

July 8, 2022

Will Clark
Diamond Pet Foods - Ripon
942 S Stockton Ave
Ripon, CA 95366

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: N-8234
Project Number: N-1211835

Dear Mr. Clark:

Enclosed for your review and comment is the District's analysis of Diamond Pet Foods - Ripon's application for an Authority to Construct for the installation of a 4th pet food manufacturing line, as well as modifications and clarifications to the existing pet food operations, at 942 S Stockton Ave. in Ripon, California.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and 45-day EPA notice comment periods, the District intends to issue the Authority to Construct. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jagmeet Kahlon of Permit Services at (209) 557-6452.

Sincerely,



Brian Clements
Director of Permit Services

BC:JK

Enclosures

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

Samir Sheikh
Executive Director/Air Pollution Control Officer

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

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

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

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Modification to Pet Food Manufacturing Operation

Facility Name: Diamond Pet Food - Ripon
Mailing Address: 942 S Stockton Ave
Ripon, CA 95366
Contact Person: Jessica Mohatt, Consultant
Telephone: (209) 662-8471
Fax: (925) 560-1042
E-Mail: JMohatt@yorkeengr.com
Application #(s): N-8234-2-6, '-3-4, '-4-13, '-5-13, '-6-13 & '-18-0
Project #: N-1211835
Deemed Complete: August 10, 2021

Date: July 8, 2022
Engineer: Jag Kahlon
Lead Engineer: James Harader

I. Proposal

N-8234-2-6

Diamond Pet Foods - Ripon (referred hereinafter as "DPF") has proposed the following changes to their pet food material dispensing, conveying, and storage operation:

- Increase daily and annual material dispensing rate from outdoor silos/bins to the storage bins in the mill tower from 800 tons/day to 1,100 tons/day and 90,000 tons/yr to 280,000 tons/yr; and
- Revise the equipment listed in "dispensing system" and "conveying and storage system" in conditions #1 and #2 of the permit.

N-8234-3-4

DPF has proposed the following changes to the pet food material dispensing, mixing, grinding, and screening operation:

- Install a new surge bin with dust collection system, a new hammermill with dust collection system, and a new set of extruder surge bin (includes two bins, each with dimensions approximately 8' x 8' x 20', each bin with a dust collection system);
- Remove vibratory screener associated with the existing hammermills; and
- Increase individual and combined hammermills' process rate from 800 tons/day to 1,100 tons/day

N-8234-4-13, ‘-5-13, ‘-6-13

DPF has requested to clarify requirements in previously issued Authority to Construct (ATC) permits N-8234-4-12, ‘-5-12 and ‘-6-12 (three existing pet food manufacturing lines) to ensure that the requirements are consistent across all the lines, including the newly proposed fourth pet food manufacturing line (N-8234-18-0) in this project. The proposed clarifications to the permits are as follows:

- Revise the permit conditions on each permit to reference four dryers at the facility instead of three.
- Include a condition limiting all four pet food manufacturing lines at the facility to 1,040 tons/day. The existing condition requiring individual and combined total pet food production rate of lines #1, #2, and #3 to 780 tons/day will be retained; therefore, the addition of the new SLC will not result in an increase in emissions for the existing 3 lines

Due to installation of 4th pet food manufacturing line, the combined total production of this plant will increase from 780 tons/day to 1,040 tons/day. This limit must be included in the permit for the new 4th pet food manufacturing line.

The above changes will not result in a change in method of operation, production rate, or emissions from the existing three lines. As demonstrated in the Section VIII: Compliance Determination (District Rule 2201) of this evaluation, the changes to the three existing lines are not a modification as defined by District Rule 2201; therefore, the changes to these lines are not subject to District Rule 2201 requirements.

N-8234-18-0

DPF has proposed to install a new pet food manufacturing line #4. This line will have equipment identical to the equipment listed in existing pet food manufacturing line 1 through 3 under permits N-8234-4, ‘-5, ‘-6.

Disposition of the Existing Authority to Construct (ATC) permits:

DPF will be required to implement ATC permits N-8234-4-12, ‘-5-12 and ‘-6-12 prior to the implementation of the ATC permits under this project. These previously issued ATC permits serves as base document to incorporate the changes proposed in this project.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (8/15/19)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (8/15/19)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4202	Particulate Matter – Emissions Rate (12/17/92)
Rule 4301	Fuel Burning Equipment (12/17/92)

Rule 4309 Dryer, Dehydrators, and Ovens (12/15/05)
Rule 4801 Sulfur Compounds (12/17/92)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA
Guidelines

III. Project Location

The facility is located at 920 South Stockton Ave, Ripon, California. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

This facility has several emission units including material receiving and storage operations (silos/bins), hammermills, screens/scalpers, elevators, conditioners, dryers, coolers, boilers, mechanical and pneumatic material conveying systems and packing machines.

DPF receives raw materials such as whole corn, beet pulp, chicken meal, cracked barley and peas via rail cars or trucks. The material is screened and stored in appropriate silos/bins located outside of the main production building. On a as need basis, an appropriate amount of the stored materials is dispensed from the silos/bins into a pre-grinding hammermill system or directly to enclosed drag screw conveyors. The pre-ground material and the materials in the enclosed drag screw conveyors are then transferred to enclosed belt conveyors, which transfers the material to the bins in the mill tower via enclosed bucket elevators.

The material in the mill tower is then dispensed to associated scale bins. From the scale bins, the material is dispensed into surge bins. The material in the surge bins is then dispensed into an enclosed mixer, and then either transferred into an enclosed bucket elevator feeding an enclosed transfer auger or into a truck loadout spout. The enclosed transfer auger feeds three surge bins, each associated with one of the three identical hammermill systems. Each hammermill system consists of a feeding system, hammermill unit, plenum, enclosed screw conveyor, vibratory screener, and a pneumatic transfer system (bin vent filter with static socks) for transferring “overs” from the screener to the extruder surge bin, which feeds the extruder of each pet food processing line.

Frozen meat (beef, chicken and lamb) is delivered to the facility via trucks. The meat is stored in a refrigerated building.

Currently, there are three separate identical pet food processing lines. DPF is proposing to install a new 4th pet food processing line, which will be identical to the existing pet food manufacturing lines.

Each of these processing lines is capable of manufacturing various pet food kibble based on the production needs and given recipes. The process starts with a specific pet food kibble recipe. Depending on the recipe, an appropriate amount of each material is dispensed from metering bins, mixed, and transferred into steam conditioners. Each recipe may use frozen meat (beef, chicken, lamb, or fish), which is delivered to the facility via trucks, and stored in a refrigerated building. As part of the recipe, ground meat is injected into the steam conditioners, and thoroughly pasteurized/steam conditioned to release starches, which act as binding agents for the material. The material is then extruded to form pet food kibble. The freshly extruded moist kibble is transferred via vacuum takeaway tubing (vacuum created by a cyclone) to the conveyor belt that serves the dryer and dryer-cooler in each processing line. In the dryer and dryer-cooler the kibble is dried using hot air from natural gas combustion and then cooled in the dryer-cooler. The dried kibble is then coated with chicken fat and canola oil to bind other nutrients such as dry digest and probiotics. The coated kibbles are then cooled further in vertical coolers, then packaged and stored in a warehouse or shipped directly to the customers.

Each pet food manufacturing line includes – an extruder (wet) cyclone also known as hot kibble conveying cyclone (HT-68), dryer cyclone (MAC HE60) and vertical cooler cyclone (MAC HE-52). The exhaust from these cyclones is discharged into a main duct (header) from where the combined exhaust is diverted into three ducts each connected to a custom regenerative thermal oxidizer (RTO) system, which will serve to reduce both pet food odors and VOC emissions.

V. Equipment Listing

Pre-Project Equipment Description:

- N-8234-2-5: PET FOOD MATERIAL DISPENSING, CONVEYING AND STORAGE OPERATIONS
- N-8234-3-2: PET FOOD MATERIAL DISPENSING, MIXING, GRINDING AND SCREENING, EXTRUSION SURGE BINS, AND ASSOCIATED CONVEYING OPERATIONS
- N-8234-4-12: PET FOOD PROCESSING LINE #1
- N-8234-5-12: PET FOOD PROCESSING LINE #2
- N-8234-6-12: PET FOOD PROCESSING LINE #3

Proposed Modification:

- N-8234-2-6: MODIFICATION OF PET FOOD MATERIAL DISPENSING, CONVEYING AND STORAGE OPERATIONS: INCREASE TOTAL THROUGHPUT OF PET FOOD MATERIAL DISPENSING, CONVEYING AND STORAGE OPERATIONS TO 1,100 TONS PER DAY AND 280,000 TONS PER YEAR AND REVISE EQUIPMENT CONFIGURATIONS IN “DISPENSING SYSTEM” AND “CONVEYING AND STORAGE SYSTEMS

- N-8234-3-4: MODIFICATION OF PET FOOD MATERIAL DISPENSING, MIXING, GRINDING AND SCREENING, EXTRUSION SURGE BINS, AND ASSOCIATED CONVEYING OPERATIONS: INSTALL A NEW SURGE BIN WITH DUST COLLECTION SYSTEM, A NEW HAMMERMILL WITH DUST COLLECTION SYSTEM, AND A NEW SET OF EXTRUDER SURGE BIN WITH DUST COLLECTION SYSTEM; REMOVE VIBRATORY SCREENER ASSOCIATED WITH THREE

HAMMERMILLS, RE-ESTABLISH INDIVIDUAL AND COMBINED PROCESS RATE FOR EACH HAMMERMILL TO 1,100 TONS/DAY

N-8234-4-13: MODIFICATION OF PET FOOD PROCESSING LINE #1: CLARIFY TOTAL NUMBER OF DRYERS AND TOTAL PET FOOD PRODUCTION FOR THE ENTIRE PLANT

N-8234-5-13: MODIFICATION OF PET FOOD PROCESSING LINE #2: CLARIFY TOTAL NUMBER OF DRYERS AND TOTAL PET FOOD PRODUCTION FOR THE ENTIRE PLANT

N-8234-6-13: MODIFICATION OF PET FOOD PROCESSING LINE #3: CLARIFY TOTAL NUMBER OF DRYERS AND TOTAL PET FOOD PRODUCTION FOR THE ENTIRE PLANT

N-8234-18-0: PET FOOD PROCESSING LINE #4

Post-Project Equipment Description:

N-8234-2-5: PET FOOD MATERIAL DISPENSING, CONVEYING AND STORAGE OPERATIONS

N-8234-3-4: PET FOOD MATERIAL DISPENSING, MIXING, GRINDING AND SCREENING, EXTRUSION SURGE BINS, AND ASSOCIATED CONVEYING OPERATIONS

N-8234-4-13: PET FOOD PROCESSING LINE #1

N-8234-5-13: PET FOOD PROCESSING LINE #2

N-8234-6-13: PET FOOD PROCESSING LINE #3

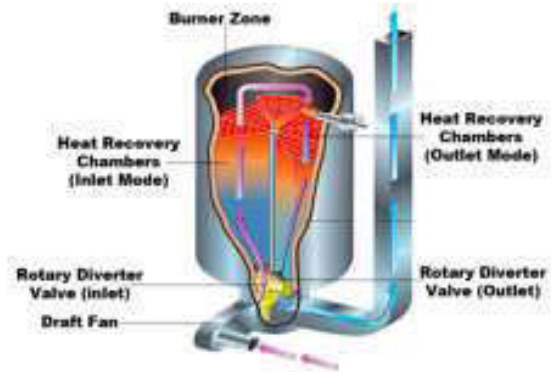
N-8234-18-0: PET FOOD PROCESSING LINE #4

VI. Emission Control Technology Evaluation

DPF uses three custom-designed regenerative thermal oxidizers (RTOs) to control odor emissions and VOCs from the per food manufacturing operations. Each RTO system is a custom design single-vessel RTO capable of handling large volumes of airflow and is capable of destroying at least 95% of VOC emissions (by wt.). Pollutants are oxidized at high temperatures (1,620-1,650 °F), creating CO₂ and H₂O. Up to 95% of the thermal energy required for the oxidation process is recovered internally to minimize natural gas fuel usage. While it is typical for RTO's to have a minimum of a 98% destruction efficiency for VOC's, the proposed RTO's are not typical units. The RTO's proposed for this project are highly specialized units that are designed specifically to control VOC emissions from sources that have very high airflows with low VOC concentrations; therefore, the equipment manufacturer will only guarantee a VOC control efficiency of 95%.

