at least 99% of particulate matter.

S-2076-27-0:

Corn meal will be delivered to the facility via railcars. The cornmeal will then be transferred to storage silos using a pneumatic unloading system.

Cornmeal silos

Cornmeal unload filter/receiver

Silos and unload filter/receiver are served by the Shick model IQC-6-1250 baghouse equipped with filters capable of reducing at least 99% of particulate matter emissions. Per applicant, the filter manufacturer guarantees an exhaust concentration less than 1 mg/m³. To ensure filters are maintained properly, visible emissions from the baghouse will be limited to 5% opacity per guidance in District Policy SSP-1005 (9/16/98).

The following conditions will be included on the permit to ensure proper operation of the baghouse:

- The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
- The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
- Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
- A spare set of filters for the baghouse shall be maintained on the premises at all times. [District Rule 2201]
- The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
- The baghouse shall operate at all times, when a process it serves operates, with a minimum differential pressure of 0.1 inches water column and a maximum differential pressure of 15 inches water column. [District Rule 2201]
- Differential operating pressure of the baghouse shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201]
- Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201]

VII. General Calculations

A. Assumptions

- To streamline emission calculations, PM_{2.5} emissions are assumed to be equal to PM₁₀ emissions. Only if needed to determine if a project is a Federal major modification for PM_{2.5} will specific PM_{2.5} emission calculations will be performed.
- Other assumptions will be stated as they are made

B. Emission Factors

S-2076-26-0:

Corn meal sifters served by bag filters

Corn meal blending/transfer operation served by a bag filter

These operations are both controlled by the baghouse. The bag filter manufacturer guarantees that their bags will reduce emissions to 1.0 mg-PM/N-m³ (equates to 0.00044 grains/ft³). Thus, the following emission factor will be used for these operation.

$$EF = 0.00044 \text{ gr-PM/dscf}$$

Eight Extruders served by two rotoclones

The emission factor for the extruders served by rotoclones is calculated based on source testing of similar fried cheese puff extruders at Frito-Lay, Inc., Rancho Cucamonga, CA, conducted on March 1-2, 2001. The applicant stated that the extruders at Frito-Lay, Inc., Rancho Cucamonga, CA, are equipped with rotoclones similar to the ones proposed for the Frito-Lay's Bakersfield site. The source test measured emissions of 0.025 lb-PM10/hr when processing 2,100 lb-material/hour, resulting in an emission factor of 1.190×10^{-5} lb-PM10/lb-material. Adding a 20% margin of compliance to the source tested value, the proposed emission factor for this operation is:

$$EF = 1.190 \times 10^{-5} \text{ lb-PM10/lb-material} \times 2,000 \text{ lb/ton} \times 1.2 = 0.029 \text{ lb-PM10/ton-material}$$

Vegetable oil fryer equipped with oil mist eliminator (OME) and thermal oxidizer

The applicant has proposed to establish PM10 and VOC emission factors based on source test results from a similar cheese puff frying operation equipped with similar OME and oxidizer at Frito Lay, Inc, Rancho Cucamonga, CA. The source tested operation differed from the proposed operation in that the thermal oxidizer did not serve the dual purpose of providing primary process heat to the oil fryer. Consequently, the fuel usage rate of the tested thermal oxidizer is expected to have been significantly lower than the dual purpose unit evaluated herein and this source test result would not be expected to fully account for the combustion emissions of the dual purpose unit. Therefore, although a portion of the emissions observed in the source test may have resulted from fuel combustion, this evaluation conservatively accounts for the entirety of fuel combustion emissions separately.

PM10

The source test, conducted on October 29, 2021, measured emissions of 0.023 lb-PM10/hr while processing 4,902 lb-material/hour, resulting in an emission factor of 4.692×10^{-6} lb-PM10/lb-material. Adding a 20% margin of compliance to the source tested value, the proposed PM10 emission factor is:

$$EF = 4.692 \times 10^{-6} \text{ lb-PM10/lb-material} \times 2,000 \text{ lb/ton} \times 1.2 = 0.011 \text{ lb-PM10/ton-material}$$

VOC

The source test, conducted on August 12, 2021, measured emissions of 0.22 lb-VOC/hr when processing 4,894 lb-material/hour, resulting in an emission factor of

4.495×10^{-5} lb-VOC/lb-material. Adding a 20% margin of compliance to the source tested value, the proposed emission factor is:

$$EF = 4.495 \times 10^{-5} \text{ lb-VOC/lb-material} \times 2,000 \text{ lb/ton} \times 1.2 = 0.108 \text{ lb-VOC/ton-material}$$

Seasoning system with a Tri-Mer wet scrubber

This process is served by a wet scrubber that is expected to control 99% of PM₁₀ emissions from the seasoning operation. The applicant has proposed an emission factor of EF of 0.00001 lb-PM/lb-seasoning. This emissions factor was used previously for similar units in District projects N-1193683 and N-1203844. This emission factor was determined by applying a 99% PM₁₀ control efficiency to an uncontrolled emissions factor of 0.001 lb-PM₁₀/lb-seasoning.

$$EF = 0.00001 \text{ lb-PM/lb-seasoning} \times 2,000 \text{ lb/ton} = 0.02 \text{ lb-PM/ton of seasoning}$$

Combustion Emissions (fryer and thermal oxidizer/process heater)

Emission factors for natural gas combustion are summarized in the following table.

Pollutant	EF (lb/MMBtu)	EF (ppmvd @ 3% O ₂)	Source of EFs
NO _x	0.011	9	Proposed
SO _x	0.00285	--	District Policy APR-1720 (12/20/01)
PM ₁₀	0.0076	--	EPA's AP-42 Table 1.4-2
CO	0.0738	100	Proposed
VOC	0.0055	--	EPA's AP-42 Table 1.4-2

S-2076-27-0:

Corn meal silo loading

This operation is served by a baghouse. The bag filter manufacturer guarantees that their bags will reduce emissions to 1.0 mg-PM/N-m³ (equates to 0.00044 grains/ft³). This operation is served by the Shick model IQC-6-1250 baghouse with exhaust rate of 398 scfm, and the facility has proposed a maximum daily throughput of 110 tons/day. The emission factor is calculated as show below:

$$EF = (0.00044 \text{ gr-PM}_{10}/\text{dscf})(398 \text{ scfm})(1,440 \text{ min/day})(1 \text{ lb} / 7,000 \text{ gr}) \div 110 \text{ tons/day} \\ = 0.00033 \text{ lb-PM}_{10}/\text{ton}$$

C. Calculations

1. Pre-Project Potential to Emit (PE1)

S-2076-26-0 & '-27-0:

These units are new emission units. Thus, PE1 = 0 for all pollutants.

2. Post-Project Potential to Emit (PE2)S-2076-26-0:Corn meal sifters, transfer, and blending operation served by bag filters

These operations are served by the Shick model IQC-8-1250 baghouse with an exhaust flow rate of 1,017 scfm. Thus,

$$\begin{aligned}\text{PE2 (lb/hr)} &= \text{EF}(\text{gr-PM}_{10}/\text{dscf}) \times \text{Flow Rate (scfm)} \times 60 \text{ min/hr} \times \text{lb}/7000 \text{ gr} \\ &= (0.00044 \text{ gr-PM}_{10}/\text{dscf})(1,017 \text{ scfm})(60 \text{ min/hr})(\text{lb}/7,000 \text{ gr}) \\ &= 0.00384 \text{ lb-PM}_{10}/\text{hr}\end{aligned}$$

$$\begin{aligned}\text{PE2 (lb/day)} &= \text{EF (gr-PM}_{10}/\text{dscf)} \times \text{Flow Rate (scfm)} \times 1,440 \text{ min/day} \times \text{lb}/7000 \text{ gr} \\ &= (0.00044 \text{ gr-PM}_{10}/\text{dscf})(1,017 \text{ scfm})(1,440 \text{ min/day})(\text{lb}/7,000 \text{ gr}) \\ &= 0.1 \text{ lb-PM}_{10}/\text{day}\end{aligned}$$

$$\begin{aligned}\text{PE2 (lb/yr)} &= \text{EF (gr-PM}_{10}/\text{dscf)} \times \text{Flow Rate (scfm)} \times 60 \text{ min/hr} \times 8,760 \text{ hr/yr} \\ &\quad \times \text{lb}/7000 \text{ gr} \\ &= (0.00044 \text{ gr-PM}_{10}/\text{dscf})(1,017 \text{ scfm})(60 \text{ min/hr})(8,760 \text{ hr/yr})(\text{lb}/7,000 \text{ gr}) \\ &= 34 \text{ lb-PM}_{10}/\text{yr}\end{aligned}$$

Eight Extruders served by two rotoclones

Per applicant, the maximum processing rate for all eight extruders would be 3.75 tons/hr. Thus,

$$\begin{aligned}\text{PE2 (lb/hr)} &= \text{EF (lb-PM}_{10}/\text{ton-material)} \times \text{Process Weight (ton/hr)} \\ &= (0.029 \text{ lb-PM}_{10}/\text{ton-material})(3.75 \text{ ton/hr}) \\ &= 0.109 \text{ lb-PM}_{10}/\text{hr}\end{aligned}$$

$$\begin{aligned}\text{PE2 (lb/day)} &= \text{EF (lb-PM}_{10}/\text{ton-material)} \times \text{Process Weight (ton/hr)} \times 24 \text{ hr/day} \\ &= (0.029 \text{ lb-PM}_{10}/\text{ton-material})(3.75 \text{ ton/hr})(24 \text{ hr/day}) \\ &= 2.6 \text{ lb-PM}_{10}/\text{day}\end{aligned}$$

$$\begin{aligned}\text{PE2 (lb/yr)} &= \text{EF (lb-PM}_{10}/\text{ton-material)} \times \text{Process Weight (ton/hr)} \times 8,760 \text{ hr/year} \\ &= (0.029 \text{ lb-PM}_{10}/\text{ton-material})(3.75 \text{ ton/hr})(8,760 \text{ hr/yr}) \\ &= 953 \text{ lb-PM}_{10}/\text{yr}\end{aligned}$$

Fryer equipped with OME and thermal oxidizer:

Per applicant, the maximum processing rate would be 3.75 tons/hr, 90 tons/day and 32,850 tons/yr. Thus,

PM₁₀:

$$\begin{aligned}\text{PE2} &= \text{EF (lb-PM}_{10}/\text{ton material)} \times \text{Process Rate (tons/hr)} \\ &= 0.011 \text{ lb-PM}_{10}/\text{ton material} \times 3.75 \text{ tons/hr} \\ &= 0.041 \text{ lb-PM}_{10}/\text{hr}\end{aligned}$$

$$\text{PE2} = \text{EF (lb-PM}_{10}/\text{ton material)} \times \text{Process Rate (tons/day)}$$

$$= 0.011 \text{ lb-PM}_{10}/\text{ton of material} \times 90 \text{ tons/day}$$

$$= 1.0 \text{ lb-PM}_{10}/\text{day}$$

$$\text{PE2} = \text{EF (lb-PM}_{10}/\text{ton of material)} \times \text{Process Rate (tons/year)}$$

$$= 0.011 \text{ lb-PM}_{10}/\text{ton of material} \times 32,850 \text{ tons/yr}$$

$$= 361 \text{ lb-PM}_{10}/\text{yr}$$

VOC:

$$\text{PE2} = \text{EF (lb-VOC/ton of material)} \times \text{Process Rate (tons/hr)}$$

$$= 0.108 \text{ lb-VOC/ton of material} \times 3.75 \text{ tons/hr}$$

$$= 0.405 \text{ lb-VOC/hr}$$

$$\text{PE2} = \text{EF (lb-VOC/ton of material)} \times \text{Process Rate (tons/day)}$$

$$= 0.108 \text{ lb-VOC/ton of material} \times 90 \text{ tons/day}$$

$$= 9.7 \text{ lb-VOC/day}$$

$$\text{PE2} = \text{EF (lb-VOC/ton of material)} \times \text{Process Rate (tons/year)}$$

$$= 0.108 \text{ lb-VOC/ton of chips produced} \times 32,850 \text{ tons/yr}$$

$$= 3,548 \text{ lb-VOC/yr}$$

Seasoning system with a Tri-Mer water scrubber

Per applicant, the maximum seasoning usage rate would be 2,000 lb/hr (1 ton/hr), 24 ton/day and 8,760 ton/yr. Thus,

$$\text{PE2} = \text{EF (lb-PM}_{10}/\text{ton-seasoning)} \times \text{Process Rate (tons/hr)}$$

$$= 0.02 \text{ lb-PM}_{10}/\text{ton-seasoning} \times 1 \text{ ton-seasoning/hr}$$

$$= 0.02 \text{ lb-PM}_{10}/\text{hr}$$

$$\text{PE2} = \text{EF (lb-PM}_{10}/\text{ton-seasoning)} \times \text{Process Rate (tons/day)}$$

$$= 0.02 \text{ lb-PM}_{10}/\text{ton-seasoning} \times 24 \text{ ton-seasoning/day}$$

$$= 0.5 \text{ lb-PM}_{10}/\text{day}$$

$$\text{PE2} = \text{EF (lb-PM}_{10}/\text{ton-seasoning)} \times \text{Process Rate (tons/year)}$$

$$= 0.02 \text{ lb-PM}_{10}/\text{ton-seasoning} \times 8,760 \text{ ton-seasoning/yr}$$

$$= 175 \text{ lb-PM}_{10}/\text{yr}$$

Combustion Emissions (fryer and thermal oxidizer)

$$\text{PE2 (lb/hr)} = \text{EF (lb/MMBtu)} \times 3.1 \text{ MMBtu/hr}$$

$$\text{PE2 (lb/day)} = \text{EF (lb/MMBtu)} \times 3.1 \text{ MMBtu/hr} \times 24 \text{ hr/day}$$

$$\text{PE2 (lb/yr)} = \text{EF (lb/MMBtu)} \times 3.1 \text{ MMBtu/hr} \times 8,760 \text{ hr/yr}$$

Pollutant	EF (lb/MMBtu)	PE2 (lb/hr)	PE2 (lb/day)	PE2 (lb/yr)
NOx	0.011	0.034	0.8	299
SOx	0.00285	0.00884	0.2	77
PM ₁₀	0.0076	0.0236	0.6	206
CO	0.0738	0.2288	5.5	2,004
VOC	0.0055	0.0171	0.4	149

Summary:

Daily PE2 Summary S-2076-26-0 (lb/day)						
Pollutant	Corn meal sifter transfer/ blender	Extruders	Fryer	Seasoner	Combustion	Total
NOx	0	0	0	0	0.8	0.8
SOx	0	0	0	0	0.2	0.2
PM10	0.1	2.6	1.0	0.5	0.6	4.8
CO	0	0	0	0	5.5	5.5
VOC	0	0	9.7	0	0.4	10.1

Annual PE2 Summary S-2076-26-0 (lb/yr)						
Pollutant	Corn meal sifter transfer/ blender	Extruders	Fryer	Seasoner	Combustion	Total
NOx	0	0	0	0	299	299
SOx	0	0	0	0	77	77
PM10	34	953	361	175	206	1,729
CO	0	0	0	0	2,004	2,004
VOC	0	0	3,548	0	149	3,697

S-2076-27-0:Corn meal silo loading

$$\begin{aligned}
 \text{PE2 (lb/day)} &= \text{EF (lb-PM}_{10}\text{/ton)} \times \text{Throughput (ton/day)} \\
 &= (0.00033 \text{ lb-PM}_{10}\text{/ton})(110 \text{ ton/day}) \\
 &= 0.036 \text{ lb-PM}_{10}\text{/day}
 \end{aligned}$$

$$\begin{aligned}
 \text{PE2 (lb/yr)} &= \text{EF (lb-PM}_{10}\text{/ton)} \times \text{Throughput (ton/day)} \times 365 \text{ day/yr} \\
 &= (0.00033 \text{ lb-PM}_{10}\text{/ton})(110 \text{ ton/day})(365 \text{ day/yr}) \\
 &= 13 \text{ lb-PM}_{10}\text{/yr}
 \end{aligned}$$

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, including all ERCs held as certificates and all emission reduction credits sold or transferred.

$$\text{SSPE1}_{\text{Total}} = \text{SSPE1}_{\text{Permit Unit}} + \text{TotalERC}$$

There are no ERCs that have been banked at this stationary source. The potential emissions for each permit unit are taken from the application review under project S-1263850.