Each RTO has twelve ceramic heat-exchanger beds that are arranged radially over a proprietary diverter valve. Incoming contaminated air enters the media bed through the bottom of the unit, and is drawn upwards through five hot ceramic beds which have been previously pre-heated. The laden stream is heated as it rises, and enters 6” ceramic lined combustion chamber at the top where additional energy is added by a burner to complete the oxidation process.

Hot clean exhaust is then drawn downwards through the five adjacent cooler ceramic beds to transfer the thermal energy to the ceramic beds before being exhausted into the atmosphere. The two “spare” beds serve to prevent cross contamination between the inlet and outlet sections and to ensure high destruction efficiency of the unit.



More information on the proposed model and a video on how it works can be found at the following link:

<https://www.durr.com/en/products/environmental-technology/exhaust-gas-and-air-pollution-control/thermal-processes/ecopure-rl>.

VII. General Calculations

A. Assumptions

- Assumptions will be stated as they are made during the evaluation.
- Emission calculations are generally performed for the purpose of determining District Rule 2201, NSR, requirements for a project. Calculations for units N-8234-4, ‘-5, and ‘-6 will not be performed since these units were determined to not be subject to District Rule 2201.
- 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}, PM_{2.5} emission calculations be performed.

B. Emission Factors

1. Pre-Project Emission Factors (EF1)

N-8234-2-5:

Material conveying and transfer operations:

Pollutant	EF1	Source
PM ₁₀	0.00025 lb/ton of material processed	Permit to Operate (PTO) N-8234-2-5

N-8234-3-2:

Hammermill system:

Pollutant	EF1	Source
PM ₁₀	0.021 lb/ton of material processed	PTO N-8234-3-2

Truck loadout operation:

Pollutant	EF1	Source
PM ₁₀	0.0009 lb/ton of material processed	Refer to worksheet in Appendix C

Material handling & Transfer operation:

Pollutant	EF1	Source
PM ₁₀	0.0005 lb/ton of material processed	Refer to worksheet in Appendix C

N-8234-18-0

Since the equipment under this permit is new, no emission factors are applicable pre-project.

2. Post-Project Emission factors (EF2)

N-8234-2-6:

Material conveying and transfer operations:

With the revised configuration, EF2 will be same as the EF1. Thus,

Pollutant	EF2	Source
PM ₁₀	0.00027 lb/ton of material processed	Refer to worksheet in Appendix C

N-8234-3-2:

Hammermill system:

Pollutant	EF2	Source
PM ₁₀	0.021 lb/ton of material processed	PTO N-8234-3-2

Truck loadout operation:

Pollutant	EF2	Source
PM ₁₀	0.0009 lb/ton of material processed	Refer to worksheet in Appendix C

Material handling & Transfer operation:

Pollutant	EF2	Source
PM ₁₀	0.0003 lb/ton of material processed	Refer to worksheet in Appendix C

N-8234-18-0:

The equipment used for the 4th pet food line will be identical to that of the existing pet food lines 1, 2 and 3 under permits N-8234-4, '-5 and '-6. Therefore, EFs from these permits will be cited for this new pet food line.

Natural gas combustion in dryer:

Pollutant	EF2	Source
NO _x	2.1 ppmvd @ 19% O ₂ (0.024 lb/MMBtu)	N-8234-4-12, '-5-12 and '-6-12
SO _x	0.00285 lb/MMBtu	District Policy APR-1720 (12/20/01)
*PM ₁₀	--	See table footnote
CO	16.5 ppmvd @ 19% O ₂ (0.112 lb/MMBtu)	N-8234-4-12, '-5-12 and '-6-12
*VOC	--	See table footnote

*PM₁₀ and VOC emissions are counted in the process emissions (see below).

Process emissions:

Pollutant	EF2	Source
*PM ₁₀	0.0306 lb/ton of finished material	N-8234-4-12, '-5-12 and '-6-12
*VOC	0.005 lb/ton of finished material	

*Note that both VOC and PM₁₀ emission factor include emissions from various processes under each permit and emissions from direct-fired dryer fueled on natural gas. These emission factors do not include emissions from natural gas combustion in the RTO systems.

RTO emissions:

Pollutant	EF2	Source
NO _x	0.330 lb/MMBtu (hourly, daily)	N-8234-4-12, '-5-12 and '-6-12
	0.1743 lb/MMBtu (annual basis)	
SO _x	0.00285 lb/MMBtu	
PM ₁₀	0.0076 lb/MMBtu	
CO	0.88 lb/MMBtu	
VOC	0.0055 lb/MMBtu	

C. Calculations

1. Pre-Project Potential to Emit (PE1)

N-8234-2-5:

Material conveying and transfer operations:

This permit limits process rate to 800 tons/day and 90,000 tons/yr. Thus,

$$\begin{aligned} \text{PE1} &= 0.00025 \text{ lb-PM}_{10}/\text{ton of material processed} \times 800 \text{ tons/day} \\ &= 0.2 \text{ lb-PM}_{10}/\text{day} \end{aligned}$$

$$\begin{aligned} \text{PE1} &= 0.00025 \text{ lb-PM}_{10}/\text{ton of material processed} \times 90,000 \text{ tons/yr} \\ &= 23 \text{ lb-PM}_{10}/\text{yr} \end{aligned}$$

N-8234-3-2:

Hammermill system:

This permit limits process rate to 800 tons/day for a single hammermill, as well as, for all three hammermills. Thus,

$$\begin{aligned} \text{PE1} &= 0.021 \text{ lb-PM}_{10}/\text{ton of material processed} \times 800 \text{ tons/day} \\ &= 16.8 \text{ lb-PM}_{10}/\text{day} \end{aligned}$$

Truck loadout operation:

This permit limits process rate to 800 tons/day for this operation.

$$\begin{aligned} \text{PE1} &= 0.0009 \text{ lb-PM}_{10}/\text{ton of material processed} \times 800 \text{ tons/day} \\ &= 0.7 \text{ lb-PM}_{10}/\text{day} \end{aligned}$$

Material handling & Transfer operation:

This permit limits hammermill and truck loadout operations to 800 tons/day. Thus, process rate for this operation is presumed to be 800 tons/day.

$$\begin{aligned} \text{PE1} &= 0.0005 \text{ lb-PM}_{10}/\text{ton of material processed} \times 800 \text{ tons/day} \\ &= 0.4 \text{ lb-PM}_{10}/\text{day} \end{aligned}$$

Summary:

The total emissions from this permit unit would be:

$$\begin{aligned} \text{PE1} &= 16.8 \text{ lb-PM}_{10}/\text{day} + 0.7 \text{ lb-PM}_{10}/\text{day} + 0.4 \text{ lb-PM}_{10}/\text{day} \\ &= 17.9 \text{ lb-PM}_{10}/\text{day} (6,534 \text{ lb-PM}_{10}/\text{yr} @ 365 \text{ days/yr operation}) \end{aligned}$$

N-8238-18-0:

The proposed emission units are new units, therefore, PE1 is zero for each emissions unit.

2. Post-Project Potential to Emit (PE2)

N-8234-2-6:

Material conveying and transfer operations:

The applicant has proposed to increase material process rate to 1,100 tons/day and 280,000 tons/yr. Thus,

$$\begin{aligned} \text{PE2} &= 0.00027 \text{ lb-PM}_{10}/\text{ton of material processed} \times 1,100 \text{ tons/day} \\ &= 0.3 \text{ lb-PM}_{10}/\text{day} \end{aligned}$$

$$\begin{aligned} \text{PE2} &= 0.00027 \text{ lb-PM}_{10}/\text{ton of material processed} \times 280,000 \text{ tons/yr} \\ &= 76 \text{ lb-PM}_{10}/\text{yr} \end{aligned}$$

N-8234-3-4:

Hammermill system:

The applicant has proposed to process 1,100 tons/day of material in a single, as well as, in all four hammermills. Thus,

$$\begin{aligned} \text{PE2} &= 0.021 \text{ lb-PM}_{10}/\text{ton of material processed} \times 1,100 \text{ tons/day} \\ &= 23.1 \text{ lb-PM}_{10}/\text{day} \end{aligned}$$

Truck loadout operation:

The applicant wants to retain the existing process rate at 800 tons/day for this operation.

$$\begin{aligned} \text{PE2} &= 0.0009 \text{ lb-PM}_{10}/\text{ton of material processed} \times 800 \text{ tons/day} \\ &= 0.7 \text{ lb-PM}_{10}/\text{day} \end{aligned}$$

Material handling & Transfer operation:

This operation is presumed to have a maximum process rate of 1,100 tons/day. Thus,

$$\begin{aligned} \text{PE2} &= 0.0003 \text{ lb-PM}_{10}/\text{ton of material processed} \times 1,100 \text{ tons/day} \\ &= 0.3 \text{ lb-PM}_{10}/\text{day} \end{aligned}$$

Summary:

The total emissions from this permit unit would be:

$$\begin{aligned} \text{PE2} &= 23.1 \text{ lb-PM}_{10}/\text{day} + 0.7 \text{ lb-PM}_{10}/\text{day} + 0.3 \text{ lb-PM}_{10}/\text{day} \\ &= 24.1 \text{ lb-PM}_{10}/\text{day} (8,797 \text{ lb-PM}_{10}/\text{yr} @ 365 \text{ days/yr operation}) \end{aligned}$$

N-8238-18-0:

Natural gas combustion in dryer:

This pet food line will have a 10 MMBtu/hr natural gas fired dryer. The potential emissions from this dryer are estimated using the following equations:

$$\begin{aligned} \text{PE2 (lb/hr)} &= \text{EF2 (lb/MMBtu)} \times 10 \text{ MMBtu/hr} \\ \text{PE2 (lb/day)} &= \text{EF2 (lb/MMBtu)} \times 10 \text{ MMBtu/hr} \times 24 \text{ hr/day} \\ \text{PE2 (lb/yr)} &= \text{EF2 (lb/MMBtu)} \times 10 \text{ MMBtu/hr} \times 8,760 \text{ hr/yr} \end{aligned}$$

Pollutant	EF2	PE2 (lb/hr)	PE2 (lb/day)	PE2 (lb/yr)
NO _x	0.024 lb/MMBtu	0.24	5.8	2,102
SO _x	0.00285 lb/MMBtu	0.029	0.7	250
*PM ₁₀	--	--	--	--
CO	0.112 lb/MMBtu	1.12	26.9	9,811
*VOC	--	--	--	--

*PM₁₀ and VOC emissions are counted in the process emissions (see below).

Process emissions:

DPF has proposed to limit the combined processing rate of this new line as well as all of the existing pet food processing lines at this plant to 1,040 tons/day. Thus,

$$\begin{aligned} \text{PE2 (lb/hr)} &= \text{PE2 (lb/day)} \div 24 \text{ hr/day} \\ \text{PE2 (lb/day)} &= \text{EF2 lb/ton of finished material} \times 1,040 \text{ tons/day} \\ \text{PE2 (lb/yr)} &= \text{PE2 (lb/day)} \times 365 \text{ days/yr} \end{aligned}$$

Pollutant	EF2	PE2 (lb/hr)	PE2 (lb/day)	PE2 (lb/yr)
PM ₁₀	0.0306 lb/ton of finished material	1.325	31.8	11,616
VOC	0.005 lb/ton of finished material	0.217	5.2	1,898

RTO emissions:

The facility currently uses three RTOs to control VOC emissions and odors from the three existing pet food processing lines. These RTO units will serve all four pet food processing lines.

DPF is not proposing any changes to the established heat input rate for the RTOs. Per ATC N-8234-4-12, '5-12 & '6-12, heat input to each RTO is limited to 7.7 MMBtu/hr, 184.8 MMBtu/day and 67,082 MMBtu/yr. Further, all three RTOs are limited to a combined total heat input rate of 156,816 MMBtu/yr. The heat input rates will stay same after the installation and operation of the proposed new fourth pet food line.