SSPE1 (lb/year)					
Permit Unit/ERC	NOx	SOx	PM10	CO	VOC
S-2076-1-18	6,938	1,798	8,830	47,304	1,892
S-2076-2-11	0	0	26,618	0	0
S-2076-3-11	0	0	12,352	0	0
S-2076-4-11	5,983	171	7,957	29,915	329
S-2076-5-11	5,983	171	7,957	29,915	329
S-2076-6-11	0	0	2,716	0	0
S-2076-7-8	0	0	0	0	0
S-2076-8-13	0	0	11,972	0	0
S-2076-10-9	0	0	6,132	0	0
S-2076-11-9	1,481	18	106	319	92
S-2076-12-9	1,481	18	106	319	92
S-2076-15-8	0	0	4,380	0	0
S-2076-16-7	0	0	26	0	0
S-2076-17-10	20,639	489	7,446	50,734	682
S-2076-18-8	29,784	263	3,154	32,047	788
S-2076-19-19	8,578	95	2,848	104,792	439
S-2076-20-13	4,417	0	533	60,481	224
S-2076-21-18	5,346	313	4,672	24,454	419
SSPE1	90,630	3,336	107,805	380,280	5,286

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, except for emissions units proposed to be shut down as part of a Stationary Source Project, 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, including all ERCs held as certificates and all emission reduction credits sold or transferred.

SSPE2 (lb/year)					
Permit Unit	NOx	SOx	PM10	CO	VOC
S-2076-1-18	6,938	1,798	8,830	47,304	1,892
S-2076-2-11	0	0	26,618	0	0
S-2076-3-11	0	0	12,352	0	0
S-2076-4-11	5,983	171	7,957	29,915	329
S-2076-5-11	5,983	171	7,957	29,915	329
S-2076-6-11	0	0	2,716	0	0
S-2076-7-8	0	0	0	0	0
S-2076-8-13	0	0	11,972	0	0
S-2076-10-9	0	0	6,132	0	0
S-2076-11-9	1,481	18	106	319	92
S-2076-12-9	1,481	18	106	319	92
S-2076-15-8	0	0	4,380	0	0
S-2076-16-7	0	0	26	0	0
S-2076-17-10	20,639	489	7,446	50,734	682
S-2076-18-8	29,784	263	3,154	32,047	788
S-2076-19-19	8,578	95	2,848	104,792	439
S-2076-20-13	4,417	0	533	60,481	224
S-2076-21-18	5,346	313	4,672	24,454	419
S-2076-26-0 (new ATC)	299	77	1,729	2,004	3,697
S-2076-27-0 (new ATC)	0	0	13	0	0
SSPE2	90,929	3,413	109,547	382,284	8,983

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 51.165

Rule 2201 Major Source Determination (lb/year)						
	NO _x	SO _x	PM ₁₀	*PM _{2.5}	CO	VOC
SSPE1	90,630	3,336	107,805	107,805	380,280	5,286
SSPE2	90,929	3,413	109,547	109,547	382,284	8,983
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	Yes	No	No	No	Yes	No

*PM_{2.5} is conservatively assumed to be equal to PM₁₀ for this determination

As seen in the table above, the facility is an existing Major Source for NO_x and CO. The facility is not becoming a Major Source for additional pollutants as a result of this project.

Rule 2410 (Prevention of Significant Deterioration) 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	45.32	2.64	1.67	190.14	53.91	53.91
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source?	No	No	No	No	No	No

*PM assumed to be equal to PM₁₀.

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

6. Baseline Emissions (BE)

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

Pursuant to District Rule 2201, BE = PE1 for:

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

otherwise,

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

The emissions units in this project are new emissions units. Therefore, BE is 0 for all pollutants.

7. Senate Bill 288 Major Modification

A Senate Bill (SB) 288 Major Modification is a federal major modification under 40 CFR 51.165 as it existed on December 19, 2002. 40 CFR Part 51.165 (12/19/02) defines a Major Modification as any physical change in or change in the method of operation of *an existing 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 a Major Source for NO_x and CO emissions. Thus, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if further SB 288 Major Modification calculation is required. Note that the San Joaquin Valley air basin is in attainment¹ with Federal and State standards for CO emissions. Therefore, SB-288 Major Modification threshold do not exist for this pollutant in Rule 2201, and this project can't trigger SB-288 Major Modification for CO emission increase.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NO _x	299	50,000	No

¹<https://ww2.valleyair.org/air-quality-information/ambient-air-quality-standards-valley-attainment-status/>

Since none of the SB 288 Major Modification Thresholds are surpassed with this project, this project does not constitute an SB 288 Major Modification and no further discussion is required.

8. Federal Major Modification / New Major Source

Federal Major Modification

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

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

Per section VII.C.5 above, this facility is a Major for NO_x and CO emissions. The San Joaquin Valley air basin is in attainment with Federal and State standards for CO emissions. Therefore, Federal Major Modification threshold do not exist for this pollutant in Rule 2201, and this project can't trigger Federal Major Modification for CO emission increase. Federal Major Modification evaluation for NO_x emissions increase is as follows:

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

The project's combined total emission increases are summarized and 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	299	0	Yes

Since there is an increase in NO_x emissions, this project constitutes a Federal Major Modification for NO_x. Consequently, as discussed below in the offset section of this

evaluation, pursuant to Section 4.8.1.1 of District Rule 2201, NO_x internal emission reductions (IER) or other actual emission reductions (AERs) used to satisfy the offset quantity required under District Rule 2201 must surplus at the time of use (ATC issuance).

New Major Source

As demonstrated above, this facility is an existing Major Source for NO_x and CO emissions, and is not becoming a new Major Source for any other pollutant as a result of this project.

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
- VOC

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)						
	NO₂	VOC	SO₂	CO	PM	PM₁₀
Total PE from New and Modified Units	0.15	1.85	0.04	1.00	0.87	0.87
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 D**.

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

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

- a. Any new emissions unit with a potential to emit exceeding 2.0 pounds per day, or the relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding 2.0 pounds per day,
- b. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an Adjusted Increase in Permitted Emissions (AIPE) exceeding 2.0 pounds per day, and/or
- c. 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 or relocated emissions units – PE > 2.0 lb/day

S-2076-26-0:

As seen in Section VII.C.2 above, the applicant is proposing to install a FCP snack food manufacturing line with PE greater than 2.0 lb/day for VOC from the fryer and CO from the process heater/thermal oxidizer, and facility CO emissions are greater than 200,000 lb/year. Thus, BACT is triggered the following emission units²:

- VOC > 2.0 lb/day by the fryer
- CO > 2.0 lb/day by the process heater/thermal oxidizer

S-2076-27-0:

As seen in Section VII.C.2 above, the applicant is proposing to install a corn meal receiving and storage operation with PE less than 2.0 lb/day. Therefore, BACT is not triggered.

² Although the PE2 is 2.6 lb-PM10/day (greater than 2.0 lb-PM10/day) for the eight extruders served by two rotoclones, each extruder is an emission unit and these emissions units operate in parallel. Therefore, the PE2 from each emissions unit is 0.3 lb-PM10/day (less than or equal to 2.0 lb-PM10/day) and BACT is not triggered.

b. Modification of emissions units – AIPE > 2.0 lb/day

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

c. SB 288/Federal Major Modification

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

This means, BACT is triggered for NO_x emissions from the process heater/thermal oxidizer within the production line under S-2076-26-0.

2. BACT GuidelineS-2076-26-0:

The SJVAPCD BACT Clearinghouse includes Guideline 1.6.3: Snack Chip Fryer with Indirect-Fired Heat Transfer System (2/21/2020). However, the scope of guideline 1.6.3 does not include units with rated heat input less than or equal to 5 MMBtu/hr. Therefore, no guidelines were found in the SJVAPCD BACT Clearinghouse that cover the rated size of this specific unit. Thus, a project specific determination is made for the proposed operation for pollutants which have triggered BACT (**Appendix B**)

- Fryer VOC
- Process Heater/Thermal Oxidizer NO_x and CO

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

S-2076-26-0:Fryer

VOC: Use of an Oil Mist Eliminator and Thermal Oxidizer (90% combined VOC and PM10 Control)

As demonstrated in the BACT Analysis, the proposed control equipment is expected to achieve this level of control; therefore, BACT requirements for the fryer are satisfied.

Process Heater/Thermal OxidizerNOx: 9 ppm @ 3% O₂CO: 100 ppmvd @ 3% O₂ and use of PUC quality natural gas fuel

The facility is proposing to meet these emission levels; therefore, BACT requirements for the process heater are satisfied.

B. Offsets**1. District Emission Offset Requirements****a. District Offset Applicability**

Pursuant to District Rule 2201, Section 4.5, District 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 District Rule 2201.

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

District Offset Determination (lb/year)					
	NOx	SOx	PM10	CO	VOC
SSPE2	90,929	3,413	109,547	382,284	8,983
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets Triggered?	Yes	No	Yes	Yes	No

b. District Offset Quantity (DOQ) Required**b.1 NOx**

As shown above, the SSPE2 is greater than the offset thresholds for NOx; therefore, District offsets are triggered for NOx under NSR. However, since this project is a Federal Major Modification for NOx, the District offset exemption from Section 4.6.10 of District Rule 2201 is applicable to this project, and District offsets for NOx are not required.

b.2 PM10

As demonstrated above, the facility has an SSPE1 for PM10 greater than the offset thresholds. Therefore offset calculations will be required for this project.

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) = $(\Sigma[PE2 - BE] + ICCE) \times DOR$, 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 4.9

BE = PE1 for:

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

otherwise,

BE = HAE

As calculated in Section VII.C.6 above, the emissions units in this project are new therefore BE = 0.

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

Offsets Required (lb/year) = $([PE2 - BE]) \times DOR$

Frito-Lay Inc. has proposed to use ERCs that were banked less than 15-miles from their Bakersfield site. Thus, per section 4.9 of Rule 2201, a District offset ratio (DOR) of 1.2 is applicable.

PM10 Offsets Required with DOR					
Permits	PE2 (lb/yr)	BE (lb/yr)	DOR	Offsets Required (lb/yr)	Offset Required (lb/quarter)
S-2076-26-0	1,729	0	1.2	2,075	518.75
S-2076-27-0	13	0	1.2	16	4
Total					522.75

As demonstrated in the calculation above, the quarterly amount of offsets required for S-2076-26-0, 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 $X \div 4 = Y.z$)				
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:

1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Total Annual
522 (518 + 4)	523 (519 + 4)	523 (519 + 4)	523 (519 + 4)	2,091 (2,075 + 16)

The applicant has proposed to use ERCs S-5358-4, S-3412-4, S-5184-4, or a combination thereof. The available quantity of offsets in these certificates is compared to the quantity required in the table below.

ERC#	1 st Quarter (lb)	2 nd Quarter (lb)	3 rd Quarter (lb)	4 th Quarter (lb)
S-5358-4	941	879	878	878
S-3412-4	7,136	7320	7507	7506
S-5184-4	2,500	2,500	2,500	2,500
Total (A)	10,577	10,699	10,885	10,884
(B) Offsets Required* under ATC S-2076-26-0 & '-27-0 *(Includes Distance offset ratio 1.2 to 1)	522 (518 + 4)	523 (519 + 4)	523 (519+ 4)	523 (519+ 4)

As seen in the table above, the total credits in each quarter are more than the amount of offsets required in each quarter. Thus, it is concluded that Frito-Lay has sufficient PM10 credits to offset the PM10 emissions increase from this project.

Proposed Rule 2201 Offset Permit Conditions

The following permit conditions will be added to the ATC permits to enforce the offset requirements:

S-2076-26-0:

- Prior to operating equipment under this Authority to Construct, permittee shall surrender PM10 emission reduction credits for the following quantity of emissions:

1st quarter – 518 lb, 2nd quarter – 519 lb, 3rd quarter – 519 lb, and fourth quarter – 519 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.9 (as amended 4/20/23) for the ERC specified below. [District Rule 2201]

- ERC Certificate Number S-5358-4, S-3412-4, or S-5184-4 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

S-2076-27-0:

- Prior to operating equipment under this Authority to Construct, permittee shall surrender PM10 emission reduction credits for the following quantity of emissions: 1st quarter – 4 lb, 2nd quarter – 4 lb, 3rd quarter – 4 lb, and fourth quarter – 4 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.9 (as amended 4/20/23) for the ERC specified below. [District Rule 2201]
- ERC Certificate Number S-5358-4, S-3412-4, or S-5184-4 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

Please refer to **Appendix F** for further details on the ERC withdrawal calculations.

b.3 CO

As demonstrated above, the facility has an SSPE1 for CO greater than the offset thresholds.

Pursuant to Rule 2201, Section 4.6.1, District Offsets are not required for increases in CO in attainment areas provided the project does not violate the Ambient Air Quality Standards.

As shown in **Appendix C** of this document, the CO emissions increases from this project will not cause a violation of the Ambient Air Quality Standards. Therefore, offsets for CO are not required.

2. Federal Emission Offset Requirements

a. Federal Offset Applicability

As demonstrated in section VII.C.8 above, this project is a Federal Major Modification for NOx. Thus, federal offsets are triggered for this project for NOx.

b. Federal Offset Quantity (FOQ) Required

The Federal Offset Quantity (FOQ) is only calculated for the pollutants for which a project is a Federal Major Modification or a New Major Source as determined above. Pursuant to Section 4.8.4 of District Rule 2201, the federal offset quantity is the sum of the annual emission changes for all new and modified emission units in a project calculated as the potential to emit after the modification (PE2) minus the federal baseline emissions (FBE) for each emission unit times the applicable offset ratio.

$$\text{FOQ} = \sum(\text{PE2} - \text{FBE}) \times \text{offset ratio}$$

Federal Baseline Emissions

Pursuant to Section 3.19 of District Rule 2201, for a given pollutant, federal baseline emissions (FBE) = PE1 for:

- Any Highly-Utilized Emissions Unit,
- Any Fully-Offset Emissions Unit.

otherwise,

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

Since the proposed units (i.e. fryer and thermal oxidizer under S-2076-26-0) releasing NOx emissions are new units, FBE = 0.

Offset Ratio

Per section 4.9.1 of Rule 2201, offset ratio is 1.5:1 since this project is a Federal Major Modification.

Federal Offset Quantity (FOQ)

Therefore, the FOQ is calculated as follows.

$$\text{FOQ} = \text{PE2} \times \text{offset ratio}$$

NOx		Offset Ratio	1.5
Permit No.	Post-Project Potential to Emit (PE2) (lb/year)	Federal Baseline Emissions (lb/year)	Emissions Change (lb/yr)
S-2076-26-0	299	0	299
$\sum(\text{PE2} - \text{FBE}) \text{ (lb/year):}$			299
Federal Offset Quantity (lb/year): $\sum(\text{PE2} - \text{FBE}) \times 1.5$			449
Federal Offset Quantity (tons/year): $\sum(\text{PE2} - \text{FBE}) \times 1.5 \div 2,000$			0.22

3. Other Federal Offset Requirements

As discussed above, this project triggers a Federal Major Modification for NOx and Federal offset quantities are required for this project for NOx. Pursuant to section 4.8.1.1 of District Rule 2201, actual emission reductions used to satisfy federal offset quantities for NOx must be surplus at the time of use (ATC issuance).

Surplus at the Time Of Use Emission Reduction Credits

The applicant has proposed to use ERC certificate S-5253-2 to satisfy the federal offset quantities. Pursuant to the ERC surplus analysis in **Appendix G**, the District has verified that the proposed ERC certificate contains sufficient surplus credits to satisfy the Federal offset quantities for NOx. The quarterly emissions to be offset are summarized as follows:

Federal Offset Quantity (FOQ) Required (lbs)					
Pollutant	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Total Annual
NOx	112	112	112	113	449

The applicant has proposed to use the following emission reduction certificates with the surplus value of credits summarized as follows:

Surplus NOx Value of ERCs Proposed (lbs)					
ERC #	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Total Annual
S-5253-2	6,427	6,614	6,784	6,783	26,608

As discussed above, the facility has sufficient credits to fully offset the NOx emissions increases associated with this project.