NO_x, SO_x, PM₁₀, CO and VOC:

$$\begin{aligned} \text{PE2 (lb/hr)} &= \text{EF2}_{\text{Hourly or Daily}} \text{ lb/MMBtu} \times 7.7 \text{ MMBtu/hr} \\ \text{PE2 (lb/day)} &= \text{EF2}_{\text{Hourly or Daily}} \text{ lb/MMBtu} \times 184.8 \text{ MMBtu/day} \\ \text{PE2 (lb/yr)} &= \text{EF2}_{\text{Annual}} \text{ lb/MMBtu} \times 67,082 \text{ MMBtu/yr} \end{aligned}$$

PE2 (lb/yr) for all three RTOs:

$$\text{PE2 (lb/yr)} = \text{EF2}_{\text{Annual}} \text{ lb/MMBtu} \times 156,816 \text{ MMBtu/yr}$$

Pollutant	EF2		PE2 (lb/hr) Max.	PE2 (lb/day)	PE2 (lb/yr) For each RTO	PE2 (lb/yr) for all three RTOs
	NO _x	Hourly or Daily	0.330 lb/MMBtu	2.541	61.0	--
Annual		0.1743 lb/MMBtu	--	--	11,692	27,333
Worst-case		2.541	61.0	11,692	27,333	
SO _x	0.00285 lb/MMBtu		0.022	0.5	191	447
PM ₁₀	0.0076 lb/MMBtu		0.059	1.4	510	1,192
CO	0.88 lb/MMBtu		6.776	162.6	59,032	137,998
VOC	0.0055 lb/MMBtu		0.042	1.0	369	862

DPF has proposed to maintain the currently permitted NO_x emission limits for all four pet food processing lines. These emission rates include NO_x emissions from all four dryers as well as process NO_x emissions from three RTOs.

The new 4th pet food manufacturing line (N-8234-18-0) will produce pet food recipes similar to the existing pet food manufacturing lines; therefore, its NO_x emissions are expected to be similar to those from the existing pet food manufacturing lines.

Currently, DPF uses continuous emissions rate monitoring system (CERMS) on each RTO to measure and record NO_x emissions. CERMS data from October 1, 2021 through February 28, 2022 indicates that the maximum daily total NO_x emission rate was 68.0 pounds. Thus, each line's contribution, based on 365 days/yr operation, would be:

$$\begin{aligned} \text{PE2} &= (68.0 \text{ lb-NO}_x\text{/day for all three lines} \div 3 \text{ pet food lines}) \times 365 \text{ days/yr} \\ &= 8,273 \text{ lb-NO}_x\text{/yr/line} \end{aligned}$$

DPF has proposed a PE2 of 8,400 lb-NO_x/yr for line #4 (N-8234-18-0), which is 25% of the annual NO_x limit of 33,639 lb and consistent with the NO_x contribution for each existing line as calculated above. Thus,

$$\text{PE2}_{\text{Line \#4}} = 8,400 \text{ lb-NO}_x\text{/yr}$$

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.

Except for the permit unit under this project, the potential emissions are taken from the application review under project N-1191493.

SSPE1 (lb/year)					
Permit #	NO _x	SO _x	PM ₁₀	CO	VOC
N-8234-1-2	--	--	570	--	--
N-8234-2-5	--	--	23	--	--
N-8234-3-2	--	--	6,534	--	--
N-8234-4-12	33,639	250	8,712	9,811	1,424
N-8234-5-12		250		9,811	
N-8234-6-12		250		9,811	
Three RTOs serving N-8234-4, '5, and '6		447	1,192	137,998	862
N-8234-7-2, '8-2, '9-2, '14-1, '16-0 and '17-0	--	--	694	--	--
N-8234-10-2	1,412	366	385	4,748	513
N-8234-11-2					
N-8234-12-0	359	0	15	107	45
ERC	0	0	0	0	0
SSPE1	35,410	1,563	18,125	172,286	2,844

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

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

SSPE2 (lb/year)					
Permit #	NO _x	SO _x	PM ₁₀	CO	VOC
N-8234-1-2	--	--	570	--	--
N-8234-2-6	--	--	76	--	--
N-8234-3-4	--	--	8,797	--	--
N-8234-4-13	33,639	250	11,616	9,811	1,898
N-8234-5-13		250		9,811	
N-8234-6-13		250		9,811	
N-8234-18-0		250	9,811		
Three RTOs serving N-8234-4, '5, '6 & '18		447	1,192	137,998	862
N-8234-7-2, '8-2, '9-2, '14-1, '16-0 and '17-0	--	--	694	--	--
N-8234-10-2	1,412	366	385	4,748	513
N-8234-11-2					
N-8234-12-0	359	0	15	107	45
ERC	0	0	0	0	0
SSPE2	35,410	1,813	23,345	182,097	3,318

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

Rule 2201 Major Source Determination (lb/year)						
Category	NO_x	SO_x	PM₁₀	*PM_{2.5}	CO	VOC
SSPE1	35,410	1,563	18,125	18,125	172,286	2,844
SSPE2	35,410	1,813	23,345	23,345	182,097	3,318
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	Yes	No	No	No	No	No

*PM_{2.5} assumed to be equal to PM₁₀

Rule 2410 Major Source Determination:

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

PSD Major Source Determination (tons/year)						
	NO₂	VOC	SO₂	CO	PM	PM₁₀
Estimated Facility PE before Project Increase	17.7	1.4	0.8	86.1	9.1	9.1
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source?	No	No	No	No	No	No

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

6. Baseline Emissions (BE)

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

Pursuant to District Rule 2201, BE = PE1 for:

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

Otherwise,

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

N-8234-2 and -3

The emission units under these permits release PM₁₀ emissions. Per section VII.C.5 above, this facility is not a Major Source for PM₁₀ emissions. Thus, BE is equal to PE1 for each permit unit.

N-8234-18:

The equipment under this permit is new; therefore, BE is zero for each pollutant.

7. SB 288 Major Modification

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

NO_x

Conservatively, the "Project's PE2", that is, sum of the potential emissions from the units involved in this project, is compared to SB-288 Major Modification thresholds, to determine whether or not the SB-288 Major Modification calculations are required.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NO _x	33,639	50,000	No

Since the SB 288 Major Modification Thresholds are not surpassed with this project, this project does not constitute an SB-288 Major Modification for NOx emissions and no further discussion is required.

SOx, PM₁₀, VOC

As seen in table in Section VII.C.5 above, SSPE2 for SOx, PM₁₀, and VOC does not surpass their respective Major Source threshold level; consequently, the proposed project cannot trigger an SB-288 Major Modification for these pollutants.

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.

There is no Federal Major Modification threshold for CO, and this facility is not a Major Source for SOx, PM₁₀, or VOC emissions; therefore, this project does not constitute a Federal Major Modification for these pollutants.

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. In step 1, emission decreases cannot cancel out the increases. Step 2 allows consideration of the project’s net emissions increase as described in 40 CFR 51.165 and the Federal Clean Air Act Section 182 (e), as applicable. However, step 2 is not allowed for ozone precursors, NOx and VOC, since the District is in extreme non-attainment status for Ozone.

Step 1: Project Emissions Increase

N-8234-18-0:

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

Emission Increase = PE2

As noted in section VII.C.2 above, PE2 for the new pet food line (N-8234-18-0) is 8,410 lb-NOx/yr. These emissions are compared to the Federal Major Modification Thresholds in the following table.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
NO _x *	8,400	0	Yes

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

Since there is an increase in NO_x emissions, this project constitutes a Federal Major Modification.

N-8234-2 and -3:

These permit units do not emit NO_x emissions; consequently, no further discussion is required.

Federal Offset Quantity Calculation

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

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

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

Actual Emissions

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

As noted previously, this project involves a new pet food processing line. Therefore, its AE is equal to zero for NO_x emissions.

Federal Offset Ratio

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

Federal Offset Quantity (FOQ)

As noted previously in section VII.C.2 above, the potential NO_x emissions from the new pet food processing line (N-8234-18-0) are 8,400 lb/yr.

$$\begin{aligned} \text{FOQ} &= \text{PE2} \times \text{Federal offset ratio} \\ &= 8,400 \text{ lb-NOx/yr} \times 1.5 \\ &= 12,600 \text{ lb-NOx/yr} \end{aligned}$$

New Major Source

This facility is an existing Major Source. Therefore, no further discussion is required.

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

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

- NO₂ (as a primary pollutant)
- SO₂ (as a primary pollutant)
- CO
- PM, PM₁₀

I. Project Emissions Increase - New Major Source Determination

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

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

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀
Total PE from New and Modified Units	16.8	1.4	0.7	88.6	10.8	10.8
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 H**.

VIII. Compliance Determination

Rule 1080 Stack Monitoring

This rule grants the APCO the authority to request the installation, use, maintenance, and inspection of continuous emissions monitors, and specifies performance standards for the equipment and administrative requirements for recordkeeping, reporting, and notification.

DPF monitors NO_x emissions rate from pet food processing operations using continuous emissions rate monitoring system (CERMS). CERMS was installed on each RTO stack. Use of CERMS was authorized under project N-1191493. The following conditions will be included in permit N-8234-18-0:

- The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Rate Monitoring System (CERMS) which continuously measures and records the exhaust gas NO_x concentrations and exhaust flow rate, at the exhaust stack of each RTO system. CERMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CERMS passes the relative accuracy requirement specified herein during startups and shutdowns periods. If relative accuracy of CERMS cannot be demonstrated during startup or shutdown periods, CERMS results during startup and shutdown events shall be replaced with startup emission rates obtained during the previous NO_x source testing conducted on January 24, 2019. [District Rules 1080 and 2201]
- The CERMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080 and 2201]
- The CERMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 for CEMS and Part 60, Appendix B Performance Specification 6 (PS6), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080 and 2201]
- In accordance with 40 CFR Part 60, Appendix F, NO_x monitor must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no

more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080 and 2201]

- The owner/operator shall perform a RATA for NO_x (as specified in 40 CFR Part 60, Appendix F) and flow rate sensor at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CERMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F for CEMS equipment. [District Rules 1080 and 2201]
- APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080 and 2201]
- The CERMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080 and 2201]
- Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CERMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]
- The facility shall install and maintain equipment, facilities, and systems compatible with the District's CERMS data polling software system and shall make CERMS data available to the District's automated polling system on a daily basis. [District Rule 1080]
- Upon notice by the District that the facility's CERMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CERMS data is sent to the District by a District-approved alternative method. [District Rule 1080]
- The permittee shall maintain the following records for CERMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CERMS was inoperative. [District Rule 1080]
- The owner or operator shall maintain records of NO_x emissions and submit a written report each calendar quarter to the District containing the following information for each operating day: (1) Calendar date; (2) The average hourly NO_x emission rate (expressed as NO₂, lb/hr) measured at the exhaust of each RTO; (3) The total average hourly NO_x emission rate (expressed as NO₂, lb/hr) for all three RTOs using average hourly NO_x emission rate at the exhaust of each RTO (item 2); (4) The total daily NO_x emission rates (lb/day) calculated at the end of each operating day from the measured total average hourly NO_x emission rates; (5) The total monthly NO_x emission rate (lb/month) calculated at the end of

each month using total daily NOx emissions rate; (6) The total annual NOx emission rate (lb/year, on a rolling 12-month basis) calculated at the end of each month using total monthly NOx emission rate; (7) Identification of the operating days when the calculated total hourly average NOx emission rates are in excess of the permitted NOx emissions, with the reasons for such excess emissions as well as a description of corrective actions taken; (8) Identification of the operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (9) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding such data; (10) Identification of each parameter used in calculations; (11) Identification of the times when the pollutant concentration exceeded full span of the CERMS; (12) Description of any modifications to the CERMS that could affect the ability of the CERMS to comply with Performance Specification 6; (13) Results of daily CERMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (14) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080 and 2201]

- The owner or operator may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 2201]

Compliance is expected with this rule.

Rule 1081 Source Sampling

This rule requires adequate and safe sampling facilities such as sampling ports, sampling platforms, access to the sampling platforms for use in sampling to determine compliance with emissions limits, and specifies methods and procedures for source testing and sample collection. The following conditions will be in permits N-8234-4-13, '5-13 and '6-13 and '18-0:

- The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]
- 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]

- Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081]
- The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

Compliance is expected with this Rule.

Rule 1100 Equipment Breakdown

This rule defines a breakdown condition and the procedures to follow if one occurs. The corrective action, the issuance of an emergency variance, and the reporting requirements are also specified. The following conditions will be included in the permits:

- The owner or operator shall notify the District of any breakdown condition (as defined in section 3.1 of District Rule 1100) as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
- The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]

Compliance is expected with this Rule.

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

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

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

- d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

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

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

N-8234-3-4

New surge bin, hammermill, and paired extruder bin

Per worksheet in **Appendix C**, potential emissions from the new surge bin and extruder bin (each) are not greater than 2 lb/day for PM₁₀ emissions. Thus, BACT is not triggered for these units.

Per section VII.C.2 above, potential emissions from the new hammermill are greater than 2 lb/day for PM₁₀ emissions. Thus, BACT is triggered for this unit.

N-8234-18-0

Natural gas combustion in dryer:

Per section VII.C.5 of above, PE2 is greater than 2 lb/day for NO_x and CO emissions from the dryer. Further, this facility's total CO emissions are less than 200,000 lb/yr. Thus, BACT is triggered for NO_x emissions only.

Process emissions:

Per section VII.C.5 of above, PE2 is greater than 2 lb/day for PM₁₀ and VOC emissions from drying and cooling processes (i.e., dryer cyclone, cooler cyclone, hot kibble conveying cyclone routed to the dryer, and vertical cooler cyclone, all routed through the RTOs). Thus, BACT is triggered for PM₁₀ and VOC emissions for the units in these processes.

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

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

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

$$\text{AIPE} = \text{PE2} - \text{HAPE}$$

Where,

AIPE = Adjusted Increase in Permitted Emissions, (lb/day)

PE2 = Post-Project Potential to Emit, (lb/day)

HAPE = Historically Adjusted Potential to Emit, (lb/day)

HAPE = PE1 x (EF2/EF1)

Where,

PE1 = The emissions unit's PE prior to modification or relocation, (lb/day)

EF2 = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF2 is greater than EF1 then EF2/EF1 shall be set to 1

EF1 = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

$$\text{AIPE} = \text{PE2} - (\text{PE1} * (\text{EF2} / \text{EF1}))$$

N-8234-2-6

Material conveying and transfer operations

Per section VII.C.2 above, PE2 is not greater than 2 lb/day for PM10 emissions. Thus, AIPE cannot be more than 2 lb/day for PM10 emissions, and BACT is not triggered.

N-8234-3-6

Hammermill system:

PE2 = 23.1 lb-PM₁₀/day

PE1 = 16.8 lb-PM₁₀/day

EF2 = 0.021 lb-PM₁₀/ton of finished product

EF1 = 0.021 lb-PM₁₀/ton of finished product

AIPE = 23.1 – (16.8 x (0.021/0.021)) = 23.1 – 16.8 = 6.3 lb-PM₁₀/day

Since AIPE is greater 2.0 lb/day, BACT is triggered for PM₁₀ emissions.

Truck loadout operation:

Per section VII.C.2 above, the total PE2 is not greater than 2 lb/day for PM₁₀ emissions. Thus, AIPE cannot be more than 2 lb/day for PM₁₀ emissions, and BACT is not triggered.

Material handling & Transfer operation:

Per section VII.C.2 above, the total PE2 is not greater than 2 lb/day for PM₁₀ emissions. Thus, AIPE cannot be more than 2 lb/day for PM₁₀ emissions, and BACT is not triggered.

d. SB 288/Federal Major Modification

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

Conservatively, it is assumed that the dryer and RTOs (see below) under this project triggers BACT for NO_x emissions.

2. BACT Guideline

N-8234-2-6

As noted above, the proposed operation does not trigger BACT; therefore, no BACT guideline is identified for this operation.

N-8234-3-4

As noted above, the new & existing hammermills triggers BACT for PM₁₀ emissions. BACT Guideline 5.2.4 will be used to address BACT requirements. Refer to **Appendix D** for the BACT guideline.

N-8234-18-0

Natural gas combustion in dryer:

As noted above, each existing dryer triggers BACT for NO_x emissions.

BACT guideline 5.2.6 was used to determine the BACT requirements in previous projects at this facility to address BACT for the dryer. This BACT guideline has been rescinded after this project was deemed complete. A project specific BACT analysis will be conducted for the proposed pet food dryer. .

Process emissions:

As noted above, BACT is triggered for PM₁₀ & VOC emissions.

BACT guidelines 5.2.6 & 5.2.7 were used to address BACT requirements for the dryer, cooler, hot kibble conveying cyclone routed to the dryer, and vertical cooler cyclone in previous projects at this facility to address BACT requirements. These BACT guidelines have been rescinded after this project was deemed complete. A project specific BACT analysis will be conducted for the proposed pet food dryer. .

3. Top-Down BACT Analysis

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

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

N-8234-3-4

The new and existing hammermills will be discharged through their own dust collectors. Thus, BACT requirements are satisfied.

N-8234-18-0

Natural gas combustion in dryer (NO_x):

Consistent with previously conducted Top-down BACT analysis under project N-1103242 & subsequent projects for this facility, it will be determined whether or not use of burners achieving 9 ppmvd NO_x @3% O₂ (1.1 ppmvd NO_x @ 3% O₂) is cost effective.

Using DPF's dryer vendor cost data, it is not cost effective to use ultra low NOx burner capable of achieving 9 ppmvd NOx @ 3% O₂ (1.1 ppmvd NOx @ 19% O₂). Thus, the use of an ultra low-NOx burner is not required.

DPF has proposed to comply with 2.1 ppmvd NOx @ 19% O₂. Thus, BACT requirements are satisfied.

Process emissions (PM10):

- Dryers (including discharge from hot kibble conveying operation)
- Dryer coolers
- Vertical coolers

Dryers (including discharge from hot kibble conveying operation)

Based on the Top-Down BACT analysis, the hot kibble conveying and drying operations are vented through high efficiency cyclones which are discharged into the RTO. Thus, BACT requirements are satisfied.

Dryer coolers

Vertical coolers

Based on the Top-Down BACT analysis, each dryer cooler and vertical cooler is vented through high efficiency cyclone which is discharged into the RTO. Thus, BACT requirements are satisfied.

Process emissions (VOC):

- Dryer (including discharge from hot kibble conveying operation)
- Dryer cooler
- Vertical cooler

Based on the project specific BACT analysis, Diamond has proposed to vent the exhaust from the dryer, dryer cooler and vertical cooler to a common header from where the exhaust is diverted into any or all three RTOs. These RTOs reduce at least 95% of the VOC emissions. Thus, BACT requirements are satisfied for VOC emissions.

As discussed above, the RTOs reduce VOC emissions, as well as, other odorous compounds from the pet food manufacturing operations. Consequently, each RTO is an emission control device. The District practice is not to evaluate BACT on emissions control devices. However, each RTO also generates process NOx emissions, as each RTO is believed to convert nitrogen bearing compounds into NOx emissions. To prevent NOx formation, the District evaluated the use of various technologies that could be installed upstream and/or downstream of the RTOs to minimize NOx emissions. These technologies include:

- Use of a scrubber upstream of the RTOs to remove amines, ammonia, and other nitrogen-bearing compounds in the exhaust stream prior to combustion in the RTOs,

- Use of a baghouse upstream of the RTO to capture particulates,
- Use of selective catalytic reduction (SCR) or eNOx downstream of the RTOs to control NOx emissions from the RTO exhausts.

The table below summarizes the cost effectiveness of the above emissions controls (Refer to **Appendix G** for detailed worksheet).

Location	Control Technique	Cost effectiveness (\$/ton of emission reduced)
Upstream of the RTO (pre-treatment)	Aqueous scrubber (Removes amines, ammonia, and other nitrogen bearing compounds)	\$275,706/ton of NOx reduced
	Baghouse (removes particulates causing NOx)	\$182,241/ton of NOx reduced
Downstream of the RTO (post-treatment)	Selective catalytic reduction (SCR) (Ammonia injection into SCR to convert NOx to N ₂)	\$121,674/ton of NOx reduced
	eNOx (low-temperature oxidation using ozone injection and conversion to HNO ₃)	\$173,836/ton of NOx reduced

The cost effectiveness (\$/ton) for each control device is above the cost effectiveness threshold of \$31,600/ton of NOx reduced. Therefore, none of these controls are required at this time.

B. Offsets

1. Offset Applicability

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

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

Offset Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE2	35,410	1,813	23,345	182,097	3,318
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	Yes	No	No	No	No

2. Quantity of District Offsets Required

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

The quantity of offsets in pounds per year 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 4.8

BE = PE1 for:

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

Otherwise,

BE = HAE

2.1 NO_x

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

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

The pet food manufacturing lines (N-8234-4, '-5, '-6) qualify as Clean Emission Units (defined in section 3.13 of Rule 2201), as line complies with Achieved-in-Practice BACT standards accepted by the District. Furthermore, there is no increase in cargo carrier emissions. Therefore, offsets can be determined as follows:

Offsets Required (lb/year) = $([PE2_{SLC} - BE_{SLC}]) \times DOR$

PE2_{SLC} = 33,639 lb-NO_x/yr

$$BE_{SLC} = 33,639 \text{ lb-NOx/yr}$$

$$\begin{aligned} \text{Offsets Required (lb/year)} &= ([33,639 - 33,639]) \times \text{DOR} \\ &= 0 \text{ lb-NOx/year} \end{aligned}$$

As discussed above, District offsets are triggered but not required for NOx under Rule 2201. However, this project does trigger a Federal Major Modification for NOx emissions; consequently, federal offsets are required for this project for NOx emissions. Pursuant to Section 7.4.2.1 of District Rule 2201, emission reduction credits used to satisfy federal offset quantities for NOx must be creditable and surplus at the time of use (ATC issuance).

Surplus at the Time Of Use Emission Reduction Credits

The applicant has stated that the facility plans to use ERC certificate N-1580-2 (or a certificate split from this certificate) to satisfy the federal offset quantities for NOx required for this project. Pursuant to the ERC surplus analysis in **Appendix K**, the District has verified that the credits from the ERC certificate N-1580-2 (or a certificate split from this certificate) are sufficient to satisfy the federal offset quantities for NOx required for this project.

Proposed Rule 2201 (offset) Conditions:

N-8234-18-0

- Prior to operating equipment under Authority to Construct permit N-8234-18-0, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter – 3,150 lb, 2nd quarter – 3,150 lb, 3rd quarter – 3,150 lb, and 4th quarter – 3,150 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201]
- ERC Certificate Number N-1580-2 (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]

3. 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 indicated in a previous section of this evaluation, the applicant is proposing to use ERC certificate N-1580-2 (or a certificate split from this certificate) to mitigate the increases of NOx emissions associated with this project. See **Appendix J** 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, and/or
- e. Any project which results in a Title V significant permit modification

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

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in Sections VII.C.8, this project does constitute a Federal Major Modification; therefore, public noticing for Federal Major Modification purposes is required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. The potential emissions from each new unit are not greater than 100 lb/day. Therefore public noticing is not required for this project for PE > 100 lb/day.

c. Offset Threshold

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

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO _x	35,410	35,410	20,000 lb/year	No
SO _x	1,563	1,813	54,750 lb/year	No
PM ₁₀	18,125	23,345	29,200 lb/year	No
CO	172,286	182,097	200,000 lb/year	No

VOC	2,844	3,318	20,000 lb/year	No
-----	-------	-------	----------------	----

As demonstrated above, offset thresholds are not surpassed for any pollutant with this project; therefore public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

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

SSIPE Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	35,410	35,410	0	20,000 lb/year	No
SO _x	1,813	1,563	250	20,000 lb/year	No
PM ₁₀	23,345	18,125	5,220	20,000 lb/year	No
CO	182,097	172,286	9,811	20,000 lb/year	No
VOC	3,318	2,844	474	20,000 lb/year	No

As demonstrated above, the SSIPE is not above the 20,000 lb/year threshold for any pollutant; therefore public noticing for SSIPE purposes is not required.

e. Title V Significant Permit Modification

Since this facility does not have a Title V operating permit, this change is not a Title V significant Modification, and therefore public noticing is not required.