Proposed Rule 2201 Federal Offset Permit Conditions

The following permit conditions will be added to the Authority to Construct:

S-2076-26-0:

- Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 112 lb, 2nd quarter - 112 lb, 3rd quarter - 112 lb, and fourth quarter - 113 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.9 (as amended 4/20/23) for the ERC specified below. NOx ERCs used to satisfy the offset quantity required under District Rule 2201 must be surplus at the time of issuance of this ATC and the total quantity of ERCs surrendered shall be calculated based on the ERC surplus value percent discount of each ERC certificate used. [District Rule 2201]

- ERC Certificate Number S-5253-2 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

4. ERC Withdrawal Calculations

The applicant must identify the ERC Certificate(s) to be used to offset the increase of NOx emissions for the project. As previously indicated, the applicant is proposing to use ERC certificate #S-5253-2 to mitigate the increases of NOx 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 SSPE of greater than 20,000 lb/year for any pollutant,
- e. Any project at a minor source which results in an SSPE exceeding 80% of the major source threshold for any pollutant, and/or
- f. Any project which results in a Title V significant permit modification

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

As demonstrated in Section VII.C.8 of this evaluation, this project is a Federal Major Modification. Therefore, public noticing is required for this project for Federal Major Modification purposes.

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 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 (lb/year)					
	NOx	SOx	PM10	CO	VOC
SSPE1	90,630	3,336	107,805	380,280	5,286
SSPE2	90,929	3,413	109,547	382,284	8,983
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Public Notice Required?	No	No	No	No	No

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

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District Rule 2201, the $SSIPE = SSPE2 - SSPE1$. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds (lb/year)					
	NOx	SOx	PM10	CO	VOC
SSPE2	90,929	3,413	109,547	382,284	8,983
SSPE1	90,630	3,336	107,805	380,280	5,286
SSIPE	299	77	1,742	2,004	3,697
SSIPE Public Notice Threshold	20,000	20,000	20,000	20,000	20,000
Public Notice Required?	No	No	No	No	No

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

e. Minor Sources with SSPE Exceeding 80% of Major Source Threshold

Public notification is required for any project for new and/or modified stationary sources at minor source facilities that results in a SSPE exceeding 80% of the major source threshold.

As shown in Section VII.C.5 above, the facility is not a Major Source for SO_x, PM₁₀, and VOC. The following table compares the SSPE1 with the SSPE2 in order to determine if 80% of any major source thresholds for SO_x, PM₁₀, and VOC have been surpassed with this project.

80% of Major Source Thresholds (lb/year)					
	NO_x	SO_x	PM₁₀	CO	VOC
SSPE1	90,630	3,336	107,805	380,280	5,286
SSPE2	90,929	3,413	109,547	382,284	8,983
80% of Major Source Threshold	16,000	112,000	112,000	160,000	16,000
Public Notice Required?	N/A	No	No	N/A	No

As demonstrated above, the SSPE2 did not surpass 80% of the major source threshold for any pollutant emitted by this project; therefore, public noticing for this purpose is not required.

f. Title V Significant Permit Modification

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

2. Public Notice Action

As discussed above, public noticing is required for this project.

This project constitutes a Federal Major Modification for NO_x and constitute a Title V significant modification.

Public notice documents will be submitted to the California Air Resources Board (CARB), United States EPA, and a public notice will be electronically published on the District's website prior to the issuance of the ATCs under this project.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced

by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

Proposed Rule 2201 (DEL) Conditions:

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Corn meal sifting, transfer, and blending served by the Schick model IQC-8-1250 baghouse

- Total PM10 emissions from the corn meal sifting, transfer, and blending operations vented through the baghouse shall not exceed 0.1 pounds during any one day, based on a maximum rated flowrate of 1,017 scfm and an emission factor of 0.00044 grains-PM10/dscf. [District Rule 2201]

Eight Extruders served by two rotoclones

- The combined material process rate for the eight extruders vented through the rotoclones shall not exceed 90 tons in any one day. [District Rule 2201]
- Emissions from the exhaust of the rotoclones serving the eight extruders shall not exceed 0.029 lb-PM10/ton of material processed. [District Rule 2201]

Vegetable oil fryer equipped with oil mist eliminator (OME) and 3.1 MMBtu/hr heater/ oxidizer

- The material process rate for the frying process shall not exceed 90 tons in any one day.
- Combined PM10 emissions from the fryer and the fuel combustion in the process heater/thermal oxidizer, measured at the discharge stack, shall not exceed 0.018 lb-PM10/ton of material processed.³ [District Rule 2201]
- Combined VOC emissions from the fryer and from the fuel combustion in the process heater/thermal oxidizer, measured at the discharge stack, shall not exceed 0.112 lb-VOC/ton of material processed.⁴ [District Rule 2201]
- Emissions from the process heater/thermal oxidizer shall not exceed any of the following limits: 9 ppmvd NOx @ 3% O2 (as NO2), 0.00285 lb-SOx/MMBtu, or 100 ppmvd CO @ 3% O2. [District Rules 2201 and 4307]

Seasoning system with a Tri-Mer water scrubber

- Seasoning usage shall not exceed 24 tons in any one day. [District Rule 2201]
- PM10 emissions from the seasoning system vented through the wet scrubber shall not exceed 0.02 lb-PM10/ton of seasoning. [District Rule 2201]

³ Total = 1.0 (frying process) + 0.6 (fuel combustion in thermal oxidizer) = 1.6 lb-PM10/day. Dividing this by a throughput of 90 tons/day yields a combined limit of 0.018 lb-PM10/ton at the exit of the thermal oxidizer.

⁴ Total = 9.7 (frying process) + 0.4 (fuel combustion in thermal oxidizer) = 10.1 lb-VOC/day. Dividing this by a throughput of 90 tons/day yields a combined limit of 0.112 lb-VOC/ton at the exit of the thermal oxidizer.

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- The amount of corn meal loaded into the silos shall not exceed 220,000 lb/day (110 tons per day). [District Rule 2201]
- PM10 emissions from the silo loading operation served by the baghouse shall not exceed 0.00033 lb-PM10/ton-loaded. [District Rule 2201]

E. Compliance Assurance**1. Source Testing****S-2076-26-0****Corn meal sifters and corn meal blending/transfer operation served by bag filters**

Pursuant to District Policy APR-1705 (4/2/2025) source testing is required for non-combustion equipment served by a baghouse if expected emissions are greater than 30 pounds per day. These emissions units are non-combustion equipment served by a baghouse with expected PM10 emissions less than 30 lb/day. Additionally, the potential emissions are estimated using emission factor provided in vendor's published brochure for filter media. Therefore, no source testing is required.

Eight Extruders served by two rotoclones

Pursuant to District Policy APR-1705 (4/2/2025) source testing is required for units served by a scrubber if expected PM10 emissions are greater than 30 lb/day. These emission units have expected PM10 emissions less than 30 lb/day. Additionally, the potential emissions are estimated using emission factor developed from a source test conducted for a similar set up at Frito-Lay's Rancho Cucamonga, CA site. Therefore, no source testing is required.

Vegetable oil fryer equipped with oil mist eliminator (OME) and thermal oxidizer/process heater**PM10**

The potential emissions have been estimated using an emission factor developed from a source test conducted for a similar set up at Frito-Lay's Rancho Cucamonga, CA site.

This project triggers and requires PM10 offsets. APR-1705 ((4/2/2025) does not specify a criteria for requirement of source testing for PM10 emissions from operations controlled by OME and/or thermal oxidizer, therefore, initial source testing for PM10 will be required to ensure satisfaction of the offset requirements. The applicant has proposed to conduct the initial test within 90 days of producing a sellable product on this manufacturing line. The following conditions are included on the permit:

- Source testing to verify compliance with VOC and PM10 emission limits for the vegetable oil fryer shall be conducted within 90 days of producing a sellable product on this line. [District Rule 2201]

- 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]
- 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]

VOC

District Policy APR-1705 (4/2/2025) requires initial and annual source testing for units equipped with afterburner, thermal incinerator or catalytic incinerator for controlling VOC emissions. APR 1705 allows testing frequency to relax to once every 36 months upon successfully demonstrating compliance on two consecutive annual tests.

Therefore, initial and recurring source testing is required to verify compliance with VOC limits. The applicant has proposed to conduct the initial test within 90 days of producing a sellable product on this manufacturing line.

The following conditions will be included on the permit:

- Source testing to verify compliance with VOC and PM10 emission limits for the vegetable oil fryer shall be conducted within 90 days of producing a sellable product on this line. [District Rule 2201]
- Source testing to verify compliance with VOC emission limit for oil fryer shall be conducted at least once every 12-months. After demonstrating compliance on two consecutive annual source tests when unit is fired on natural gas, the unit shall be tested not less than once every thirty-six months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve months. [District Rule 2201]
- 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]

VOC and PM10 Combined Control Efficiency

The BACT requirement for combined VOC and PM10 control efficiency is based on a control efficiency identified in the Staff Report for District Rule 4692. However, the control efficiency cited in that Staff Report was developed for a different source category—charbroilers—and is based on a mist eliminator and catalytic oxidizer configuration that is not directly representative of the proposed operation. Therefore, applying that control efficiency to the proposed source does not provide a technically appropriate basis for requiring source testing of the actual combined control efficiency.

Furthermore, the proposed operation is not conducive to determining an actual combined VOC and PM10 control efficiency through source testing. First, there is no sampling port upstream of the oil mist eliminator. The oil mist eliminator provides a significant degree of particulate control and may also provide some VOC control. Without a representative upstream sampling location, the uncontrolled VOC and PM10 emission rates cannot be directly measured, and the overall control efficiency of the combined control system cannot be determined through conventional inlet-versus-outlet testing.

Second, the thermal oxidizer also functions as a process heater for the oil used in the frying process. As a result, the combustion emissions measured at the thermal oxidizer outlet are not attributable solely to the destruction of process-generated VOC and PM10 emissions. Based on the size of the equipment relative to thermal oxidizer installations serving similar processes with steam-heated fryers, a significant portion of the outlet combustion emissions is expected to result from the combustion of natural gas required to heat the frying oil, rather than from the process emissions being controlled. Consequently, an inlet-versus-outlet source test would not provide a reliable or meaningful measure of the control efficiency attributable to the process emission control system.

Rather than attempting to establish a control efficiency through source testing under these conditions, the expected combined control efficiency can be evaluated by comparing the permitted controlled emission rates with established uncontrolled emission rates for fryers of this type. As discussed in the BACT Analysis section of this document (Appendix B), this analysis demonstrates that an estimated 90 percent combined VOC and PM control efficiency is expected to be achieved, provided the unit complies with the permitted emission limits at the outlet of the thermal oxidizer.

Based on the lack of a representative upstream sampling location, the dual function of the thermal oxidizer as both an emission control device and process heater, and the resulting inability to reliably distinguish process emissions from combustion emissions during source testing, direct testing of the combined VOC and PM10 control efficiency would not provide a technically meaningful result. Therefore, source testing

to determine the combined control efficiency will not be required. Compliance with the applicable permitted emission limits at the thermal oxidizer outlet, together with the emission-rate analysis presented in Appendix B, will instead provide the appropriate means of demonstrating that the expected level of control is achieved.

NOx and CO

The fryer is heated by the thermal oxidizer/heat exchanger, therefore, the thermal oxidizer/heat exchanger is a 'process heater' per definition in District Rule 4307. Source testing for NOx and CO is discussed in the context of District Rule 4307 in section VIII, later in this evaluation.

SOx

Potential emissions of SOx result natural gas combustion, and are calculated with generally accepted emission factors per District Policy APR-1720. Therefore, no source testing is required.

Seasoning system with a Tri-Mer wet scrubber

Pursuant to District Policy APR-1705 (4/2/2025) source testing is required for units served by a wet scrubber if expected PM10 emissions are greater than 30 lb/day. This emission unit is served by a wet scrubber and has expected PM10 emissions less than 30 lb/day. Additionally, the potential emissions are estimated using emission factor used for similar systems in N-1193683 and N-1203844. Thus, source testing is not required.

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Corn meal silo loading

Pursuant to District Policy APR-1705 (4/2/2025) source testing is required for non-combustion equipment served by a baghouse if expected emissions are greater than 30 pounds per day. These emissions units are non-combustion equipment served by a baghouse with expected PM10 emissions less than 30 lb/day. Additionally, the potential emissions are estimated using emission factor provided in the vendor's published brochure for the proposed filter media. Therefore, no source testing is required.

2. Monitoring

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Corn meal sifters and corn meal blending/transfer operation served by bag filters

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.

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

Eight Extruders served by two rotoclones

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.

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

Vegetable oil fryer equipped with oil mist eliminator (OME) and thermal oxidizer/process heater

The monitoring requirements for the thermal oxidizer/process heater are discussed in the context of Rule 4307.

In addition, the facility is required to continuously monitor the chamber temperature of the thermal oxidizer/heat exchanger system. The following condition is included on the permit:

- The minimum process heater chamber temperature shall be established during the initial source test while demonstrating successful compliance with the VOC emission limit for the fryer. This temperature measurement shall be administratively incorporated in the Permit to Operate. [District Rule 2201]
- The process heater shall be operated at or above the minimum process heater chamber temperature established during the initial source testing. [District Rule 2201]
- The process heater chamber shall be permanently equipped with temperature measurement devices to determine the average chamber temperature. The chamber temperature shall be continuously monitored and recorded at least every 15-minutes. The recorded temperature data shall be averaged over a 30-consecutive-minute block to demonstrate compliance with the established chamber temperature in this permit. Upon detecting any excursion, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2201]

Seasoning system with a Tri-Mer wet scrubber

Water circulation rate (gallon per minute) is required to be monitored at least once a day. The following conditions are included on the permit to operate:

- 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]
- The seasoning system scrubber water circulation rate (gallons per minute) shall be monitored and recorded each day the seasoning system operates. [District Rule 2201]

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The differential pressure of the baghouse will be monitored to ensure proper operation. The following condition is included on the permit:

- The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
- The baghouse shall operate at all times, when a process it serves operates, with a minimum differential pressure of 0.1 inches water column and a maximum differential pressure of 15 inches water column. [District Rule 2201]
- Differential operating pressure of the baghouse shall be monitored and recorded on each day that a process it serves operates. [District Rule 2201]

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201.

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The following condition(s) are listed on the permit to operate:

- The permittee shall maintain records for the process heater: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent by volume and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201 and 4307]
- The owner or operator shall maintain daily records of the process heater chamber temperature. [District Rule 2201]

- The owner or operator shall maintain daily records of: 1) The combined material process rate for the eight extruders in tons; 2) The material process rate for the frying process in tons; and 3) the seasoning usage in tons. [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]
- 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 Rules 1070, 2201, and 4307]

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The following condition(s) are listed on the permit to operate:

- Daily records of corn meal loaded into the silos, in pounds, shall be maintained. [District Rule 2201]
- Differential operating pressure of the baghouse shall be monitored and recorded on each day that a process it serves operates. [District Rule 2201]
- Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201]
- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

4. Reporting

Source test reports are 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 4.15 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 evaluated the proposed project's potential impact on the National Ambient Air Quality Standard (NAAQS) and/or California Ambient Air Quality Standard (CAAQS) in accordance with District Policy APR 1925 (District Rule 2201 AAQA Modeling) and EPA's Guideline for Air Quality Modeling (Appendix W of 40 CFR Part 51).

Based on the results of the AAQA, the project is not expected to cause or contribute to an exceedance of any applicable NAAQS or CAAQS, nor does it exceed applicable Significant Impact Levels (SILs). See AAQA Summary attached as an appendix (**Appendix C**) to this application review for further detail.

The following condition is included in the permit to ensure compliance with the assumptions made for the AAQA:

- The exhaust stacks of the thermal oxidizer, rotoclones, and wet scrubber shall each vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rules 2201 and 4102]

G. Alternate Siting Analysis

The current project occurs at an existing snack chip production and distribution facility. The applicant proposes to install an additional snack chip manufacturing line and an additional corn meal receiving and storage silo.

Siting the proposed operation at the existing facility allows the project to utilize existing infrastructure and site improvements, avoiding the additional construction, land disturbance, and associated environmental impacts that would result from developing a new facility elsewhere. Accordingly, locating the proposed operation at the existing facility is expected to result in fewer overall environmental impacts than constructing and operating an entirely new facility at an alternative location.

H. Compliance Certification

Section 4.16.2 of this Rule requires the owner of a New Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VII above, this project constitutes a Federal Major Modification, therefore, this requirement is applicable.

Frito Lay has stated that there are just two facilities under common ownership, operation, or control which are Major Sources in the state of California. The Major Source facilities are S-2076 (the location of this project) and N-1919 in Modesto. No additional Major Sources were identified under common ownership, operation, or control with Frito Lay. District Compliance Division has confirmed that there are no existing uncorrected Notices of Violation for the Frito Lay facilities. Additionally, Frito Lay has affirmed via compliance certification (**Appendix E**) they are currently in compliance with all applicable emission limitations and standards.

It has been demonstrated satisfactorily that all Major Sources operated Frito Lay are in compliance with all applicable emission limitations and standards.

I. Visibility Impact Analysis

Section 4.16.3 of District Rule 2201 requires the District, in consultation with the designated Federal Land Manager (FLM), to assess the impact of the emissions from New Major Sources and Federal Major Modifications to visibility in the nearest or most affected Mandatory Class I Federal Area (MCFA).

As shown in Section VII.C.8 above, this project is a Federal Major Modification for NO_x, and therefore, a visibility impact assessment under Section 4.16.3 is required. In addition, since this project is a source of one or more of the visibility criteria pollutants (i.e. NO_x, SO_x, and PM₁₀ and sulfuric acid mist) and the increases in those pollutants from this project are greater than the District's NSR significant threshold (i.e. averaging > 0.5 lb/day), visibility modeling is required for this project to determine the potential visibility impact of the project on the MCFA.

Initial Evaluation – Project Location and Distance from MCFA

The first step in conducting visibility modeling is to determine the distance *D* of the project from the closest MCFA.

Depending on the distance from the MCFA, one of the two procedures below shall be used to determine whether a project has the potential to cause an adverse impact to visibility:

- (1) Near Field Assessment (≤ 50 km), or
- (2) Distant/Multi-Source Analysis (> 50 km)

Based on the District's Q/D tracking system, Frito Lay is located near San Rafael Wilderness, which is approximately 71.97 kilometers away from the facility and is the closest MCFA. Thus, Distance (*D*) = 71.97 km.

Since this project is located greater than 50 km from the closest MCFA, *Distant/Multi-Source Analysis* is followed.

Distant/Multi Source Analysis (> 50 km)

This analysis is primarily designed to identify those sources that are unlikely to significantly affect visibility and warrant no further analysis, and those that may adversely impact visibility and warrant further scrutiny.

In this analysis, the following two-step screening technique for assessing visibility impacts will be utilized.

- Step 1) Q/D screening test
- Step 2) Refined modeling using CALPUFF or other model(s) recommended by the FLM

Step 1 streamlines the evaluation process for projects unlikely to have an adverse effect on visibility and allows for a *no adverse impact* determination to be made without refined modeling being required unless requested by the FLM. If the project still requires further review after step 1, step 2 is followed for refined modeling.

Step 1) Q/D Screening Test

Q/D Calculation

Q/D is a ratio of “ Q ”, which is the total emissions (in units of tpy) of pollutants that affect visibility (i.e. NO_x, SO_x, PM₁₀, and sulfuric acid mist) divided by the distance “ D ” in kilometers from the source of emissions to the nearest MCFA. The Q/D screening test is based on the following calculation:

$$(Q/D)_{\text{facility total}} = (Q/D)_{\text{facility baseline}} + (Q/D)_{\text{sum of prior projects}} + (Q/D)_{\text{current project}}$$

Where,

$(Q/D)_{\text{facility baseline}}$ = The $(Q/D)_{\text{facility baseline}}$ is a fixed value for a given facility and is intended to be used “as is” from the District’s Q/D tracking system for purposes of the Q/D screening test.

$(Q/D)_{\text{sum of prior projects}}$ = The $(Q/D)_{\text{sum of prior projects}}$ is the sum of all prior $(Q/D)_{\text{current projects}}$ calculations performed after 8/09/23 (the effective date of the visibility requirements in Rule 2201, Section 4.16.3) with valid ATCs or PTOs. The (Q/D) for any project cancelled by a facility or that expires unimplemented or that is not yet finalized should not be included in this term.

$(Q/D)_{\text{current project}}$ = $(Q/D)_{\text{current project}}$ is based on the maximum 24-hour net increase in NO_x, SO_x, PM₁₀, and sulfuric acid mist emissions for all the units in the project. This daily increase is then annualized to obtain Q in units of tpy. The net 24-hour increase in total NO_x, SO_x, PM₁₀, and sulfuric acid emissions is calculated as follows:

$$\text{Net 24-hour increase} = \sum (\text{PE2}_{\text{daily}} - \text{AE}_{\text{daily}})$$

Where:

$\text{PE2}_{\text{daily}}$ = The sum of all the daily PE2s for each permit unit in this project

AE_{daily} = Actual emissions, as of a particular date, shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the particular date and which is representative of normal source operation. The reviewing authority shall allow the use of a different time period upon a determination that it is more representative of normal source operation

$(Q/D)_{\text{facility baseline}}$

As seen above, the $(Q/D)_{\text{facility baseline}}$ is a fixed value for a given facility. Based on the District's Q/D tracking system, the current value of $(Q/D)_{\text{facility baseline}}$ for this facility is 0.64.

 $(Q/D)_{\text{sum of prior projects}}$

As seen above, the $(Q/D)_{\text{sum of prior projects}}$ is the sum of all prior $(Q/D)_{\text{current projects}}$ calculations performed after 8/09/23 (the effective date of the visibility requirements in Rule 2201, Section 4.16.3) with valid ATCs or PTOs. There have been three ATC projects finalized (S-1263850, S-1243949, and S-1232292) after August 9, 2023 for this facility. However, none of these projects constituted a Federal Major Modification, or New Major Source. As such, these projects have been determined to have no adverse impact, and the $(Q/D)_{\text{current projects}}$ will remain equal zero.

 $(Q/D)_{\text{current project}}$

The operations proposed in this project are new. Therefore, actual emissions are zero.

All NO_x, SO_x, PM₁₀, and sulfuric acid mist emissions from the project are included in the calculation regardless whether the project was determined to be significant for that pollutant. The operation is considered to operate full time, therefore, the annual PE2 represents the daily PE2 time 365.

Therefore, Q for the project can be calculated as follows:

$$Q_{\text{pollutant}} = \sum_{\text{all emission units in the project}} \left[(PE2_{\text{daily}} - AE_{\text{daily}})_{\text{pollutant}} \right] \times \frac{365 \text{ days}}{\text{year}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

$$Q_{\text{pollutant}} = (299 + 77 + 1,729 + 13) \times \frac{1 \text{ ton}}{2,000 \text{ lb}} = 1.06$$

Therefore, $(Q/D)_{\text{current project}}$ is 0.015 (Q value of 1.06 tpy ÷ D value of 71.97 km).

Summary of Q/D

The each of the Q/D values presented above in this section are summarized in the following table:

Q/D Values	
	Values
$(Q/D)_{\text{facility baseline}}$	0.64
$(Q/D)_{\text{sum of prior projects}}$	0.0
$(Q/D)_{\text{current project}}$	0.015

Therefore, $(Q/D)_{\text{facility total}}$ can be determined as follows:

$$\begin{aligned}
 (Q/D)_{\text{facility total}} &= (Q/D)_{\text{facility baseline}} + (Q/D)_{\text{sum of prior projects}} + (Q/D)_{\text{current project}} \\
 &= 0.64 + 0.0 + 0.015 \\
 &= \mathbf{0.66}
 \end{aligned}$$

Q/D Results and Notification of FLM

As seen above, since the $(Q/D)_{\text{facility total}}$ is less than 10.0, FLM notification is not required, and based on the results of the Q/D screening test alone, the District has made a presumptive no adverse impact determination. Therefore, no further analysis to assess visibility impacts from the project is required.

Conclusion

As discussed above, the District has determined that this project does not have the potential to adversely impair visibility in any Mandatory Class I Federal Area. As a result, no further discussion is required.

Rule 2410 Prevention of Significant Deterioration

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

Rule 2520 Federally Mandated Operating Permits

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

Section 3.21.5 states that a minor permit modification is a permit modification that is not a major modification, as defined in Rule 2201. As discussed above, this project triggers a Federal Major Modification. As a result, the proposed project constitutes a Significant Modification to the Title V Permit pursuant to Section 3.30.

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

The following conditions will be included on the ATCs to ensure compliance with this rule.

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

Rule 4001 New Source Performance Standards (NSPS)

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

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

The following condition is included on the permits to ensure compliance.

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

California Health & Safety Code 41700 (General Limitations)

CH&SC Section 41700 states that except as otherwise provided in CH&SC Section 41705, a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property.

The District's health Risk Management Review (RMR) program and policies assist with demonstrating compliance with the aforementioned CH&SC requirements. One of the RMR program goals is to minimize the increase that new and modified stationary sources add to the existing toxic load and any potentially significant public health impacts associated with the release of those airborne toxic emissions. In order to achieve this goal, the District performs a Health Risk Assessment (HRA) to evaluate the health risk of any proposed stationary source ATC permitting project with a potential increase in air toxics emissions. Projects that may cause an increase in hourly, daily, or annual potential to emit of air toxics or projects that could increase the public exposure to air toxics undergo this analysis to ensure the possible adverse health risk on nearby residents or businesses, including the cumulative health risk from past projects dating back to the adoption of the program, does not exceed specified significance levels.

The District's risk management policies are APR 1905 (Risk Management Policy for Permitting New and Modified Sources) and APR 1906 (Framework for Performing Health Risk Assessments). Under District policy, significance levels are established for cancer risk (20 lifetime cases per million population) and acute and chronic risks (hazard index not greater than 1.0). The hazard index represents a ratio of the modeled air toxics concentration(s) at the most impacted receptor divided by the reference exposure level (REL), below which no adverse health effects are expected, even for sensitive individuals). The policy also requires Best Available Control Technology for toxics (TBACT) for emission units that have the potential to cause a greater than *de minimis* increase in cancer risk (equal to or greater than 1.0 case per million population).

Note, toxic air contaminant emissions from the proposed frying operation was determined to be negligible as discussed in **Appendix H**.

The potential health risk from the proposed project is below all established significance thresholds; therefore, the project is approvable under District RMR Policies. See Health Risk Assessment Summary attached as **Appendix C** to this application review for further detail.

The following permit conditions are required to ensure compliance with the assumptions made for the risk management review:

S-2076-26-0:

- The exhaust stacks of the process heater, rotoclones, and wet scrubber shall each vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rules 2201 and 4102]

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

S-2076-26-0:Corn meal sifters served by bag filtersCorn meal blending/transfer operation served by a bag filter

These operations are both controlled by the baghouse. The bag filter manufacturer guarantees that their bags will reduce emissions to 1.0 mg-PM/N-m³ (equates to 0.00044 grains/ft³). The expected concentration is less than 0.1 grains/ft³, therefore, compliance is expected.

Eight Extruders served by two rotoclones

Per applicant, the combined flowrate of the rotoclones is 3,200 cfm. As seen in section VII.C.2 of this document, the combined emissions from the eight extruders is 2.6 lb-PM10/day. Conservatively considering emissions from all eight extruders together, the grain loading of the exhaust is calculated as shown below.

$$\begin{aligned}\text{PM Conc. (gr/scf)} &= \frac{(\text{PM emission rate}) \times (7,000 \text{ gr/lb})}{(\text{Air flow rate}) \times (60 \text{ min/hr}) \times (24 \text{ hr/day})} \\ &= \frac{(2.6 \text{ lb-PM10/day}) \times (7,000 \text{ gr/lb})}{(3,200 \text{ cfm}) \times (60 \text{ min/hr}) \times (24 \text{ hr/day})} \\ &= 0.004 \text{ gr/scf}\end{aligned}$$

The expected concentration is less than 0.1 grains/ft³, therefore, compliance is expected.

Fryer equipped with OME and thermal oxidizer:

This determination conservatively considers the combined emissions from the frying source operation and the process heater source operation. Emission concentration is calculated as shown below.

$$\begin{aligned}\text{PM emissions} &= 0.041 \text{ lb-PM/hr} + 0.0236 \text{ lb-PM/hr} = 0.065 \text{ (per section VII.C.2 above)} \\ \text{Exhaust flow rate} &= 2,700 \text{ scfm (per applicant)}\end{aligned}$$

$$\text{PM} \left(\frac{\text{gr}}{\text{dscf}} \right) = \frac{\left(0.065 \frac{\text{lb-PM}}{\text{hr}} \right) \left(7,000 \frac{\text{gr-PM}}{\text{lb-PM}} \right) \left(\frac{\text{hr}}{60 \text{ min}} \right)}{\left(2,700 \frac{\text{ft}^3}{\text{min}} \right)} = 0.003 \frac{\text{gr-PM}}{\text{dscf}} < 0.1 \frac{\text{gr-PM}}{\text{dscf}}$$

The expected concentration is less than 0.1 grains/ft³, therefore, compliance is expected.

Seasoning system with a Tri-Mer wet scrubber

Emission concentration is calculated as shown below.

$$\begin{aligned}\text{PM emissions} &= 0.02 \text{ lb-PM/hr (per section VII.C.2 above)} \\ \text{Exhaust flow rate} &= 12,000 \text{ scfm (per applicant)}\end{aligned}$$

$$PM \left(\frac{\text{gr}}{\text{dscf}} \right) = \frac{\left(0.02 \frac{\text{lb-PM}}{\text{hr}} \right) \left(7,000 \frac{\text{gr-PM}}{\text{lb-PM}} \right) \left(\frac{\text{hr}}{60 \text{ min}} \right)}{\left(12,000 \frac{\text{ft}^3}{\text{min}} \right)} = 0.0001944 \frac{\text{gr-PM}}{\text{dscf}} < 0.1 \frac{\text{gr-PM}}{\text{dscf}}$$

The expected concentration is less than 0.1 grains/ft³, therefore, compliance is expected.
S-2076-27-0:

Corn Meal Receiving and Storage Operation

The bag filter manufacturer guarantees that their bags will reduce emissions to 1.0 mg-PM/N-m³ (equates to 0.00044 grains/ft³). The expected concentration is less than 0.1 grains/ft³, therefore, compliance is expected.

The following condition will be included on the permits to ensure compliance.

- Particulate matter emissions from each source operation under this permit shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

Rule 4202 Particulate Matter – Emission Rate

Per 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:

$$E_{\text{Max}} = 3.59 P^{0.62}, \text{ for Process weight (P) less than or equal to 30 tons/hr}$$

$$E_{\text{Max}} = 17.31 P^{0.16}, \text{ for Process weight (P) greater than 30 tons/hr}$$

S-2076-26-0:

Corn meal sifters, transfer, and blending operation served by bag filters

The maximum processing rate through these units is expected to be 3.75 tons per hour, same as processing rate for the fryer. Therefore, E_{max} is calculated as shown below.

$$E_{\text{Max}} = 3.59 P^{0.62} = 3.59 \times 3.75^{0.62} = 8.1 \text{ lb-PM/hr}$$

The proposed emission rate is 0.00384 lb-PM/hr per section VII.C.2 above.

Since the proposed emission rate is below the maximum allowable emission rate, compliance is expected.

Eight Extruders served by two roto clones

The maximum processing rate through these units is expected to be 3.75 tons per hour, same as processing rate for the fryer. Therefore, E_{max} is calculated as shown below.

$$E_{\text{Max}} = 3.59 P^{0.62} = 3.59 \times 3.75^{0.62} = 8.1 \text{ lb-PM/hr}$$

The proposed emission rate is 0.109 lb-PM/hr per section VII.C.2 above.

Since the proposed emission rate is below the maximum allowable emission rate, compliance is expected.

Fryer equipped with OME and thermal oxidizer:

As stated in Section VII.C.2 above, the maximum processing rate for this unit is 3.75 tons per hour. Therefore, E_{Max} is calculated as shown below.

$$E_{\text{Max}} = 3.59 P^{0.62} = 3.59 \times 3.75^{0.62} = 8.1 \text{ lb-PM/hr}$$

The proposed emission rate is 0.041 lb-PM/hr per section VII.C.2 above.

Since the proposed emission rate is below the maximum allowable emission rate, compliance is expected.

Seasoning system with a Tri-Mer wet scrubber

As stated in Section VII.C.2 above, the maximum processing rate for this unit is 1 ton per hour. Therefore, E_{Max} is calculated as shown below.

$$E_{\text{Max}} = 3.59 P^{0.62} = 3.59 \times 1^{0.62} = 3.59 \text{ lb-PM/hr}$$

The proposed emission rate is 0.02 lb-PM/hr per section VII.C.2 above.