2. Public Notice Action

As discussed above, public noticing is required for this project, as the project triggers a Federal Major Modification for NO_x emissions. Public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be electronically published on the District’s website prior to the issuance of the ATC permits 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:

N-8234-2-6

Material conveying and transfer operations:

- PM₁₀ emissions from material transfer and storage operations covered under this permit shall not exceed 0.00027 pounds per ton of material stored. [District Rule 2201]
- No more than 1,100 tons/day and 280,000 tons/year (12-month rolling basis) of total material dispensed from other outdoor silos/bins shall be transferred to storage bins in the mill tower. [District Rule 2201]

N-8234-3-4

Hammermill system:

- PM₁₀ emissions from each hammermill system shall not exceed 0.021 pounds per ton of material processed. [District Rule 2201]
- The amount of material processed through each hammermill system shall not exceed 1,100 tons in any one day. [District Rule 2201]
- The total material processed through all four hammermill systems shall not exceed 1,100 tons in any one day. [District Rule 2201]

Truck loadout operation:

- PM₁₀ emissions from the truck loadout operation shall not exceed 0.0009 pounds per ton of material loaded into truck trailers. [District Rule 2201]
- No more than 800 tons of material shall be loaded into truck trailers using truck loadout spout in any one day. [District Rule 2201]

Material handling & transfer operation:

- PM₁₀ emissions from the material handling and transfer operations (except for material handling during truck loadout operations) shall not exceed 0.0003 pounds per ton of material handled. [District Rule 2201]
- The total material handled & transferred by the operations covered under this permit shall not exceed 1,100 tons in any one day. [District Rule 2201]

N-8234-18

Natural gas combustion in dryer:

- Emissions from the dryer shall not exceed any of the following limits: 2.1 ppmvd NO_x @ 19% O₂ (0.024 lb-NO_x/MMBtu), 16.5 ppmvd CO @ 19% O₂ (0.112 lb-CO/MMBtu) and 0.00285 lb-SO_x/MMBtu. [District Rules 2201 and 4309]

Process emissions:

- PM₁₀ emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.0306 pounds per ton of finished material

produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]

- The post control VOC emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.005 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
- The amount of finished product produced under this line shall not exceed 1,040 tons in any one day. [District Rule 2201]
- The combined amount of finished product produced through all pet food manufacturing lines (N-8234-4, '-5, '-6 and '-18) shall not exceed 1,040 tons in any one day. [District Rule 2201]
- The RTO(s) shall reduce the VOC emissions (not including VOC emissions from natural gas combustion in the RTO) from pet food manufacturing by at least 95% (by weight). [District Rule 2201]

RTO emissions:

- The total NOx emissions from the three RTOs and four dryers combined shall not exceed any of the following limits: 8.343 lb/hr and 200.4 lb/day and 33,639 lb/yr (12-month rolling basis). Compliance with these mass emission rates shall be demonstrated using NOx (ppmvd) and exhaust gas flow rate (Q, dry standard cubic feet per minute, dscfm) data recorded by the CERMS, according to the following equation: Emissions (lb/hr) = (NOx ppmvd x 46 lb/lb-mol x 60 min/hr x Q (dscfm)) ÷ (379.5 dscf/lb-mol x 1,000,000). Daily emissions for each RTO shall be calculated by summing the hourly emissions for the respective calendar day. Hourly or daily emissions data shall be used to calculate monthly emissions. Monthly data shall be used to calculate rolling 12-month totals. [District Rule 2201]
- Emissions due to natural gas combustion in each RTO shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 0.88 lb-CO/MMBtu and 0.0055 lb-VOC/MMBtu. [District Rule 2201]
- Heat input rate to each RTO shall not exceed any of the following limits: 184.8 MMBtu/day and 67,082 MMBtu/year (12-month rolling total). [District Rule 2201]
- Combined total heat input rate to all three RTOs shall not exceed 156,816 MMBtu/year (12-month rolling total). [District Rule 2201]

In order to ensure compliance with the proposed NOx emissions, the following condition will be included in permit N-8234-18-0:

- NOx emissions associated with the dryer, process, and the RTOs under this line shall not exceed 8,400 pounds in any 12 consecutive month rolling-period. The owner or operator shall keep sufficient records to demonstrate compliance with emission limit. These

records shall contain calculated NO_x emission quantity as well as each process variable used in the respective calculations. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

N-8234-2-6

Material conveying and transfer operations:

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

The potential emissions are estimated using generally accepted emissions factors. Further, none of the units served by dust collector has daily or annual emissions above the threshold specified in above paragraph. Therefore, source testing is not required for these operations.

N-8234-3-4

Hammermill system:

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

The potential emissions are estimated using PM₁₀ emission factor that was derived using source test conducted on September 11, 2012 by sampling a baghouse exhaust servicing a hammermill. Therefore, no source testing is required.

Truck loadout operation:

Material handling & transfer operation:

The potential emissions were estimated using generally accepted emission factors; therefore, source testing is not required.

N-8234-18-0

Natural gas combustion in dryer:

DPF will be required to conduct initial source test to verify compliance with the proposed NO_x and CO emissions limit within 180 days of initial startup. Upon successful compliance demonstration, source testing is required to be repeated at least once every 24-months. The periodic testing requirements is consistent with the testing requirements in Rule 4309, which is applicable to the proposed dryer.

Process emissions:

District Policy APR 1705 (10/9/97), page 3, states that units equipped with afterburner, thermal incinerator, or catalytic incinerator for controlling VOC must be tested upon initial start-up and annually thereafter.

The exhaust from pet food manufacturing operations is directed into a common header (main duct) from where the stream is equally divided into three ducts, one for each of the three RTO systems.

DPF has proposed to reduce at least 95% (by wt.) of the influent VOC emissions from pet food processing operations including the newly proposed pet food manufacturing line. Therefore, they are required to conduct source testing within 180-days of initial startup and at least once every 12-months thereafter. After demonstrating compliance on two consecutive 12-monthly source tests, DPF may defer the source testing up to 36 months. If the results of the 36-month source test does not demonstrate compliance with the applicable emission limits, the source testing frequency shall revert to at least once every 12-month.

DPF will be required to conduct source testing under normal operating scenarios provided that normal conditions accommodate at least three 30-minute test runs. The pet food manufacturing line(s) must be operated at or above 90% of the maximum hourly process rate of the recipe(s) selected. The pet food recipe(s) chosen shall include at least 3% (by weight) of fresh meat that includes moisture in the meat. If multiple pet food lines are operated during the test, the operator must utilize the average production rate (tons of finished product produced) to demonstrate compliance with VOC emission limits (pounds per ton of finished product produced).

As stated previously, DPF has proposed to reduce at least 95% (by wt.) of the influent VOC emissions. DPF was required to conduct a source test to measure VOC, both at the inlet and outlet of at least one of the RTO systems while operating all pet food manufacturing line(s) under normal conditions. The results of this source test will verify compliance with VOC emission limits and the proposed VOC control efficiency.

DPF will continually be required to collect samples from inlet and the outlet of an RTO. The outlet or exhaust of the RTO emissions will include some VOC emissions from natural gas fuel combustion in the RTO, therefore, DPF may calculate the process VOC emissions in the following manner:

$$VOC_P = VOC_{inlet} - VOC_{outlet}$$

Where,

VOC_P = Process VOC emissions, lb/hr

VOC_{inlet} = VOC, lb/hr from the samples collected from inlet of the RTO

VOC_{outlet} = VOC, lb/hr from the samples collected from outlet of the RTO excluding VOC emissions natural gas combustion in the RTO calculated as follows: 0.0055 lb/MMBtu x actual heat input rate to RTO during each test run

The process emissions calculated using above equation will be required to be translated into production basis (lb-VOC/ton of product production) using actual average pet food processing rate(s).

For process stream similar to DPF, combustion of VOC is believed to cause additional PM₁₀ emissions. Therefore, DPF is required to conduct a one time initial test to verify compliance with the PM₁₀ emission limit under this new configuration, that is, venting all four pet food lines into the common header.

Note that the pet food manufacturing lines are identical, therefore, demonstration of compliance by conducting a test on a single RTO unit is sufficient to demonstrate compliance for all units. Failure to comply with the emission limits or control efficiency will constitute a violation of all four pet food line permits.

RTO emissions:

NOx emissions will generate from natural gas combustion as well as from oxidation of exhaust stream from pet food operations, and can vary from one pet food recipe to another. The permitted NOx limits are very close to the tested levels. To ensure compliance with these NOx limits, DPF had installed CERMS on each RTO stack to monitor and record the NOx emissions rate (see monitoring section below). In addition, NOx emissions at the exhaust of each RTO are required to be tested via certified source test company within 180 days of initial startup and at least once every 24 months thereafter. All RTOs are required to be operated and tested simultaneously while treating exhaust stream from the pet food manufacturing lines.

CO emissions will generate from natural gas combustion as well as from oxidation of exhaust stream from pet food operations, and can vary from one pet food recipe to another. As noted in the application review under project N-1191493. source test conducted on January 24, 2019 showed less than 0.05 lb-CO/MMBtu (steady state, burner on with production) and less than 0.24 lb-CO/MMBtu (startup, no production). Based on these results, a single limit of 0.88 lb-CO/MMBtu was established for all operating scenarios including startup and steady-state. Since there is a significant margin of compliance between the permitted value (0.88 lb-CO/MMBtu) and the tested values (0.05 lb-CO/MMBtu and 0.24 lb-CO/MMBtu), it is expected that the existing and new equipment will operate in compliance with CO emissions. Therefore, no additional source testing is required to verify CO emission limits.

2. Monitoring

N-8234-2-6

Material conveying and transfer operations:

No monitoring is required to demonstrate compliance with Rule 2201.

N-8234-3-4

Hammermill system, Truck loadout operation, and Material handling and transfer operation:

No monitoring is required to demonstrate compliance with Rule 2201.

N-8234-18-0

Natural gas combustion in dryer:

The dryer will be required to be monitored for NO_x and CO emissions on a monthly basis using a portable analyzer. This monitoring method and the frequency is consistent with the other dryers at this facility.

Process emissions:

RTO emissions:

DPF will be required to monitor, record and establish a minimum temperature of the RTO combustion chamber while demonstrating successful compliance with the permitted VOC and PM₁₀ emission limits.

During January 24, 2019 source testing, while operating existing pet food processing lines, RTO combustion chamber temperature was 1,650°F. DPF has successfully demonstrated compliance with VOC, PM₁₀, and control efficiency limits under this test. Therefore, RTO combustion chamber is continually required to be maintained at or above 1650°F during pet food manufacturing operation for the proposed configuration of venting of all four pet food manufacturing lines.

DPF was required to install, operate and maintain CERMS on each RTO to monitor and record NO_x emissions rate in the exhaust of each RTO. Refer to discussion under Rule 1080 above.

3. Recordkeeping

N-8234-2-6

Material conveying and transfer operations:

The existing recordkeeping requirements will be replicated in this permit. No additional recordkeeping is required.

N-8234-3-4

Hammermill system, Truck loadout operation, and Material handling and transfer operation:

The existing recordkeeping requirements will be replicated in this permit. No additional recordkeeping is required.

N-8234-18-0

The new pet food manufacturing line will be identical to the existing pet food manufacturing lines; therefore, recordkeeping requirements established in the previous ATCs N-8234-4-12 through '6-12 will be replicated into this permit. All records are required to be kept for a period of at least five year from the date each record is entered in a log book.

4. Reporting

N-8234-2-6

Material conveying and transfer operations:

No reporting is required to demonstrate compliance with Rule 2201.

N-8234-3-4

Hammermill system, Truck loadout operation, and Material handling and transfer operation:

No reporting is required to demonstrate compliance with Rule 2201.