Since the proposed emission rate is below the maximum allowable emission rate, compliance is expected

S-2076-27-0:

Assuming a lower throughput (tons) results in lower allowable hourly emission rate. For this determination it is conservatively assumed that the throughput is 1 ton/hr. Therefore, E_{Max} is calculated as shown below.

$$E_{\text{Max}} = 3.59 P^{0.62} = 3.59 \times 1^{0.62} = 3.6 \text{ lb-PM/hr}$$

As shown in Section VII.C.2, the potential PM emission rate is calculated based on the maximum exhaust grain loading of the filters, not throughput of the operation. The potential PM emission rate is 0.0015 lb-PM/hr.

The potential PM emission rate is less than the allowable emission rate. Therefore, compliance is expected.

Rule 4301 Fuel Burning Equipment

The provisions of this rule shall apply to any fuel burning equipment except air pollution control equipment which is exempted according to Section 4.0, which provides exemption for fuel burning equipment serving primarily as air pollution control equipment using a combustion process to destroy air contaminants.

The proposed 3.1 MMBtu/hr natural gas fired heat exchanger/thermal oxidizer listed in S-2076-26-0 is to produce heat to heat up the vegetable oil circulated through the heat exchanger tubes. Because the unit provides primary process heat for the operation, it is not primarily air pollution control equipment. Therefore, the unit is subject to this rule.

The requirements are as follows:

- Combustion contaminants (TSP) - Not to exceed 0.1 gr/dscf @ 12% CO₂ and 10 lb/hr.
- SO_x emissions - Not to exceed 200 lb/hr
- NO_x emissions - Not to exceed 140 lb/hr

Hourly NO_x, SO_x and PM emission rates were calculated in section VII.C.2 above. These rates are compared to the rule thresholds below:

NO_x = 0.034 lb-NO_x/hr < 140 lb/hr
 SO_x = 0.0088 lb-SO_x/hr < 200 lb/hr
 PM = 0.024 lb-PM/hr < 10 lb/hr

CO₂ based F-Factor for natural gas combustion is 1,024 dscf/MMBtu at 60°F. Using this factor, along with the permitted emissions, the grain loading would be:

$$PM \left(\frac{\text{gr}}{\text{dscf}} \right) = \frac{\left(0.0076 \frac{\text{lb-PM}}{\text{MMBtu}} \right) \left(7,000 \frac{\text{gr-PM}}{\text{lb-PM}} \right)}{\left(1,024 \frac{\text{ft}^3}{\text{MMBtu}} \right) \left(\frac{100\%}{12\%} \right)} = 0.006 \frac{\text{gr-PM}}{\text{dscf}} < 0.1 \frac{\text{gr-PM}}{\text{dscf}}$$

Since the potential emissions from each unit are below the threshold for each pollutant, compliance is expected with this rule.

Rule 4307 Boilers, Steam Generators and Process Heaters – 2.0 MMBtu/hr to 5.0 MMBtu/hr

Section 2.0 of this rule states that this rule applies to any gaseous fuel or liquid fuel fired boiler, steam generator, or process heater with a total rated heat input of 2.0 million Btu per hour (MMBtu/hr) up to and including 5.0 MMBtu/hr.

The process heater within permit unit S-2076-26-0 is rated at 3.1 MMBtu/hr; therefore, this unit is subject to the requirements of this rule. Only the applicable sections are discussed below:

Section 5.1, Table 2, item II.A requires the new units to achieve 9 ppmvd NO_x @ 3% O₂ (or less) and 400 ppmvd CO @ 3% O₂ (or less). The process heater is not equipped with a Selective Catalytic Reduction system and the facility has not proposed a startup/shutdown period with an alternate startup/shutdown emission factor.

The applicant has proposed to achieve 9 ppmvd NO_x @ 3% O₂ (or less) and 100 ppmvd CO @ 3% O₂ (or less). Therefore, compliance is expected with this section. The following condition(s) will be included in each permit:

- Emissions from the process heater shall not exceed any of the following limits: 9 ppmvd NO_x @ 3% O₂ (as NO₂), 0.00285 lb-SO_x/MMBtu, or 100 ppmvd CO @ 3% O₂. [District Rules 2201 and 4307]

Section 5.3.1 states that to limit particulate matter emissions, an operator shall comply with one of the following requirements:

On and after July 1, 2015, operators shall fire units exclusively on PUC quality natural gas, commercial propane, butane, liquefied petroleum gas, or a combination of such gases; or

On and after July 1, 2015, operators shall limit fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet; or

On and after July 1, 2015, operators shall install and properly operate an emission control system that reduces SO₂ emissions by at least 95% by weight; or limit exhaust SO₂ to less than or equal to 9 ppmv corrected to 3.0% O₂.

The facility has proposed the use of PUC quality natural gas. Therefore, compliance is expected with this section. The following condition is included on the permit to ensure on-going compliance:

- The burners in the process heater/thermal oxidizer shall only be fired on PUC-quality natural gas. [District Rules 2201, 4307, and 4801]

Section 5.4.1 states for the units not equipped with a NO_x exhaust control, the duration of each startup and each shut down shall not exceed one hour. The applicant has not proposed an alternate emission factor during startup/shutdown. These burners will likely take just a few minutes before they achieve their proposed steady state emissions. Therefore, startup/shutdown time is not established in the permit.

Section 5.5.1 requires that units subject to the emission limits of Section 5.1 the operator shall:

Monitor, at least once a month, the operational characteristics recommended by the manufacturer and approved by the APCO; and

Tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. In lieu of tuning the unit, operators shall monitor the emissions with a portable NO_x analyzer and adjust the unit's operating parameters accordingly to assure compliance with the emission limits of this rule.

The following condition(s) will be included in the permit:

- The owner/operator shall monitor, at least once a month, the process heater/thermal oxidizer for the operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307]

- The owner/operator shall have the process heater/thermal oxidizer tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rule 4307]
- If the process heater/thermal oxidizer does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4307]
- In lieu of tuning the process heater twice each calendar year, the owner/operator shall monitor the stack concentration of NO_x, CO, and O₂ utilizing a portable analyzer that meets District specifications at least twice each calendar year and adjust the unit's operating parameters accordingly to assure compliance with the emission limits in this permit. The emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4307]

Section 5.6 requires compliance determination to verify compliance with NO_x and CO emission limits. The following conditions will be included in each permit:

- All emissions measurements shall be made with the process heater operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. [District Rule 4307]
- For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081 and 4307]

Section 6.1 requires that the records shall be maintained and retained for five calendar years. The records shall be made available to the APCO, ARB and EPA upon request.

Section 6.1.2 requires the operator of any unit subject to the applicable requirements of Sections 5.2.1.1, 5.5.1.1, and 5.5.1.2 shall maintain records to verify that tune-up and monitoring of the operational characteristics of the unit have been performed.

The following conditions will be included in the permit to ensure on-going compliance with the above sections:

- The owner/operator shall maintain records to verify that the required monitoring of the operational characteristics, and tune-ups or testing using portable analyzer has been performed. [District Rule 4307]
- The permittee shall maintain records for the process heater: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent by volume and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201 and 4307]
- Tune-up records shall include: 1) date of tune-up, 2) name of technician performing tune-up and company affiliation, and 3) any corrective action taken. [District Rules 2201 and 4307]
- All records shall be maintained and retained on-site for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4307]

Section 6.2 lists various test methods.

Section 6.3.1 requires the operator shall conduct an initial source test at the time of installation and/or modification for each non-certified unit or each non-certified retrofit control technology to demonstrate compliance with the applicable certification emission limits in Section 5.1. Units demonstrating compliance are eligible for certification under the provisions of Section 9.0.

The following conditions will be included in the permit:

- Source testing to measure NO_x and CO emissions from the process heater shall be conducted within 90 days of producing a sellable product on this line. [District Rules 2201 and 4307]
- NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4307]
- CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4307]
- Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4307]

Section 7.0 lists compliance schedule. The proposed unit is expected to be operating in compliance after the startup.

Compliance is expected with this rule.

Rule 4801 Sulfur Compounds

Section 3.1 states that a person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding a concentration of two-tenths (0.2) percent by volume calculated as sulfur dioxide (SO₂) at the point of discharge on a dry basis averaged over 15 consecutive minutes.

$$\frac{(2,000 \text{ ppmvd}) \left(8,578 \frac{\text{dscf}}{\text{MMBtu}} \right) \left(64 \frac{\text{lb-SO}_x}{\text{lb-mol}} \right)}{\left(379.5 \frac{\text{dscf}}{\text{lb-mol}} \right) (10^6)} \cong 2.9 \frac{\text{lb-SO}_x}{\text{MMBtu}}$$

The proposed use of PUC quality natural gas contain no more than 1.0 gr-S/100 scf, which equates to an emission factor of 0.00285 lb-SO_x/MMBtu. Since this emission factor is less than the emissions of 2.9 lb-SO_x/MMBtu, 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)

The County of Kern (County) is the public agency having principal responsibility for approving the Project. As such, the County served as the Lead Agency for the Project. The County determined the project to be exempt from CEQA according to Public Resources Code §21080(b)(1) (Division Application to Discretionary Projects; Nonapplication: Negative Declarations; Environmental Impact Report Preparation), CA Code of Regulations §15268 (Ministerial Projects), §15061(b)(3) (Review for Exemption), and §15183 (Projects Consistent with a Community Plan or Zoning). Consistent with CA Code of Regulations (CEQA Guidelines) §15062, a Notice of Exemption was prepared and adopted by the County. Pursuant to CEQA Guidelines §15381, the District is a Responsible Agency for the Project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201). The Project complies with all applicable District rules and regulations and 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)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC S-2076-26-0 and '-27-0 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
S-2076-26-0	3020-02-F	3.1 MMBtu/hr	\$854
S-2076-27-0	3020-01-D	157 hp electric motors	\$443

XI. Appendices

- A: Draft ATCs
- B: BACT Analysis – snack chip fryer with indirect heat transfer system
- C: HRA Summary and AAQA Summary
- D: Quarterly Net Emissions Change
- E: Compliance Certification
- F: ERC Withdrawal Calculations
- G: ERC Surplus Analysis
- H: Fryer Toxic Air Contaminants

APPENDIX A

Draft ATCs



AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-2076-26-0

LEGAL OWNER OR OPERATOR: FRITO-LAY INC
MAILING ADDRESS: 28801 HIGHWAY 58
BAKERSFIELD, CA 93314-9000

LOCATION: 28801 HIGHWAY 58
BAKERSFIELD, CA 93314

EQUIPMENT DESCRIPTION:

FRIED CHEESE PUFF PROCESS LINE CONSISTING OF TWO (2) CORNMEAL SIFTERS, ONE (1) CORNMEAL TRANSFER SYSTEM, AND ONE (1) CORNMEAL BLENDING SYSTEM ALL SERVED BY A SCHICK MODEL IQC-8-1250 BAGHOUSE; EIGHT (8) EXTRUDERS SERVED BY TWO ROTOCLOONES; ONE (1) HEAT & CONTROL MODEL CC-1.5 VEGETABLE OIL FRYER SERVED BY AN OIL MIST ELIMINATOR SYSTEM AND A KLEENHEAT 3.1 MMBTU/HR NATURAL GAS-FIRED THERMAL OXIDIZER/HEAT EXCHANGER SYSTEM (PROCESS HEATER); AND ONE (1) SEASONING SYSTEM SERVED BY A TRI-MER WET SCRUBBER

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Particulate matter emissions from each operation under this permit shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. Visible emissions from the baghouse shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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

S-2076-26-0 : 10/19/2026 7:25:23 AM - ROBINSON : Joint Inspection NOT Required

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Conditions for S-2076-26-0 (continued)

Page 2 of 5

6. Visible emissions from baghouse 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
7. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
10. A spare set of filters for the baghouse shall be maintained on the premises at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The baghouse shall operate at all times, when processes associate with the baghouse operate, with a minimum differential pressure of 0.1 inches water column and a maximum differential pressure of 15 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Differential operating pressure of the baghouse shall be monitored and recorded on each day that a process associated with the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Visible emissions from each rotoclone 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
16. Visible emissions from each rotoclone 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
17. The exhaust stacks of the process heater, rotoclones, and wet scrubber shall each vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
18. Total PM10 emissions from the corn meal sifting, transfer, and blending operations vented through the baghouse shall not exceed 0.1 pounds during any one day, based on a maximum rated flowrate of 1,017 scfm and an emission factor of 0.00044 grains-PM10/dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The combined material process rate for the eight extruders vented through the rotoclones shall not exceed 90 tons in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Emissions from the exhaust of the rotoclones serving the eight extruders shall not exceed 0.029 lb-PM10/ton of material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The material process rate for the frying process shall not exceed 90 tons in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Combined PM10 emissions from the fryer and from the fuel combustion in the process heater/thermal oxidizer, measured at the discharge stack, shall not exceed 0.018 lb-PM10/ton of material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Combined VOC emissions from the fryer and from the fuel combustion in the process heater/thermal oxidizer, measured at the discharge stack, shall not exceed 0.112 lb-VOC/ton of material processed. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

Conditions for S-2076-26-0 (continued)

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24. Emissions from the process heater/thermal oxidizer shall not exceed any of the following limits: 9 ppmvd NO_x @ 3% O₂ (as NO₂), 0.00285 lb-SO_x/MMBtu, or 100 ppmvd CO @ 3% O₂. [District Rules 2201 and 4307] Federally Enforceable Through Title V Permit
25. Seasoning usage shall not exceed 24 tons in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
26. PM₁₀ emissions from the seasoning system vented through the wet scrubber shall not exceed 0.02 lb-PM₁₀/ton of seasoning. [District Rule 2201] Federally Enforceable Through Title V Permit
27. The burners in the process heater/thermal oxidizer shall only be fired on PUC-quality natural gas. [District Rules 2201, 4307 and 4801] Federally Enforceable Through Title V Permit
28. The owner/operator shall monitor, at least once a month, the process heater for the operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307] Federally Enforceable Through Title V Permit
29. The owner/operator shall have the process heater tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rule 4307] Federally Enforceable Through Title V Permit
30. If the process heater/thermal oxidizer does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4307] Federally Enforceable Through Title V Permit
31. In lieu of tuning the process heater twice each calendar year, the owner/operator shall monitor the stack concentration of NO_x, CO, and O₂ utilizing a portable analyzer that meets District specifications at least twice each calendar year and adjust the unit's operating parameters accordingly to assure compliance with the emission limits in this permit. The emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4307] Federally Enforceable Through Title V Permit
32. All emissions measurements shall be made with the process heater/thermal oxidizer operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. [District Rule 4307] Federally Enforceable Through Title V Permit
33. The permittee shall maintain records for the process heater: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent by volume and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201 and 4307] Federally Enforceable Through Title V Permit
34. The owner/operator shall maintain records to verify that the required monitoring of the operational characteristics, tune-ups, or testing using portable analyzer has been performed. [District Rule 4307] Federally Enforceable Through Title V Permit
35. Tune-up records shall include: 1) date of tune-up, 2) name of technician performing tune-up and company affiliation, and 3) any corrective action taken. [District Rules 2201 and 4307] Federally Enforceable Through Title V Permit
36. 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
37. 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

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CONDITIONS CONTINUE ON NEXT PAGE

Conditions for S-2076-26-0 (continued)

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38. Source testing to verify compliance with VOC and PM10 emission limits for the vegetable oil fryer shall be conducted within 90 days of producing a sellable product on this line. [District Rule 2201] Federally Enforceable Through Title V Permit
39. Source testing to verify compliance with VOC emission limit for oil fryer shall be conducted at least once every 12-months. After demonstrating compliance on two consecutive annual source tests when unit is fired on natural gas, the unit shall be tested not less than once every thirty-six months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve months. [District Rule 2201] Federally Enforceable Through Title V Permit
40. Source testing to measure NOx and CO emissions from the process heater shall be conducted within 90 days of producing a sellable product on this line. [District Rule 2201 and 4307] Federally Enforceable Through Title V Permit
41. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081 and 4307] Federally Enforceable Through Title V Permit
42. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4307] Federally Enforceable Through Title V Permit
43. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4307] Federally Enforceable Through Title V Permit
44. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4307] Federally Enforceable Through Title V Permit
45. 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
46. 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]
47. 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]
48. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
49. The minimum process heater chamber temperature shall be established during the initial source test while demonstrating successful compliance with the VOC limits in this permit. This temperature measurement shall be administratively incorporated in the Permit to Operate. [District Rule 2201] Federally Enforceable Through Title V Permit
50. The process heater shall be operated at or above the minimum chamber temperature established during the initial source testing. [District Rule 2201] Federally Enforceable Through Title V Permit
51. The process heater chamber shall be permanently equipped with temperature measurement devices to determine the average chamber temperature. The chamber temperature shall be continuously monitored and recorded at least every 15-minutes. The recorded temperature data shall be averaged over a 30-consecutive-minute block to demonstrate compliance with the established chamber temperature in this permit. Upon detecting any excursion, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