N-8234-18-0

Source testing reports are required to be submitted to the District within 60 days after completing each source test.

F. Ambient Air Quality Analysis (AAQA)

Section 4.14 of District Rule 2201 requires that an AAQA be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The District's Technical Services Division conducted the required analysis. Refer to **Appendix F** of this document for the AAQA summary sheet.

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

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

Compliance is expected with this rule.

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

As discussed above, this facility is becoming a major source due to this project. Pursuant to Rule 2520 and as required by permit condition, the facility will have up to 12 months from the date of ATC issuance to either submit a Title V Application or comply with District Rule 2530 *Federally Enforceable Potential to Emit*.

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 pet food manufacturing operations.

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 pet food manufacturing operations.

Rule 4101 Visible Emissions

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

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

Compliance is expected with this Rule.

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. The following condition will be included in each permit:

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

Further, as part of permitting the fourth pet food manufacturing line, DPF has prepared an Odor Management Plan. This plan has Tiered approach to investigate and alleviate an odor complaint. A copy of the plan is included in **Appendix H** of this document. The following condition will be included in permit N-8234-4 through '-6 and '-18:

- Upon commencing the operation of pet food manufacturing line under permit N-8234-18, the operator shall investigate and address each confirmed odor complaint according to the procedure outlined in the latest 'ODOR MANAGEMENT PLAN' (March 2021 or later version). The operator shall keep all records including but not limited to the date of odor complaint, time when the operator initiated the response, and any corrective actions taken to alleviate the odor complaint. [District Rule 4102]

California Health & Safety Code 41700 (Health Risk Assessment)

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

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification of an existing source shall not result in an increase in cancer risk greater than the District’s significance level (20 in a million) and shall not result in acute and/or chronic risk indices greater than 1.

According to the Technical Services Memo for this project, the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The resulting prioritization score, acute hazard index, chronic hazard index, and cancer risk for this project is shown below.

Health Risk Assessment Summary	
	Worst Case Potential
Prioritization Score	>1
Cancer Risk	1.31E-09
Acute Hazard Index	0.00
Chronic Hazard Index	0.00
T-BACT Required?	No

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk is not above the District’s thresholds for triggering T-BACT requirements; therefore, compliance with the District’s Risk Management Policy is expected.

In accordance with District policy APR 1905, no further analysis is required, and compliance with District Rule 4102 requirements is expected.

See **Appendix D**: Health Risk Assessment Summary

Compliance is expected with this Rule.

Rule 4201 Particulate Matter Concentration

Section 3.0 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

N-8234-2-6:

This permit involves multiple operations. The emission rate from a single source operation for which the exhaust is released through the dust collector is estimated below:

PM₁₀ emissions = 0.001 lb-PM₁₀/hr [0.025 lb-PM₁₀/day ÷ 24 hr/day]
 Fraction (lb-PM₁₀/lb-PM) = 100%

Exhaust flow rate = 638 acfm
Exhaust gas temperature = 70°F
Moisture in exhaust gas = 5% (assumed)

$$PM \left(\frac{gr}{dscf} \right) = \frac{\left(0.001 \frac{lb-PM}{hr} \right) \left(7,000 \frac{gr-PM}{lb-PM} \right) \left(\frac{hr}{60 \text{ min}} \right)}{\left(638 \frac{ft^3}{min} \right) \left(\frac{460+60}{460+70} \right) (1-0.05)} = 0.0 \frac{gr-PM}{dscf}$$

N-8234-3-4:

This permit involves multiple operations. Off of these operations, hammermills result in the highest amount of PM₁₀ emissions. Source test conducted on one of the hammermills indicate grain loading factor of 0.0032 gr/dscf, which is below the 0.1 gr/dscf limit. Therefore, these operations are expected to comply with the requirements of this rule. Note that the potential PM₁₀ emissions from the other source operations are insignificant (~0 lb/day).

N-8234-18-0:

Natural gas combustion in dryer:

Process emissions:

RTO emissions:

PM₁₀ emissions = 1.502 lb-PM₁₀/hr [1.325 lb-PM₁₀/hr + 0.177 lb-PM₁₀/hr]
Fraction (lb-PM₁₀/lb-PM) = 100%
Exhaust flow rate = 61,797 acfm (each RTO)
Exhaust gas temperature = 218°F
Moisture in exhaust gas = 7% (assumed)

$$PM \left(\frac{gr}{dscf} \right) = \frac{\left(1.502 \frac{lb-PM}{hr} \right) \left(7,000 \frac{gr-PM}{lb-PM} \right) \left(\frac{hr}{60 \text{ min}} \right)}{\left(61,797 \frac{ft^3}{min} \right) \left(\frac{460+60}{460+218} \right) (1-0.07)} = 0.0 \frac{gr-PM}{dscf}$$

Since PM emissions are not in excess of 0.1 gr/dscf, compliance is expected with this rule.

Rule 4202 Particulate Matter – Emission Rate

Section 4.0 of this rule, a person shall not discharge into the atmosphere from any one source operation PM emissions in excess of the maximum allowable limit (E_{max}), in lb/hr, determined by the following equation:

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

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

N-8234-2-6:

This permit involves multiple operations and the process rate of these operations varies from 275 tons/day to 1,100 tons/day. Assuming 24 hour/day operation, the process rate varies from 11.5 tons/hr to 45.8 tons/hr. Using the minimum process rate of 11.5 tons/hr, the maximum

allowable emission rate would be:

$$\begin{aligned} E_{\text{Max}} &= 3.59 (11.5)^{0.62} \\ &= 16.3 \text{ lb-PM/hr} \end{aligned}$$

The maximum PM emissions from a single source operation are 0.069 lb/day. Assuming 24 hour/day operation, the hourly PM emissions would be 0.003 lb/hr.

$$E_{\text{Proposed}} = 0.003 \text{ lb-PM/hr}$$

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

N-8234-3-4:

This permit involves multiple operations. Off of these operations, hammermills results in the highest PM₁₀ emissions. The process of each hammermill could be up to 1,100 tons/day. Assuming 24 hour/day operation, the process rate would be 45.8 tons/hr.

$$\begin{aligned} E_{\text{Max}} &= 17.31 (45.8)^{0.16} \\ &= 31.9 \text{ lb-PM/hr} \end{aligned}$$

The maximum PM emissions from a single source operation are 0.069 lb/day. Assuming 24 hour/day operation, the hourly PM emissions would be 0.003 lb/hr.

$$\begin{aligned} E_{\text{Proposed}} &= (0.021 \text{ lb-PM/ton}) \times (1,100 \text{ ton/day}) \times (\text{day}/24 \text{ hr}) \\ &= 1.0 \text{ lb-PM/hr} \end{aligned}$$

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

N-8234-18-0:

Natural gas combustion in dryer:

RTO emissions:

The units use gaseous fuel, which can't be a part of the process weight per definition of process weight. Therefore, maximum allowable limits cannot be determined.

Process emissions:

This pet food line could produce up to 1,040 tons/day of finished pet food. Using 24 hours per day operation, the hourly process rate would be 45.8 tons/hr.

$$\begin{aligned} E_{\text{Max}} &= 17.31 (45.8)^{0.16} \\ &= 31.9 \text{ lb-PM/hr} \end{aligned}$$

PM emissions release through all three RTOs would be 1.502 lb/hr, as noted under Rule 4201.

$$E_{\text{Proposed}} = 1.502 \text{ lb-PM/hr}$$

Since the proposed emission rate is below the maximum allowable PM emission rate, compliance is expected with this rule

Rule 4301 Fuel Burning Equipment

The requirements of section 5.0 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

N-8234-2-6, -3-4:

These permits don't involve any fuel burning equipment. Therefore, this rule does not apply.

N-8234-18-0:

Natural gas combustion in dryer:

RTO emissions:

The combined total emissions from all dryers and RTOs are as follows:

$$\text{NO}_x = 8.583 \text{ lb/hr}$$

$$\text{SO}_x = 0.153 \text{ lb/hr}$$

$$\text{PM} = 1.502 \text{ lb/hr (0.177 lb/hr + 1.325 lb/hr)}$$

Further, PM grain loading using generally accepted emission factor for natural gas combustion is as follows:

$$\begin{aligned} \text{PM} \left(\frac{\text{gr}}{\text{dscf}} \right) &= \frac{\text{PM Emissions} \left(\frac{\text{lb - PM}}{\text{MMBtu}} \right) \times 7,000 \frac{\text{gr - PM}}{\text{lb - PM}}}{F_{\text{factor CO}_2} \left(\frac{\text{dscf}}{\text{MMBtu}} \right) \times \left(\frac{100\%}{12\%} \right)} \\ &= \frac{\left(0.0076 \frac{\text{lb - PM}}{\text{MMBtu}} \right) \left(7,000 \frac{\text{gr - PM}}{\text{lb - PM}} \right)}{\left(1,024.2 \frac{\text{dscf}}{\text{MMBtu}} \right) \left(\frac{100\%}{12\%} \right)} \\ &= 0.0 \frac{\text{gr - PM}}{\text{dscf}} \end{aligned}$$

The proposed emissions are below the limits of this Rule; therefore, compliance is expected.

Rule 4309 Dryer, Dehydrators, and Ovens

Section 2.0 - Applicability

This rule applies to any dryer, dehydrator, or oven that is fired on gaseous fuel, liquid fuel, or is fired on gaseous and liquid fuel sequentially, and the total rated heat input for

the unit is 5.0 million British thermal units per hour (5.0 MMBtu/hr) or greater.

Each pet food dryer under permit N-8234-4, '-5 and '-6 and the newly proposed pet food manufacturing line (N-8234-18) is rated at 10 MMBtu/hr. Thus, each dryer is subject to the requirements of this rule.

For existing dryers, permits N-8234-4, '-5 and '-6 contain all applicable requirements from this rule; therefore, continued compliance is expected.

Rule compliance discussion for the new dryer being permitted under N-8234-18 is as follows:

Section 5.0 - Requirements

Section 5.1 includes requirements for dehydrators. This section is not applicable to the pet food dryers.

Section 5.2 requires NO_x and CO emissions shall not exceed any limits specified in Table 1. For each pet food dryer, limits are 4.3 ppmvd NO_x @ 19% O₂ and 42 ppmvd CO @ 19% O₂ for gaseous fuel fired units.

DPF has proposed to achieve 2.1 ppmvd NO_x @ 19% O₂ and 16.5 ppmvd CO @ 19% O₂ for each dryer. The following condition will be included in permit N-8234-18:

- Emissions from the dryer shall not exceed any of the following limits: 2.1 ppmvd NO_x @ 19% O₂ (0.024 lb-NO_x/MMBtu), 16.5 ppmvd CO @ 19% O₂ (0.112 lb-CO/MMBtu) and 0.00285 lb-SO_x/MMBtu. [District Rules 2201 and 4309]

Section 5.3 includes startup and shutdown provisions. Section 5.3.1 states units not equipped with NO_x exhaust control system, duration of each start-up and each shutdown shall not exceed one hour.

DPF has not requested to establish any startup or shutdown provisions for the dryers. Therefore, no such provision is included in the permits.

Section 5.4 includes monitoring requirements. Section 5.4.1 requires the uses one of the following techniques: install and maintain an APCO-approved CEMS for NO_x and O₂, or install and maintain an alternate emission monitoring method.