Conditions for S-2076-26-0 (continued)

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52. 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
53. 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
54. The owner or operator shall maintain daily records of the process heater chamber temperature. [District Rule 2201] Federally Enforceable Through Title V Permit
55. The owner or operator shall maintain daily records of: 1) The combined material process rate for the eight extruders in tons; 2) The material process rate for the frying process in tons; and 3) the seasoning usage in tons. [District Rule 2201] Federally Enforceable Through Title V Permit
56. 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
57. 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 Rules 1070, 2201, and 4307] Federally Enforceable Through Title V Permit
58. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM10 emission reduction credits for the following quantity of emissions: 1st quarter - 518 lb, 2nd quarter - 519 lb, 3rd quarter - 519 lb, and fourth quarter - 519 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.9 (as amended 4/20/23) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
59. ERC Certificate Number S-5358-4, S-3412-4, or S-5184-4 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
60. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 112 lb, 2nd quarter - 112 lb, 3rd quarter - 112 lb, and fourth quarter - 113 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.9 (as amended 4/20/23) for the ERC specified below. NOx ERCs used to satisfy the offset quantity required under District Rule 2201 must be surplus at the time of issuance of this ATC and the total quantity of ERCs surrendered shall be calculated based on the ERC surplus value percent discount of each ERC certificate used. [District Rule 2201] Federally Enforceable Through Title V Permit
61. ERC Certificate Number S-5253-2 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

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AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-2076-27-0

LEGAL OWNER OR OPERATOR: FRITO-LAY INC
MAILING ADDRESS: 28801 HIGHWAY 58
BAKERSFIELD, CA 93314-9000

LOCATION: 28801 HIGHWAY 58
BAKERSFIELD, CA 93314

EQUIPMENT DESCRIPTION:

CORN MEAL RECEIVING AND STORAGE OPERATION CONSISTING OF ONE (1) RAILCAR UNLOADING SYSTEM AND TWO (2) CORN MEAL SILOS ALL SERVED BY A SCHICK MODEL IQC-6-1250 BAGHOUSE

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions from each source operation under this permit shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. Visible emissions from baghouse shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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

S-2076-27-0 : 10/14/2026 1:09:35 PM - ROBINSON : Joint Inspection NOT Required

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

Conditions for S-2076-27-0 (continued)

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8. A spare set of filters for the shall be maintained on the premises at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Differential operating pressure of the baghouse shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The baghouse shall operate at all times, when the process it serves operates, with a minimum differential pressure of 0.1 inches water column and a maximum differential pressure of 15 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
14. PM10 emissions from the silo loading operation served by the baghouse shall not exceed 0.00033 lb-PM10/ton-loaded. [District Rule 2201]
15. The amount of corn meal loaded into the silos shall not exceed 220,000 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Daily records of corn meal loaded into the silos, in pounds, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
18. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM10 emission reduction credits for the following quantity of emissions: 1st quarter - 4 lb, 2nd quarter - 4 lb, 3rd quarter - 4 lb, and fourth quarter - 4 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.9 (as amended 4/20/23) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
19. ERC Certificate Number S-5358-4, S-3412-4, or S-5184-4 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

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APPENDIX B

BACT Analysis – Snack Chip Fryer with Indirect Heat Transfer System

Snack Chip Fryer with Indirect Heat Transfer System **Frying Process - VOC:**

VOC results from volatilization and/or off gassing of VOC compounds from the snack chip material being fried and/or the fryer oil.

Step 1: Identify All Possible Control Technologies

The following BACT clearinghouses were consulted to determine whether any such operations have been required to employ emission controls to reduce VOC emissions:

- EPA RACT/BACT/LAER clearinghouse
- CARB BACT clearinghouse
- South Coast AQMD BACT clearinghouse
- Bay Area AQMD BACT clearinghouse
- Sacramento Metro AQMD BACT Clearinghouse

EPA RACT/BACT/LAER clearinghouse

The following process types were searched:

- 19.600 – Misc. Boilers, Furnaces, Heaters, and 19.900 – Other Misc. Combustion

No relevant BACT guidelines were found.

CARB BACT clearinghouse

The following categories were searched:

- Dryer or oven, direct or indirect
- Heater-other process
- Miscellaneous manufacturing

No relevant BACT guidelines were found.

South Coast AQMD BACT clearinghouse

The existing determinations under “Part B: Section I – SCAQMD LAER/BACT” were reviewed. No relevant BACT guidelines were found.

The existing determinations under “Part B: Section II – Other LAER/BACT” were reviewed. No relevant BACT guidelines were found.

The existing determinations under “Part B: Section III – Other LAER/BACT” were reviewed. No relevant BACT guidelines were 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 guidelines were 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 guidelines were found. However, page 56, states “other burners” are required to comply with applicable SCAQMD rules (Refer to SIP Approved Rule Survey below).

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 guidelines were found.

Sacramento Metro AQMD BACT Clearinghouse

The BACT guidelines available on Sacramento Metro AQMD website were reviewed (<https://airia.airquality.org/bact-determinations>).

No relevant BACT guidelines were found.

SJVAPCD BACT clearinghouse

The requirements in District BACT guideline 1.6.3 - Snack Chip Fryer with Indirect Heat Transfer System (2/21/2020) are summarized in the following table:

Pollutant	Achieved in Practice	Technologically feasible	Alternate Basic Equipment
VOC	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)	

SIP Approved Rule Survey:

The SIP approved rules of SCAQMD, BAAQMD, SMAQMD, and SJVAPCD were also reviewed for requirements applicable to snack chip frying processes. No relevant requirements were identified.

Permitted fryers in the SJVAPCD:

Multiple snack chip fryers are permitted within SJVAPCD. Active permitted units and their VOC controls are summarized in the table below.

Permit	Equipment	Control Device (Control Efficiency)	Source Tested
PTO N-1919-7-9	Fryer - Sun Chips	Oil Mist Eliminator (0%)	No
PTO N-1919-8-8	Fryer – Cheese Puffs	Oil Mist Eliminator (0%)	No
PTO N-1919-18-0	Fryer – Cheese Puffs	Oil Mist Eliminator (0%)	No
PTO N-1919-22-3	Fryer – Onion Snack	Oil Mist Eliminator (0%)	No
ATC N-1919-24-0	Fryer – Corn Chip	Oil Mist Eliminator and Thermal Oxidizer (87% - VOC only)	No (pending)
PTO S-2076-2-11	Fryer – Potato Chip	Oil Mist Eliminator (0%)	No
PTO S-2076-3-11	Fryer – Corn Chip	Oil Mist Eliminator (0%)	No
PTO S-2076-4-11	Fryer – Tortilla Chip	None (0%)	No
PTO S-2076-5-11	Fryer – Tortilla Chip	None (0%)	No
PTO S-2076-8-13	Fryer – Corn Chip	Oil Mist Eliminator (0%)	No
PTO S-2076-21-18	Fryer – Tortilla Chip	Oil Mist Eliminator (0%)	No

None of the permitted fryers have been tested for VOC control efficiency. Although oil mist eliminators have typically been conservatively assigned a 0% control efficiency for VOCs, a modest VOC control would be expected given that some of the oil would be expected to be contained in the mist or in the flue as aerosols. The highest attributed VOC control efficiency was 87% for ATC N-1919-24-0; source testing of this unit for VOC is still pending and was required since the facility triggered offset requirements for VOCs. Furthermore, that test will only to determine the VOC control efficiency; whereas the BACT requirements for snack chip fryers have historically been based upon a combined VOC and PM10 control value.

List of Control Options:

Based on the search of *BACT Clearinghouse Survey*, *SIP Approved Rule Survey*, and *Source test survey of fryers in the SJVAPCD*, the following emission control options were identified:

Range Capacity	VOC (Technologically feasible)	Source
All	90% control (Combined VOC and PM control by thermal oxidizer, or equal)	Proposed by Applicant
All	85% control (Combined VOC and PM control by thermal oxidizer, or equal);	SJVAPCD Guideline 1.6.3 (2/21/2020)
All	80% control (combined VOC and PM control by carbon adsorber, or equal)	SJVAPCD Guideline 1.6.3 (2/21/2020)

It should be noted that none of the above control efficiencies have been verified by testing, as this type of equipment is often not conducive to testing for control efficiency when equipped with a control device. Rather, these are included in the BACT Analysis for the purpose of ranking control options. The 80% Achieved in Practice combined VOC and PM control value was

estimated using EPA published control estimates for carbon adsorption units. The 85% combined VOC and PM control by a thermal oxidizer was estimated in the District Rule 4692 staff report for charbroiling operations, and applied to the chip fryer BACT through technology transfer despite being a very different emissions source. The combined control efficiency of the proposed oil mist eliminator and thermal oxidizer control system is conservatively estimated below.

Pollutant	Uncontrolled Frying EF (lb/Ton)	Uncontrolled EF Source	Controlled Frying EF (lb/ton)	Source
VOC	0.49	Source Testing at Rancho Cucamonga August 12, 2021	0.11	Applicant Proposal
PM	0.8 (filterable + condensable)	AP-42 Table 9.13.3-2 Continuous deep fat-fryer– other snack chips	0.018	Applicant Proposal
Combined VOC & PM	1.29		0.128	

Step 2 - Eliminate Technologically Infeasible Options

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

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

Rank	Range Capacity	VOC (Technologically feasible)	Source
1	All	90% control (Combined VOC and PM control by oil mist eliminator and a thermal oxidizer, or equal)	Proposed by Applicant
2	All	85% control (Combined VOC and PM control by thermal oxidizer, or equal);	SJVAPCD Guideline 1.6.3 (2/21/2020)
3	All	80% control (combined VOC and PM control by carbon adsorber, or equal)	SJVAPCD Guideline 1.6.3 (2/21/2020)

Step 4 - Cost Effectiveness Analysis

The facility has proposed a control option that satisfies the most stringent technologically feasible control (listed in the table above). Therefore, cost effectiveness analysis is not required for options listed in Step 3.

Step 5 - Select BACT

The facility has proposed the frying process with the use of an oil mist eliminator and a thermal oxidizer as controls. Thus, BACT for VOC is satisfied.

Snack Chip Fryer with Indirect Heat Transfer System **Thermal Oxidizer / Heat Exchanger – NOx:**

NOx results from combustion of fuel in the burner.

Step 1: Identify All Possible Control Technologies

The following BACT clearinghouses were consulted to determine whether any such operations have been required to employ emission controls to reduce NOx emissions:

- EPA RACT/BACT/LAER clearinghouse
- CARB BACT clearinghouse
- South Coast AQMD BACT clearinghouse
- Bay Area AQMD BACT clearinghouse
- Sacramento Metro AQMD BACT Clearinghouse

EPA RACT/BACT/LAER clearinghouse

The following process types were searched:

- 19.600 – Misc. Boilers, Furnaces, Heaters, and 19.900 – Other Misc. Combustion

No relevant BACT guidelines were found.

CARB BACT clearinghouse

The following categories were searched:

- Dryer or oven, direct or indirect
- Heater-other process
- Miscellaneous manufacturing

No relevant BACT guidelines were found.

South Coast AQMD BACT clearinghouse

The existing determinations under “Part B: Section I – SCAQMD LAER/BACT” were reviewed. No relevant BACT guidelines were found.

The existing determinations under “Part B: Section II – Other LAER/BACT” were reviewed. No relevant BACT guidelines were found.

The existing determinations under “Part B: Section III – Other LAER/BACT” were reviewed. No relevant BACT guidelines were 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 guidelines were 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 guidelines were found. However, page 56, states “other

burners” are required to comply with applicable SCAQMD rules (Refer to SIP Approved Rule Survey below).

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 guidelines were found.

Sacramento Metro AQMD BACT Clearinghouse

The BACT guidelines available on Sacramento Metro AQMD website were reviewed (<https://airia.airquality.org/bact-determinations>).

No relevant BACT guidelines were found.

SJVAPCD BACT clearinghouse

The requirements in District BACT guideline 1.6.3 - Snack Chip Fryer with Indirect Heat Transfer System (2/21/2020) are summarized in the following table:

Pollutant	Achieved in Practice	Technologically feasible	Alternate Basic Equipment
NO _x	9 ppmvd@ 3% O ₂ for units greater than 5 MMBtu/hr to less than 20 MMBtu/hr 7 ppmvd @ 3% O ₂ for units greater than 20 MMBtu/hr		

This guideline does not include requirements for units with rated heat input capacity under 5 MMBtu/hr.

SIP Approved Rule Survey:

The SIP approved rules of SCAQMD, BAAQMD, SMAQMD, and SJVAPCD were also reviewed for requirements applicable to snack chip frying processes.

South Coast AQMD

Rule 1146.1 - Emissions Of Oxides Of Nitrogen From Small Industrial, Institutional, And Commercial Boilers, Steam Generators, And Process Heaters

This rule applies to boilers, steam generators, and process heaters that are greater than 2 MMBtu/hr and less than 5 MMBtu/hr rated heat input capacity used in all industrial, institutional, and commercial operations.

Agency	Category	NOx (ppmvd @ 3% O ₂)	CO (ppmvd @ 3% O ₂)
SCAQMD Rule 1146.1 (12/7/2018)	NG-fired non-atmospheric units	9	400

Bay Area AQMD***Regulation 9, Rule 7 – Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional and Commercial Boilers, Steam Generators and Process Heaters***

This rule applies to boilers, steam generators, and process heaters used in all industrial, institutional, and commercial operations.

Agency	Category	NOx (ppmvd @ 3% O ₂)	CO (ppmvd @ 3% O ₂)
BAAQMD Regulation 9, Rule 7 (4/24/2018)	Gaseous fuel (except landfill or digester gas), >2 to 5 MMBtu/hr	30	400

Sacramento Metro AQMD Rule 411***Rule 411 - NOx From Boilers, Process Heaters And Steam Generators***

The requirements of this Rule shall apply to units (i.e., boilers, steam generators and process heaters) fired on gaseous or nongaseous fuels with a rated heat input capacity of 1 million Btu per hour or greater. NOx and CO limits for relevant to the unit evaluated in this project are shown below:

Agency	Range (MMBtu/hr)	NOx (ppmvd @ 3% O ₂)	CO (ppmvd @ 3% O ₂)
Sac Metro AQMD Rule 411 (8/23/2007)	≥1 to <5	30	400

SJVAPCD Rule 4307***Rule 4307 – Boilers, Steam Generators, and Process Heaters – 2.0 MMBtu/hr to 5.0 MMBtu/hr***

This rule applies to any gaseous fuel or liquid fuel fired boiler, steam generator, or process heater with a total rated heat input greater than or equal to 2.0 million Btu per hour and less than or equal to 5.0 million Btu per hour. NOx and CO limits relevant to the unit evaluated in this project are shown below:

Agency	Category	NOx (ppmvd @ 3% O ₂)	CO (ppmvd @ 3% O ₂)
SJVAPCD Rule 4307 (4/21/2016)	Non-atmospheric units	9	400

Permitted fryers in the SJVAPCD:

Multiple snack chip fryers are permitted within SJVAPCD. However, none of these snack chip fryers include a process heater under 5 MMBtu/hr powering the fryer.

List of Control Options:

Based on the search of BACT Clearinghouse Survey, SIP Approved Rule Survey, and permitted units within SJVAPCD the following was identified as the most stringent applicable control requirement.

Source	NOx Standard
SCAQMD Rule 1146.1 (12/7/2018), SJVAPCD Rule 4307 (4/21/2016)	9 ppm @ 3% O ₂

Step 2 - Eliminate Technologically Infeasible Options

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

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

Rank	NOx (Technically feasible)	Source
1	9 ppm @ 3% O ₂	SCAQMD Rule 1146.1 (12/7/2018), SJVAPCD Rule 4307 (4/21/2016)

Step 4 - Cost Effectiveness Analysis

The facility has proposed the most stringent option identified above. Therefore, cost effectiveness analysis is not necessary.

Step 5 - Select BACT

The facility has proposed NOx emissions less than or equal to 9 ppmvd @ 3% O₂. The proposed control level is equal to the highest control level identified in this survey. Therefore, BACT is satisfied.

Snack Chip Fryer with Indirect Heat Transfer System **Thermal Oxidizer / Heat Exchanger – CO:**

CO results from combustion of fuel in the burner.

Step 1: Identify All Possible Control Technologies

The following BACT clearinghouses were consulted to determine whether any such operations have been required to employ emission controls to reduce CO emissions:

- EPA RACT/BACT/LAER clearinghouse
- CARB BACT clearinghouse
- South Coast AQMD BACT clearinghouse
- Bay Area AQMD BACT clearinghouse
- Sacramento Metro AQMD BACT Clearinghouse

EPA RACT/BACT/LAER clearinghouse

The following process types were searched:

- 19.600 – Misc. Boilers, Furnaces, Heaters, and 19.900 – Other Misc. Combustion

No relevant BACT guidelines were found.

CARB BACT clearinghouse

The following categories were searched:

- Dryer or oven, direct or indirect
- Heater-other process
- Miscellaneous manufacturing

No relevant BACT guidelines were found.

South Coast AQMD BACT clearinghouse

The existing determinations under “Part B: Section I – SCAQMD LAER/BACT” were reviewed. No relevant BACT guidelines were found.

The existing determinations under “Part B: Section II – Other LAER/BACT” were reviewed. No relevant BACT guidelines were found.

The existing determinations under “Part B: Section III – Other LAER/BACT” were reviewed. No relevant BACT guidelines were 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 guidelines were 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 guidelines were found. However, page 56, states “other burners” are required to comply with applicable SCAQMD rules (Refer to SIP Approved Rule Survey below).

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 guidelines were found.

Sacramento Metro AQMD BACT Clearinghouse

The BACT guidelines available on Sacramento Metro AQMD website were reviewed (<https://airia.airquality.org/bact-determinations>).

No relevant BACT guidelines were found.

SJVAPCD BACT clearinghouse

The requirements in District BACT guideline 1.6.3 - Snack Chip Fryer with Indirect Heat Transfer System (2/21/2020) are summarized in the following table:

Pollutant	Achieved in Practice	Technologically feasible	Alternate Basic Equipment
CO	100 ppmvd @ 3% O ₂ and use of PUC quality natural gas		

This guideline does not include requirements for units with rated heat input capacity under 5 MMBtu/hr.

SIP Approved Rule Survey:

The SIP approved rules of SCAQMD, BAAQMD, SMAQMD, and SJVAPCD were also reviewed for requirements applicable to snack chip frying processes.

South Coast AQMD

Rule 1146.1 - Emissions Of Oxides Of Nitrogen From Small Industrial, Institutional, And Commercial Boilers, Steam Generators, And Process Heaters

This rule applies to boilers, steam generators, and process heaters that are greater than 2 MMBtu/hr and less than 5 MMBtu/hr rated heat input capacity used in all industrial, institutional, and commercial operations.

Agency	Category	NO _x (ppmvd @ 3% O ₂)	CO (ppmvd @ 3% O ₂)
SCAQMD Rule 1146.1 (12/7/2018)	NG-fired non-atmospheric units	9	400

Bay Area AQMD***Regulation 9, Rule 7 – Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional and Commercial Boilers, Steam Generators and Process Heaters***

This rule applies to boilers, steam generators, and process heaters used in all industrial, institutional, and commercial operations.

Agency	Category	NOx (ppmvd @ 3% O ₂)	CO (ppmvd @ 3% O ₂)
BAAQMD Regulation 9, Rule 7 (4/24/2018)	Gaseous fuel (except landfill or digester gas), >2 to 5 MMBtu/hr	30	400

Sacramento Metro AQMD Rule 411***Rule 411 - NOx From Boilers, Process Heaters And Steam Generators***

The requirements of this Rule shall apply to units (i.e., boilers, steam generators and process heaters) fired on gaseous or nongaseous fuels with a rated heat input capacity of 1 million Btu per hour or greater. NOx and CO limits for relevant to the unit evaluated in this project are shown below:

Agency	Range (MMBtu/hr)	NOx (ppmvd @ 3% O ₂)	CO (ppmvd @ 3% O ₂)
Sac Metro AQMD Rule 411 (8/23/2007)	≥1 to <5	30	400

SJVAPCD Rule 4307***Rule 4307 – Boilers, Steam Generators, and Process Heaters – 2.0 MMBtu/hr to 5.0 MMBtu/hr***

This rule applies to any gaseous fuel or liquid fuel fired boiler, steam generator, or process heater with a total rated heat input greater than or equal to 2.0 million Btu per hour and less than or equal to 5.0 million Btu per hour. NOx and CO limits relevant to the unit evaluated in this project are shown below:

Agency	Category	NOx (ppmvd @ 3% O ₂)	CO (ppmvd @ 3% O ₂)
SJVAPCD Rule 4307 (4/21/2016)	Non-atmospheric units	9	400

Permitted fryers in the SJVAPCD:

Multiple snack chip fryers are permitted within SJVAPCD. However, none of these snack chip fryers include a process heater under 5 MMBtu/hr powering the fryer.

List of Control Options:

Based on the search of BACT Clearinghouse Survey, SIP Approved Rule Survey, and permitted units within SJVAPCD the following was identified as the most stringent applicable control requirement.

Source	CO Standard
SJVAPCD BACT Guideline 1.6.3 (2/21/2020)	100 ppmvd @ 3% O ₂ and use of PUC quality natural gas fuel
SCAQMD Rule 1146.1 (12/7/2018), BAAQMD Reg. 9, Rule 7 (4/24/2018) SMAQMD Rule 411 (8/23/2007) SJVAPCD Rule 4307 (4/21/2016)	400 ppmvd @ 3% O ₂

Step 2 - Eliminate Technologically Infeasible Options

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

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

Rank	CO Standard	Source
1	100 ppmvd @ 3% O ₂ and use of PUC quality natural gas fuel	SJVAPCD BACT Guideline 1.6.3 (2/21/2020)
2	400 ppmvd @ 3% O ₂	SCAQMD Rule 1146.1 (12/7/2018), BAAQMD Reg. 9, Rule 7 (4/24/2018) SMAQMD Rule 411 (8/23/2007) SJVAPCD Rule 4307 (4/21/2016)

Step 4 - Cost Effectiveness Analysis

The facility has proposed the most stringent option identified above. Therefore, cost effectiveness analysis is not necessary.

Step 5 - Select BACT

The facility has proposed CO emissions less than or equal to 100 ppmvd @ 3% O₂ and the use of PUC quality natural gas fuel. The proposed control level is equal to the highest control level identified in this survey. Therefore, BACT is satisfied.

APPENDIX C

HRA Summary and AAQA Summary

San Joaquin Valley Air Pollution Control District Health Risk Assessment Summary

Facility Name: FRITO-LAY INC
Facility ID, Project #: S-2076, S-1254817

This Health Risk Assessment (HRA) Summary is provided as an attachment to the Engineering Evaluation supporting the Authority to Construct permitting project.

1. Overview

Under the District RMR policies (APR-1905 and APR-1906), the potential public health impacts associated with air toxic emissions from the proposed project were evaluated. This review ensures the project complies with the District's health risk policies and that the evaluation is protective of nearby residents, workers, and sensitive populations such as schools and homes.

Using conservative, health-protective assumptions and state-recommended risk assessment methods, the District determined that the project's potential health risks are **below established significance thresholds**.

The RMR process includes:

- a) Characterizing and estimating the project's potential air emissions from pollutants with associated health risk values as defined by the California Office of Environmental Health Hazard Assessment (OEHHA).
- b) Performing a screening level "Prioritization" using the prioritization methodology outlined in the California Air Pollution Control Officers Association (CAPCOA) Facility Prioritization Guidelines. A facility's priority status is determined using the prioritization thresholds listed in District Policy APR-1905. If the post-project cumulative facility increase in prioritization score is equal to or less than 1, the project is approvable with no further assessment. If a facility's total prioritization score exceeds 1, then an HRA is required.
- c) If applicable, performing an HRA using air dispersion modeling and risk assessment default inputs listed in District Policy APR-1906 and the District's Modeling Guidance. These methods use conservative and health protective assumptions consistent with statewide risk assessment guidance and are designed for protection of public health when estimating potential impacts.
- d) Determine whether the project triggers Toxic Best Available Control Technology (T-BACT). For new or modified emission units that exceed a cancer risk of one in a million, T-BACT must be implemented for the permit.

2. Executive Summary

Since the post-project cumulative facility prioritization score is less than one (See Prioritization Results table below), the project is **not expected to result in a significant health risk**. Therefore, the project is approved.

Table 1. Prioritization Results

Permit #	Cancer Prioritization Score	Chronic Prioritization Score	Acute Prioritization Score
S-2076-26-0	0.03	0.00	0.00
Receptor Distance Bin	100 to <250 m	100 to <250 m	100 to <250 m
Incremental Project Total	0.03	0.00	0.00
Post-Project Cumulative Facility Total	0.03	0.00	0.00
Significance Threshold	≤ 1	≤ 1	≤ 1
Below Facility Threshold	Yes	Yes	Yes

3. Air Toxic Emissions

Air toxics emissions for this project were calculated using the following methods:

- Natural gas usage rates for the proposed operation were provided by the Permit Engineer. These usage rates were speciated into air toxics using emission factors derived from the table, "Natural Gas Fired External Combustion Equipment", in the 2001 report, Ventura County Air Pollution Control District AB 2588 Combustion Emission Factors.

Table 2. Estimated Potential Air Toxics from Project

Pollutant	Hourly Emissions (lbs/hr)	Annual Emissions (lbs/yr)
Acetaldehyde	1.33E-05	1.17E-01
Acrolein	8.37E-06	7.33E-02
Benzene	2.48E-05	2.17E-01
Ethyl benzene	2.94E-05	2.58E-01
Formaldehyde	5.27E-05	4.62E-01
Hexane	1.95E-05	1.71E-01
Naphthalene	9.30E-07	8.15E-03
PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	3.10E-07	2.72E-03
Propylene	2.27E-03	1.99E+01
Toluene	1.13E-04	9.94E-01
Xylenes (mixed)	8.43E-05	7.39E-01

4. Permit Requirements Based on HRA

To ensure that the potential risk does not exceed the levels evaluated in the risk assessment and that health risks remain below established significance thresholds, the following shall be included as permit requirements:

Unit # 26-0 Thermal Oxidizer

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

San Joaquin Valley Air Pollution Control District

Ambient Air Quality Analysis Summary

Facility Name: FRITO-LAY INC
Facility ID, Project #: S-2076, S-1254817

1. Overview

The District evaluated the proposed project's potential impact 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 applies a progressive three level approach to perform AAQAs. The first level (Level 1) uses a very conservative approach. If this analysis indicates a likely exceedance of an AAQS or Significant Impact Level (SIL), the analysis proceeds to the second level (Level 2) which implements a more refined approach. For the 1-hour NO₂ standard, there is also a third level that can be implemented if the Level 2 analysis indicates a likely exceedance of an AAQS or SIL. This progressive framework ensures that potential impacts are evaluated conservatively at the screening stage and refined as necessary to provide a thorough and health-protective assessment.

The modeling analysis predicts the maximum ground-level 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 detailed source parameters, including emission rates.

2. Ambient Air Quality Analysis (AAQA) Results Summary

Table 1. Air Quality Standard (State/Federal)

Pollutant	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass	N/A	Pass	N/A	N/A
NO _x	Pass	N/A	N/A	N/A	Pass
SO _x	Pass	N/A	N/A	Pass	Pass
PM ₁₀	N/A	N/A	N/A	Pass	Pass
PM _{2.5}	N/A	N/A	N/A	Pass	Pass

The project is **not expected to cause or contribute to an exceedance of any applicable NAAQS or CAAQS, nor does it exceed applicable Significant Impact Levels (SILs).**

AAQA Clarifications

- The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2) unless otherwise noted below.
- Modeled PM₁₀ concentrations were below the District SIL for non-fugitive

sources of 5 µg/m³ for the 24-hour average concentration and 1 µg/m³ for the annual concentration.

- Modeled PM_{2.5} concentrations were below the District SIL for non-fugitive sources of 1.2 µg/m³ for the 24-hour average concentration and 0.13 µg/m³ for the annual concentration.

AAQA Monitoring Site

Ambient air concentrations of criteria pollutants are measured 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 monitoring stations were used for this evaluation:

Table 2. Monitoring Stations

Pollutant	Station Name	County	City	Measurement Year
CO	Bakersfield-Muni	Kern	Bakersfield	2023
NOx	Bakersfield-California	Kern	Bakersfield	2023
PM ₁₀	Bakersfield-California	Kern	Bakersfield	2023
PM _{2.5}	Bakersfield-California	Kern	Bakersfield	2023
SOx	Fresno - Garland	Fresno	Fresno	2023

3. Proposed Permit Conditions

To ensure that the emissions do not exceed any established ambient air quality standards, the following shall be included as permit requirements:

Unit # 26-0 Thermal Oxidizer, Rotocyclone, Tri-mer wet scrubber

- The 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.

4. Meteorological Data & Air Dispersion Modeling Parameters

Dispersion modeling was performed using the U.S. EPA's AERMOD model. Detailed stack parameters and site-specific meteorological data were used to predict how emissions disperse. The meteorological data and modeling parameters utilized for the project HRA were also utilized for this AAQA analysis.

APPENDIX D

Quarterly Net Emissions Change (QNEC)

Quarterly Net Emissions Change (QNEC)

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

$PE_{\text{quarterly}} = PE_{\text{annual}} \div 4 \text{ quarters/year}$

S-2076-26-0:

Quarterly NEC [QNEC]			
Pollutant	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NOx	74.75	0	74.75
SOx	19.25	0	19.25
PM10	432.25	0	432.25
CO	501	0	501
VOC	924.25	0	924.25

S-2076-27-0:

Quarterly NEC [QNEC]			
Pollutant	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NOx	0	0	0
SOx	0	0	0
PM10	3.25	0	3.25
CO	0	0	0
VOC	0	0	0

APPENDIX E

Compliance Certification



October 16, 2026

Mr. Matthew Robinson
San Joaquin Valley Air Pollution Control District
4800 Enterprise Way
Modesto, CA 95356
Work: 209-557-6454
E-mail: Matthew.Robinson@valleyair.org

Subject: Compliance Statement for Frito-Lay, Inc.
Facility ID: S-2076
Project ID: 1254817

Dear Mr. Pierce:

On behalf of Frito-Lay, Inc. (Frito-Lay), Yorke Engineering, LLC (Yorke) is pleased to provide the following Compliance Statement to meet the additional requirements specified in Section 4.16.2 of Rule 2201 for Federal Major Modifications.

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

Facility #1 Frito-Lay, Inc (S-2076)
28801 Highway 58
Bakersfield, CA 93314

Facility #2 Frito-Lay, Inc. (N-1919)
600 Garner Road
Modesto, CA 95357

A Certification of Truth and Accuracy for the Compliance Statement above is included as an attachment to this letter.

Thank you for the opportunity to provide additional information to support this application. We look forward to working with the SJVAPCD to ensure all regulatory requirements are achieved by this project.

Should you have any questions or concerns, please contact me at (559) 365-8099.

Sincerely,

A handwritten signature in black ink, appearing to read "Carla Jo", is written over a light blue circular background.

Carla Prasetyo Jo, PE, CAPP
Senior Engineer
Yorke Engineering, LLC
cjo@YorkeEngr.com

Mr. Nick Pierce, SJVAPCD
October 16, 2026
Page 2 of 2

cc: Bianca Gilbert, Frito-Lay
Ronald Creason, Frito-Lay
MaKayla Elliot, Frito-Lay
Cameron Palmer, Frito-Lay
Jessica Mohatt, Yorke Engineering, LLC.

Attachment: Certification of Truth and Accuracy

**San Joaquin Valley
Unified Air Pollution Control District****Certification of Truth and Accuracy**

Company Name: Frito-Lay Inc.