DPF has proposed to utilize portable analyzer to measure NO_x, CO and O₂ concentrations on a monthly basis. This monitoring scheme satisfies the requirements of this section. The following conditions will be included in permit N-8234-18:

- The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ of the dryer (at the exhaust stack of the MAC HE60 cyclone, upstream of the duct collecting discharge from other process streams), at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started

solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]

- If either the dryer NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309]

Section 5.5 lists compliance determination criteria in sections 5.5.1 through 5.5.6. The following conditions will be included in permit N-8234-18:

- All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rules 2201 and 4309]
- All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4309]

Section 6.0 - Administrative Requirements

Section 6.1 requires the operator to retain records of NO_x and CO emissions. The records are required to be kept on-site for a period of five years. The following conditions will be included in permit N-8234-18:

- The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]

- All records shall be maintained and retained on-site for minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 2201 and 4309]

Section 6.2 includes various test methods. The following conditions will be included in permit N-8234-18:

- NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 2201 and 4309]
- CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201 and 4309]
- Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201 and 4309]

Section 6.3 lists compliance demonstration criteria in section 6.3.1 through 6.3.9. The following conditions will be included in permit N-8234-18:

- Source testing to determine NO_x and CO emissions from the dryer at the exhaust stack of the MAC HE60 cyclone by obtaining samples upstream of the duct collecting discharge from other process streams shall be conducted at least once every 24 months. [District Rule 4309]
- Source testing to determine NO_x and CO emissions from the dryer at the exhaust stack of the MAC HE60 cyclone by obtaining samples upstream of the duct collecting discharge from other process streams shall be conducted within 180 days of initial startup and at least once every 24 months. [District Rule 4309]
- 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 Rules 1081 and 4309]
- All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rules 2201 and 4309]
- All dryer test results for NO_x and CO shall be reported in ppmv @ 19% O₂ (or no correction if measured above 19% O₂), corrected to dry stack conditions. [District Rule 4309] N
- 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 2201 and 4309]

Section 7.0 – Compliance Schedule

This section list compliance schedule for existing units subject to the requirements of this rule. The new dryer and the existing dryers are expected to be operated in compliance with the requirements this rule.

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.

For the proposed gaseous fuel combustion at a reference state of 60 °F, the Rule 4801 limit of 2,000 ppmvd is equivalent to:

$$\frac{(2000 \text{ ppmvd}) \left(8,578 \frac{\text{dscf}}{\text{MMBtu}} \right) \left(64 \frac{\text{lb} - \text{SO}_x}{\text{lb} - \text{mol}} \right)}{\left(379.5 \frac{\text{dscf}}{\text{lb} - \text{mol}} \right) (10^6)} \cong 2.9 \frac{\text{lb} - \text{SO}_x}{\text{MMBtu}}$$

N-8234-18:

SO_x emissions from the dryers, and RTO systems are based on 1.0 gr-S/100 scf, equivalent to 0.00285 lb/MMBtu. Since these emissions are less than 2.9 lb/MMBtu, each unit is expected to operate in compliance with this Rule.

California Health & Safety Code 42301.6 (School Notice)

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

California Environmental Quality Act (CEQA)

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

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;

- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

District CEQA Findings

The City of Ripon (City) is the public agency having principal responsibility for approving the Project. As such, the City served as the Lead Agency for the project. On April 19, 2021, the City certified the Environmental Impact Report (EIR), finding that odor impacts would be reduced to a less than significant level on air quality. The City approved the project.

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

The District's engineering evaluation of the project (this document) demonstrates that the District would impose permit conditions requiring the applicant to meet BACT. Thus, the District concludes that through a combination of project design elements and permit conditions, project specific stationary source emissions will be reduced to less than significant levels.

The City concluded that impacts on air quality would be less than significant with mitigation incorporated. As a Responsible Agency the District is required to issue findings for significant air quality impacts detailed in the Lead Agency's EIR. The District has required all feasible mitigation measures to lessen stationary source emissions impacts to air quality from this project. As a single purpose agency, the District lacks the Lead Agency's broader scope of authority over the project and does not believe that it should overrule the decisions made by the Lead Agency. Accordingly, after considering the Lead Agency's EIR the District finds that it had no basis on which to disagree with the EIR.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC permits N-8234-2-6, '-3-3, '-4-13 through '-6-13 and '-18-0 subject to the permit conditions on the attached draft ATCs in **Appendix A**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
N-8234-2-6	3020-01 F	563 hp Total electric motor hp	\$731
N-8234-3-4	3020-01 H	2,191 hp Total electric motor hp	\$1,238
N-8234-4-13 through '-6-13, and '-18-0 (each)	3020-02 H	15.775 MMBtu/hr*	\$1,238

*10 MMBtu/hr per food line + (7.7 MMBtu/hr-RTO x 3 RTO/4 pet food lines) = 15.775 MMBtu/hr

Appendixes

- A: Draft ATCs
- B: PTOs N-8234-2-5, '-3-2 and ATC N-8234-4-12, '-5-12 and '-6-12
- C: Pre and Post Project Potential to Emit for N-8234-2 and '-3
- D: BACT Guidelines
- E: BACT Analysis
- F: HRA Summary & AAQA Analysis
- G: Cost Effectiveness Analysis for NOx Reduction Techniques
- H: Quarterly Net Emissions Change
- I: Odor Management Plan
- J: ERC Withdrawal Calculations
- K: ERC Surplus Analysis

Appendix A
Draft ATCs

*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: N-8234-2-6

LEGAL OWNER OR OPERATOR: DIAMOND PET FOODS - RIPON

MAILING ADDRESS: 942 S STOCKTON AVE
RIPON, CA 95366

LOCATION: 942 S STOCKTON AVE
RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD MATERIAL DISPENSING, CONVEYING AND STORAGE OPERATIONS: INCREASE TOTAL THROUGHPUT OF PET FOOD MATERIAL DISPENSING, CONVEYING AND STORAGE OPERATIONS TO 1,100 TONS PER DAY AND 280,000 TONS PER YEAR

CONDITIONS

1. Dispensing System: The material in three 21,430 cubic feet (each) silos in storage area A (East) shall be dispensed via enclosed reversible screw conveyors into enclosed drag conveyor(s) A-3 or A-4. The material in six 2,560 cubic feet (each) bins in storage area A (East) shall be dispensed into enclosed belt conveyor C. The material in three 21,430 cubic feet (each) silos in storage area B (West) shall be dispensed via enclosed reversible screw conveyors into enclosed drag conveyor(s) A-1 or A-2 and then dispensed into enclosed belt conveyor D. The material in six 2,560 cubic feet (each) bins in storage area B (West) is dispensed from the bins directly to the mill tower via enclosed transfer drag conveyor C or D. [District Rule 2201]
2. Conveying and Storage System: Enclosed drag conveyors C and D transfer material into enclosed bucket elevators (leg #3, leg #4, respectively) that feed any of the 75 bins in the mill tower. The enclosed bucket elevators (leg #3, leg #4), associated drag conveyors, and each mill tower bin shall be equipped with Horizon Systems Model 21VFTC6 (or equal) cartridge dust collector systems. [District Rule 2201]
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. All exhaust stacks under this permit shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

N-8234-2-6 : Jul 8 2022 8:46AM -- KAHLONJ : Joint Inspection NOT Required

6. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
7. Visible emissions at the exhaust of each dust collector system shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
8. PM10 emissions from material transfer and storage operations covered under this permit shall not exceed 0.00027 pounds per ton of material stored. [District Rule 2201]
9. No more than 1,100 tons/day and 280,000 tons/year (12-month rolling basis) of total material that is dispensed from outdoor silos/bins shall be transferred to storage bins in the mill tower. [District Rule 2201]
10. The owner or operator shall keep daily records of the total material transferred to storage bins in the mill tower. [District Rule 2201]
11. The owner or operator shall keep monthly records of the total material transferred to storage bins in the mill tower. These monthly records shall be used to determine compliance with annual processing rate limits on a 12-month rolling basis. [District Rule 2201]
12. 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 and 2201]

DRAFT

*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

DRAFT

ISSUANCE DATE: DRAFT

PERMIT NO: N-8234-3-4

LEGAL OWNER OR OPERATOR: DIAMOND PET FOODS - RIPON

MAILING ADDRESS: 942 S STOCKTON AVE
RIPON, CA 95366

LOCATION: 942 S STOCKTON AVE
RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD MATERIAL DISPENSING, MIXING, GRINDING AND SCREENING, EXTRUSION SURGE BINS, AND ASSOCIATED CONVEYING OPERATIONS: ADD ONE NEW SURGE BIN, ONE NEW HAMMERMILL SYSTEM AND A NEW SET OF EXTRUDER SURGE BINS, REMOVE VIBRATORY SCREENER ASSOCIATED WITH THREE HAMMERMILLS, INCREASE EACH HAMMERMILL THROUGHPUT TO 1,100 TONS PER DAY

CONDITIONS

1. Dispensing System: The material is dispensed from the bins in the mill tower to their associated scale bins. There are 4 scale bins located under the 75 bins. Each scale services approximately 25% of the bins in the mill tower. The four scale bins dispense into a six ton dual ribbon mixer described in item the condition below. Each scale bin shall be equipped with HORIZON SYSTEMS Model 21VFTC6 (or equal) cartridge dust collector system. [District Rule 2201]
2. Mixing and Conveying System: The material in the 4 scale bins is dispensed into an enclosed six ton dual ribbon mixer. There is one mixer surge bin with a connected screw conveyor that transfers the material into another screw conveyor served by HORIZON SYSTEMS MODEL 21VFTC6 (or equal) dust collector system that either transfers the material into an enclosed bucket elevator feeding an enclosed transfer auger or a portion of the material into a truck loadout spout. The enclosed transfer auger feeds four surge bins one associated with each hammer mill. Each surge bin shall be equipped with HORIZON SYSTEMS MODEL 21VFTC6 (or equal) dust collector system. The truck loadout spout distributes product into a turn-head that services 4 unloading bins. Each unloading bin is vented with HORIZON SYSTEMS Model 21VFTC6 (or equal) dust collector system. The loadout spout of each unloading bin shall have an extended rubber sleeve to minimize entrainment of material dust into the atmosphere. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

N-8234-3-4 : Jul 8 2022 8:46AM -- KAHLONJ : Joint Inspection NOT Required

3. Grinding, Screening, and Conveying System: There are four identical hammermill systems. Each system consists of a hammer mill feeding system, a hammermill, a hammermill plenum, and an enclosed screw conveyor. Each hammermill/plenum shall be equipped with MAC LST AIR 96LST196 (or equal) baghouse. The ground material from each hammermill system shall be pneumatically transferred using a filter receiver system into four sets of a paired extruder surge bin system (mentioned in the condition below). The displaced air from the filter receiver system shall be vented through a HORIZON SYSTEMS 40SWRDL 16 (or equal) baghouse. [District Rule 2201]
4. Extruder Surge Bins: Four sets of identical extruder surge bins, each set contains two bins, each with dimensions approx. 8' x 8' x 20', and each bin shall be equipped with HORIZON SYSTEMS MODEL 21VFTC6 (or equal) cartridge dust collector system. [District Rule 2201]
5. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. Particulate matter, at exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
7. All exhaust stacks under this permit shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
8. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
9. Visible emissions, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.) shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
10. PM10 emissions from each hammermill system shall not exceed 0.021 pounds per ton of material processed. [District Rule 2201]
11. The amount of material processed through each hammermill system shall not exceed 1,100 tons in any one day. [District Rule 2201]
12. The total material processed through all four hammermill systems shall not exceed 1,100 tons in any one day. [District Rule 2201]
13. PM10 emissions from the truck loadout operation shall not exceed 0.0009 pounds per ton of material loaded into trucks. [District Rule 2201]
14. No more than 800 tons of material shall be loaded into trucks using truck loadout spout in any one day. [District Rule 2201]
15. PM10 emissions from the material handling and transfer operations (except for material handling during truck loadout operations) shall not exceed 0.0003 pounds per ton of material handled. [District Rule 2201]
16. The total material handled & transferred by the operations covered under this permit shall not exceed 1,100 tons in any one day. [District Rule 2201]
17. The permittee shall keep records of the date, the amount of total material processed in hammermill systems, and the amount of material loaded into trucks. [District Rule 2201]
18. {3246} 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]

DRAFT

*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: N-8234-4-13

LEGAL OWNER OR OPERATOR: DIAMOND PET FOODS - RIPON

MAILING ADDRESS: 942 S STOCKTON AVE
RIPON, CA 95366

LOCATION: 942 S STOCKTON AVE
RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD PROCESSING LINE #1: CLARIFY TOTAL NUMBER OF DRYERS AND TOTAL PET FOOD PRODUCTION FOR THE ENTIRE PLANT