Facility ID: S-2076

I declare, under penalty of perjury under the laws of the state of California that based on information and belief formed after reasonable inquiry, the statements and information provided in the document are true, accurate, and complete:


Signature of Responsible Official10/16/26
Date

Ronald Creason

Name of Responsible Official (please print)

Environmental Health and Safety Manager

Title of Responsible Official (please print)

APPENDIX F

ERC Withdrawal Calculations

NOx	1st Quarter (lb)	2nd Quarter (lb)	3rd Quarter (lb)	4th Quarter (lb)
ERC S-5253-2	6,427	6,614	6,784	6,783
Offsets Required (Includes distance offset ratio)	112	112	112	113
Amount Remaining	6,315	6,502	6,672	6,670
Credits reissued under ERC S-YYYY-2	6,315	6,502	6,672	6,670

PM10	1st Quarter (lb)	2nd Quarter (lb)	3rd Quarter (lb)	4th Quarter (lb)
ERC S-5358-4	941	879	878	878
S-3412-4	7,136	7320	7507	7506
S-5184-4	2,500	2,500	2,500	2,500
Total (A)	10,577	10,699	10,885	10,884
Offsets Required (Includes distance offset ratio)	522 (518 + 4)	523 (519 + 4)	523 (519+ 4)	523 (519+ 4)
Amount Remaining	10,055	10,176	10,362	10,361
Credits reissued under ERC N-YYYY-4	10,055	10,176	10,362	10,361

APPENDIX G

ERC Surplus Analysis

San Joaquin Valley Air Pollution Control District

Surplus ERC Analysis

Facility Name: Frito-Lay, Inc.
Mailing Address: 28801 Highway 58
Bakersfield, CA 93314

Date: October 19, 2026
Engineer: Matthew Robinson
Lead Engineer: James Harader

Contact Person: Bianca Gilbert
Telephone: (661) 328-6060

ERC Certificate #: S-5253-2

ERC Surplus Project #: S-1264137

Surplus ERC Analysis

I. Proposal

Frito-Lay, Inc. has proposed usage of the following Emission Reduction Credit (ERC) to provide the surplus ERC required to satisfy the Federal Offset requirements of this project. Therefore, the District has performed an analysis of the current surplus value of the following Emission Reduction Credit (ERC) certificate:

Proposed ERC Certificate(s)	
Certificate #	Criteria Pollutant
S-5253-2	NOx

The purpose of this analysis is to ensure that the emission reductions on this ERC certificate are surplus of all applicable Federal requirements; therefore, this analysis establishes the surplus value of the ERC certificate as of the date of this analysis. The current face value and surplus value of the ERC certificate evaluated in this analysis are summarized in the following table:

Criteria Pollutant: NOx

ERC Certificate S-5253-2				
Pollutant	1 st Qtr. (lb/qtr)	2 nd Qtr. (lb/qtr)	3 rd Qtr. (lb/qtr)	4 th Qtr. (lb/qtr)
Current Value	6,427	6,614	6,784	6,783
Surplus Value	6,427	6,614	6,784	6,783

II. Individual ERC Certificate Analysis

ERC Certificate S-5253-2

A. ERC Background

Criteria Pollutant: NOx

ERC Certificate S-5253-2 is a certificate that was split out from parent ERC Certificate S-47-2. Original ERC Certificate S-47-2 was issued to Frito-Lay, Inc. on December 16, 1992 under project S-920416. The ERCs were generated from the pre-1988 shutdown of a carbon black manufacturing facility, Facility ID S-1637, Continental Carbon Corporation (CCC) at 20807 Stockdale Highway, Bakersfield, that was purchased by Frito-Lay, Inc. The CCC facility was comprised of two reactor units and associated carbon collection process units with bag filters. Each reactor unit had two main bag filter stacks, an oil preheater stack, a firebox stack and an exhaust bag filter stack. It is presumed that each stack vented a portion of the total reactor exhaust and that all fuel combustion is attributable to the reactor unit. The original ERC Banking project considered NOx emissions at each of these stacks to determine the actual reductions eligible for banking.

The reactor units at the CCC facility used an oil furnace process for producing carbon black. Per EPA's AP-42, section 6.1.1.1 (1/95), in the oil furnace process, an aromatic liquid hydrocarbon feed stock is heated and injected continuously into the combustion zone of a natural gas-fired furnace, where the hydrocarbon feedstock decomposes to form carbon black. Primary quench water cools the gases to 500°C (1,000°F) to stop the cracking. The exhaust gases entraining the carbon particles are further cooled to about 230°C (450°F) by passing them through heat exchangers and direct water sprays. The heat exchangers may serve as unfired waste heat recovery to provide heat to oil preheating systems. The black carbon is then separated from the gas stream, usually by fabric filters. A cyclone for primary collection and particle agglomeration may precede the filter. A single collection system often serves several manifolded furnaces.

The following table summarizes the values of the original parent certificate and the current value of the subject certificate proposed to be utilized as a part of the current District analysis:

ERC Certificate S-5253-2				
Pollutant	1 st Qtr. (lb/qtr)	2 nd Qtr. (lb/qtr)	3 rd Qtr. (lb/qtr)	4 th Qtr. (lb/qtr)
Original Value of Parent Certificate S-47-2	18,702	18,910	19,118	19,118
Current Value of ERC Certificate S-5253-2	6,427	6,614	6,784	6,783

B. Applicable Rules and Regulations at Time of Original Banking Project

Based on the application review for the original ERC banking project, the following rules and regulations were evaluated to determine the surplus value of actual emission reductions of NO_x generated by the reduction project.

1. District Rules

Rule 220.1 - New and Modified Stationary Source Review

Rule 230.1 - Emission Reduction Credit Banking

The requirements of these rules only applied at the time of the original banking action. The original ERC banking project demonstrated that the ERC credit complied with these rules at the time it was issued. Thus, no further evaluation of these rules will be conducted in this analysis.

2. Federal Rules and Regulations

There were no applicable federal rules or regulations identified that applied at the time of this original ERC banking action; therefore, no further discussion is required.

C. New or Modified Rules and Regulations Applicable to the Original Banking Project

All District and federal rules and regulations which would be applicable to the carbon black production operation that have been adopted or amended, or are currently proposed to be adopted or amended, since the date the original banking project was finalized will be evaluated below:

1. District Rules:

Rule 2201 - New and Modified Stationary Source Review (4/20/23)

Rule 2301 - Emission Reduction Credit Banking (12/17/92)

The requirements of these rules only apply at the time an original permitting or banking action; the requirements of these rules do not apply at this time. Thus, no further evaluation of these rules will be conducted in this analysis.

Rule 4301 Fuel Burning Equipment (12/17/92)

Section 3.1 defines 'fuel burning equipment' as any furnace, boiler, apparatus, stack and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer.

As explained in the section II.A above, in the oil furnace process of producing carbon, an aromatic liquid hydrocarbon feedstock is heated and injected continuously in the combustion zone of a natural gas-fired furnace. This process does not meet the 'fuel burning equipment' definition above as the heat from natural gas is 'directly'

transferred to the oil to break carbon and hydrogen in the fuel. Therefore, the reactors are not subject to the limits in this rule.

The oil preheaters are presumed to have been unfired waste heat recovery systems that capture waste heat from the process gas through heat exchangers. Therefore, the oil preheaters do not burn fuel and are not subject to this rule.

Rule 4305 Boilers, Steam Generators, and Process Heaters – Phase 2 (8/21/03)

Rule 4306 Boilers, Steam Generators, and Process Heaters – Phase 3 (12/17/20)

Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters (12/17/20)

Rule 4351 Boilers, Steam Generators, and Process Heaters – Phase 1 (8/21/03)

These rules define ‘process heater’ as any combustion equipment fired with liquid and/or gaseous fuel and which transfers heat from combustion gases to water or process streams. This definition excludes: kilns or ovens used for drying, baking, cooking, calcining, or vitrifying; and unfired waste heat recovery heaters used to recover sensible heat from the exhaust of combustion equipment.

As explained in the section II.A above, in the oil furnace process of producing carbon black, an aromatic liquid hydrocarbon feedstock is heated and injected continuously into the combustion zone of a natural gas-fired furnace. This process does not meet the ‘process heater’ definition stated above as the carbon black producing units are chemical reactors that separate carbon and hydrogen bonds in a temperature-controlled heating environment in order to recover the carbon as a solid material.

Further, for the purposes of Rules 4305, 4306, 4320, and 4351, process heaters are units that combust fuel for the purpose of transferring heat indirectly to water flowing through the convection tubes (such as in boilers units) or other process streams where the combustion gasses do not come into direct contact with the material that is being heated. The process streams, that is, water or other media, never comes in direct contact with the heat generated from fuel combustion.

Since carbon black reactors do not meet the ‘process heater’ definition, these reactors are not subject to the limits in these rules.

The oil preheaters are presumed to have been unfired waste heat recovery heaters which recovered sensible heat from the exhaust of the combustion equipment. Therefore, the oil preheaters are excluded from the ‘process heater’ definition, and are not subject to the limits in these rules.

2. Federal Rules and Regulations:

40 CFR Part 63 Subpart M- National Emission Standards for Hazardous Air Pollutants for Carbon Black Production Area Sources

This subpart is applicable to a carbon black production facility that is an area source of hazardous air pollutant emissions.

Section 63.11402 requires the owner or operator of new and existing sources to meet all of the requirements in Section 63.1103(f) of subpart YY. Subpart YY is discussed below.

40 CFR Part 63 Subpart YY—National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards

Section 63.1103(f) requires that a carbon black production main unit filter process vent with HAP concentration of equal to greater than 260 ppmv by volume must reduce emissions of HAP by using a flare meeting the requirements of subpart SS of this part; or reduce emissions of total HAP by 98 weight percent or to a concentration of 20 ppmv, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of section 63,982(a)(2).

However, this subpart does not have operational requirements or emission limits for NOx emissions. Therefore, the NOx emission reductions continue to be surplus of this subpart.

D. Surplus at Time of Use Adjustments to ERC Quantities

As demonstrated in the section above, the emissions reductions from permit units in the original banking project continue to be surplus of all applicable District and Federal Rules and Regulations. Therefore, no discounting to the ERC values is necessary for surplus at time of use considerations.

E. Surplus Value of ERC Certificate

The emissions continue to be Surplus of all District and Federal Rules and Regulations; therefore, no adjustments to the ERC values are necessary.

ERC Certificate S-5253-2 – Criteria Pollutant NOx					
		1 st Qtr. (lb/qtr)	2 nd Qtr. (lb/qtr)	3 rd Qtr. (lb/qtr)	4 th Qtr. (lb/qtr)
(A)	Current ERC Quantity	6,427	6,614	6,784	6,783
(B)	Percent Discount	0.0%	0.0%	0.0%	0.0%
(C) = (A) x [1 – (B)]	Surplus Value	6,427	6,614	6,784	6,783

APPENDIX H

Fryer Air Toxic Contaminants

Toxic Air Contaminant Emissions from Continuous Chip Fryers

Toxic air contaminant (TAC) emissions from the frying oil in the proposed fryers are expected to be negligible. The fryer exhaust is controlled by a thermal oxidizer, and the frying process itself significantly suppresses formation of the aldehydes associated with deep-fat frying, as discussed below. Of these aldehydes, acrolein is of particular concern. Its reference exposure levels are far lower than those of acetaldehyde or propionaldehyde, so it typically drives the hazard index for fryer emissions.

This approach is consistent with the District's treatment of a comparable Frito-Lay fryer in District project N-1220099. SCAQMD staff also confirmed in 2022 that their health risk procedures for commercial potato chip fryers do not assign TAC emissions to the frying oil.

The principal published source of toxic emission rates from heated cooking oil is a University of Dayton study.[1] In that study, four retail oils were heated without food in a sealed glass reactor swept continuously with air, at 180–270 °C for six hours. The study reported emission rates of acetaldehyde, acrolein, and propionaldehyde per hour per liter of oil usage at temperature. No oil was absorbed, removed, or replaced.

Emission factors developed from this study would be flawed if applied to continuous chip fryers. First, the test conditions differ materially from commercial continuous chip frying, as described below. Second, the study's results cannot be meaningfully expressed per unit of oil usage for a continuous chip fryer. In a continuous chip fryer, most oil usage is oil absorbed into the product and carried out of the fryer, and that oil is not volatilized. Oil usage therefore has no demonstrated relationship to emissions from this process.

More broadly, these aldehydes form through the oxidation of unsaturated fatty acids in the oil. The amount formed depends on the oil's fatty acid composition, its temperature, and the oxygen available at the oil surface.[1][2][3] Acrolein is especially sensitive to the first and third of these: it forms mainly from oxidation of polyunsaturated fatty acids, and it is almost not formed without oxygen.[2][3] The proposed continuous chip fryer process differs from the Dayton test conditions in the following respects.

1. **Steam-blanketed, reduced-oxygen fryer atmosphere.** In the Dayton apparatus, the oil surface was continuously exposed to fresh air. Frito-Lay has represented that in its continuous fryers, moisture released from the product forms a steam blanket that displaces air above the oil, exposing the oil to very low oxygen levels. Fujisaki et al. simulated frying by spraying water into high-oleic oil heated at 180 °C under atmospheres of 2, 4, 10, and 20% oxygen.[2] Volatile aldehyde formation increased in proportion to oxygen concentration. At very low oxygen levels, 2% oxygen and less, total aldehydes were about one-tenth of those at 20% oxygen. Acrolein was not formed at all at 2% oxygen, and other unsaturated aldehydes were scarcely formed. The same research group later noted that acrolein is almost not formed from vegetable oils heated at 180 °C without oxygen.[3] Thus, at very low oxygen level conditions and temperatures expected in the proposed Frito-Lay dryer, acrolein is not expected to be formed and other aldehydes are expected only in trace amounts.

2. **Low-linolenic frying oil.** Acrolein forms mainly through oxidation of polyunsaturated fatty acids. When the individual fatty acids were heated at 180 °C, linolenic acid produced about 93 times as much acrolein as oleic acid, and linoleic acid about 27 times as much.[3] In heated vegetable oils, acrolein formation closely tracked linolenic acid content. An oil with less than 0.1% linolenic acid produced about one-sixth the acrolein of rapeseed (canola) oil under identical conditions.[3] These results also indicate that the glycerol backbone of the oil is not the main source of acrolein at frying temperatures.[3]

Frito-Lay has represented that its frying oils are very low in linolenic acid. Frito-Lay selects these oils for product quality, because acrolein and related oxidation products cause off-flavors. Frito-Lay has also represented that it limits oxidation in fresh oil by monitoring free fatty acids and peroxide value and by storing oil under a nitrogen headspace.

3. **Continuous oil turnover.** Oil absorbed by the product is continuously replaced with fresh oil. This holds the oil at a steady, low level of degradation, instead of allowing it to deteriorate over repeated use as in batch fryers. Degraded oil has higher free fatty acid content and a lower smoke point, which increases volatile emissions at a given temperature.[1] Aldehyde emissions also increase with cumulative heating time.[2] For acrolein specifically, hydrolysis of the oil into free fatty acids is suggested to accelerate its formation.[2] Keeping free fatty acids low through continuous turnover and fresh-oil quality control therefore limits acrolein formation.
4. **Thermal oxidizer control.** Fryer exhaust is captured and routed to a thermal oxidizer. The oxidizer operates in a manner in which it would be expected to achieve a 98% destruction level for any aldehydes that reach the inlet of the thermal oxidizer. Acrolein, acetaldehyde, and propionaldehyde are low-molecular-weight, highly volatile aldehydes, which are readily destroyed under these conditions. Whatever quantity of these compounds the frying process generates, the oxidizer reduces emissions to no more than 2% of that amount.

Conclusion. Emission factors developed from the Dayton study would not represent uncontrolled emissions from these fryers. The study was conducted without food or oil turnover, and its results cannot be meaningfully related to oil usage in a continuous chip fryer. The fryers also operate with very low oxygen at the oil surface, low-linolenic oil, and continuous turnover. Together these address each of the main pathways for aldehyde and acrolein formation: oxygen availability, polyunsaturated fatty acid content, and oil degradation. Thus, acrolein would not be expected and other aldehydes would only be expected in trace amounts. The trace amounts of aldehydes produced by the process would further be reduced by the thermal oxidizer. Fryer-oil TAC emissions, including acrolein, are therefore expected to be negligible from the continuous chip frying process.

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