CONDITIONS

1. Authority to Construct N-8234-4-12 shall be implemented prior to, or concurrently with the implementation of this Authority to Construct permit. [District Rule 2201]
2. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Upon commencing the operation of pet food manufacturing line under permit N-8234-18, the operator shall investigate and address each confirmed odor complaint according to the procedure outlined in the latest 'ODOR MANAGEMENT PLAN' (March 2021 or later version). The operator shall keep all records including but not limited to the date of odor complaint, time when the operator initiated the response, and any corrective actions taken to alleviate the odor complaint. [District Rule 4102]
4. Particulate matter, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. All exhaust stacks under this permit shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
6. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

N-8234-4-13 : Jul 8 2022 8:46AM -- KAHLONJ : Joint Inspection NOT Required

7. Material Dispensing, Kibble Manufacturing, and Conveying Systems: The material from the extruder surge bin is dispensed into an extruder bin from where the material is transferred into an EXTRU-TECH 24X144 steam-conditioner system. The material is extruded to form kibbles. The kibbles are pneumatically conveyed using HEPA filtered air into a dryer receiving chamber using HORIZON SYSTEMS HT-68 high volume cyclone. The owner or operator shall install and maintain a duct work to discharge exhaust from the wet cyclone (Horizon HT-68) into the duct connected to the RTO. [District Rules 2201 and 4201]
8. Dryer System: The system consists of an EXTRU-TECH 1053-2P-AF11, 10 MMBtu/hr (total) direct-fired natural gas fired dryer with five drying sections, each section is equipped with an ECLIPSE WINNOX WX0200 burner with a maximum heat input rate of 2.0 MMBtu/hr. The dryer exhaust is vented to a MAC HE60 high efficiency cyclone. The owner or operator shall install and maintain a duct work to discharge exhaust from the dryer cyclone (MAC HE60) into the duct connected to the RTO. [District Rules 2201 and 4102]
9. Cooler and Conveying System: The system consists of three cooler sections, all vented to a MAC high efficiency cyclone, a discharge conveyor for the transfer of dried kibbles into a hopper. The material from the hopper is pneumatically conveyed to an enclosed shaker screener. The owner or operator shall install and maintain a duct work to re-circulate the exhaust from the dryer cooler cyclone (MAC) into the Dryer System. [District Rules 2201 and 4102]
10. Fines Collection and Conveying System: This system collects fines from two locations in the dryer, the dryer cyclone discharge, and the cooler cyclone discharge, and vents these fines to a HORIZON SYSTEMS 28S WRDL8 baghouse. This baghouse is vented indoors. [District Rule 2201]
11. Screening and Conveying System. The system consists of an enclosed shaker screener, an enclosed surge bin, and an enclosed weigh belt. The fines (rejects) are dropped to the dumpsters. [District Rule 2201]
12. Coating and Conveying System: The system consists of a hopper where material from a weight belt is sprayed with chicken fat and canola oil (or other similar ingredients) and a coating reel where dry dog/cat digest and probiotics (or other similar ingredients) are sprinkled to be absorbed into the kibbles. The kibbles are then conveyed pneumatically to a vertical cooler system using a filter receiver system with a static sock filter. [District Rule 2201]
13. Vertical Cooler and Conveying System: A vertical cooler vented to a MAC HE52 high efficiency cyclone. The dried material falls on a vibratory pan on sliding rails. The material (accepts) from the vibratory pan drops into a hopper from where the dried kibbles are pneumatically conveyed to the finished product bins. Each bin shall be vented to a static sock filter. The fines (rejects) from MAC HE52 cyclone discharge and vibratory pan are conveyed to a barrel. The owner or operator shall install and maintain a duct work to discharge exhaust from the vertical cooler cyclone (MAC HE 52) into the duct connected to the RTO. [District Rules 2201 and 4102]
14. The owner or operator shall operate and maintain three identical Durr Systems, Inc.'s Ecopure RL-60 regenerative thermal oxidizers (RTO) each equipped with 7.7 MMBtu/hr burner, associated duct work and control equipment, to abate pet food odors and reduce VOC emissions from all pet food manufacturing lines discharge stacks (wet cyclone (Horizon HT-68), dryer cyclone (MAC HE60) and vertical cooler cyclone (MAC HE52)). [District Rules 2201 and 4102]
15. Each RTO shall be equipped with non-resettable fuel flow meter(s) to measure natural gas fuel flow into each RTO. [District Rule 2201]
16. Each RTO's combustion chamber temperature shall be maintained at or above 1650 degrees Fahrenheit whenever odor abatement is occurring in the specific RTO. [District Rule 2201]
17. Each RTO's chamber shall be permanently equipped with temperature measurement devices to determine the average combustion chamber temperature. The combustion temperature shall be continuously monitored and recorded at least every 15-minutes whenever odor abatement is occurring in the specific RTO. The recorded temperature data shall be averaged over a 30-consecutive-minute block to demonstrate compliance with the established RTO combustion chamber temperature. 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]
18. Visible emissions, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.) shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

19. The dryer and RTO(s) shall only be fired on PUC-quality natural gas. [District Rule 2201]
20. PM10 emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.0306 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
21. The post control VOC emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.005 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
22. No more than 36 tons of fresh meat, excluding moisture, shall be injected into the steam-conditioner in any one day. [District Rule 2201]
23. The amount of finished product produced under this line shall not exceed 780 tons in any one day. [District Rule 2201]
24. The combined amount of finished product produced through all pet food manufacturing lines (N-8234-4, '-5, and '-6) shall not exceed 780 tons in any one day. [District Rule 2201]
25. The combined amount of finished product produced through all pet food manufacturing lines (N-8234-4, '-5, '-6 and '-18) shall not exceed 1,040 tons in any one day. [District Rule 2080]
26. Emissions from the dryer shall not exceed any of the following limits: 2.1 ppmvd NO_x @ 19% O₂ (0.024 lb-NO_x/MMBtu), 16.5 ppmvd CO @ 19% O₂ (0.112 lb-CO/MMBtu) and 0.00285 lb-SO_x/MMBtu. [District Rules 2201 and 4309]
27. The RTO(s) shall reduce the VOC emissions (not including VOC emissions from natural gas combustion in the RTO) from pet food manufacturing operations by at least 95% (by weight). [District Rule 2201]
28. The total NO_x emissions from the three RTO unit system and four dryers combined shall not exceed any of the following limits: 8.343 lb/hr and 200.4 lb/day and 33,639 lb/yr (12-month rolling basis). Compliance with these mass emission rates shall be demonstrated using NO_x (ppmvd) and exhaust gas flow rate (Q, dry standard cubic feet per minute, dscfm) data recorded by the CERMS, according to the following equation: Emissions (lb/hr) = (NO_x ppmvd x 46 lb/lb-mol x 60 min/hr x Q (dscfm)) ÷ (379.5 dscf/lb-mol x 1000,000). Daily emissions for each RTO shall be calculated by summing the hourly emissions for the respective calendar day. Hourly or daily emissions data shall be used to calculate monthly emissions. Monthly data shall be used to calculate rolling 12-month totals. [District Rule 2201]
29. Emissions due to natural gas combustion in each RTO shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM10/MMBtu, 0.88 lb-CO/MMBtu and 0.0055 lb-VOC/MMBtu. [District Rule 2201]
30. Heat input rate to each RTO shall not exceed any of the following limits: 184.8 MMBtu/day and 67,082 MMBtu/year (12-month rolling total). [District Rule 2201]
31. Combined total heat input rate to all three RTOs shall not exceed 156,816 MMBtu/year (12-month rolling total). [District Rule 2201]
32. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ of the dryer (at the exhaust stack of the MAC HE60 cyclone, upstream of the duct collecting discharge from other process streams), at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]
33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4309]

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

34. If either the dryer NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309]
35. {3744} The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]
36. {33} Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
37. {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
38. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rules 2201 and 4309]
39. 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 2201 and 4309]
40. Source testing to determine NO_x and CO emissions from the dryer at the exhaust stack of the MAC HE60 cyclone by obtaining samples upstream of the duct collecting discharge from other process streams shall be conducted at least once every 24 months. [District Rule 4309]
41. All dryer test results for NO_x and CO shall be reported in ppmv @ 19% O₂ (or no correction if measured above 19% O₂), corrected to dry stack conditions. [District Rule 4309]
42. Source testing to measure steady state NO_x emissions at the exhaust of each RTO system shall be conducted within 180 days of initial startup under this permit and at least once every 24 months thereafter. All RTOs shall be operated and tested simultaneously while treating exhaust stream from the pet food manufacturing lines. Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
43. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 2201 and 4309]
44. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201 and 4309]
45. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201 and 4309]
46. Stack gas velocity or volumetric flow rate shall be determined using EPA Methods 2, 2A, or 2D. [District Rule 2201]
47. For VOC and PM₁₀ source testing, one RTO system inlet and outlet may be sampled to determine compliance with various emission limits (i.e., VOC and PM₁₀ emission limits) in this permit. The testing results may be substituted for the other RTO systems instead of sampling each RTO system. Failure to comply with any emission limit in this permit shall constitute violation of permits N-8234-4-'15-'6 and '-18. [District Rule 2201]

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

48. Source testing shall be conducted during an operating configuration representative of normal operations by selecting pet food recipe(s) that can be made continuously throughout the testing without any process interruptions or delays. Each pet food manufacturing line must be operated at or above 90% of the maximum hourly process rate of the chosen recipe. The pet food recipe chosen shall include at least 3% (by weight) of fresh meat. If multiple pet food lines are operated during the test, the operator must utilize the average production rate (tons of finished product produced) to demonstrate compliance with VOC and PM10 emission limits (pounds per ton of finished product produced). [District Rule 2201 and 4102]
49. Source testing to determine compliance with process VOC emission limit (0.005 lb/ton of finished product produced) and VOC control efficiency (95% by weight) of the RTO shall be conducted within 180 days of initial startup under this permit and at least once every twelve months thereafter. After demonstrating compliance on two consecutive annual source tests, 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]
50. Source testing to determine compliance with PM10 emission limit (0.0306 lb/ton of finished product produced) shall be conducted within 180 days of the initial startup under this permit. [District Rule 2201]
51. The process emissions shall be calculated as follows: $VOC (lb/hr) = VOC_{inlet} \text{ of the RTO } (lb/hr) - VOC_{outlet} \text{ of the RTO } (lb/hr)$. $VOC_{outlet} \text{ of the RTO } (lb/hr) = VOC_{measured} \text{ at the outlet of RTO } (lb/hr) - VOC_{natural} \text{ gas combustion in the RTO } (lb/hr)$. $PM10 (lb/hr) = PM10_{outlet} \text{ of the RTO } (lb/hr) - PM10_{natural} \text{ gas combustion in the RTO } (lb/hr)$. The resulting emissions shall be translated into lb/ton basis using the actual average hourly pet food production rate(s). Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
52. 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. In lieu of performing a source test for PM10, the results of the total particulate test (CARB Method 5) 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. Should the applicant decided to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 2201]
53. A presurvey must be done prior to source testing to determine VOC compound analytes present in the effluent streams from wet cyclone, dryer cyclone, and vertical cooler cyclone using the methodology described in EPA Method 18, Section 16. 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, or 308. 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 an appropriate compound, with the balance being scaled to the relative mole fraction of other the 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 be approved by the District. Upon approval from District's Compliance Division, data collected during previous presurveys of various effluent streams may be used to identify VOC compound analytes present in various effluent streams. [District Rule 2201]
54. The District may, at its discretion, require NO_x, CO, VOC and PM10 source testing and odor panel testing at any time should conditions at the facility surrounding areas warrants such testing. [District Rules 2201 and 4201]
55. During each source test, the owner or operator shall keep track of all parameters that are used in demonstrating compliance with the limits in this permit, including, but not limited to: (1) date, (2) identification of pet food lines that are operated, (3) name of each recipe being produced, (4) amount of fresh meat injection rate, excluding moisture, into the steam-conditioner, (5) actual processing rate of finished product produced, tons/hour, (6) maximum hourly processing rate, tons/hour, for each recipe being produced, (7) RTO chamber temperature data (degrees Fahrenheit), (8) actual amount of fuel combusted in the dryer(s), (9) actual amount of fuel combusted in the RTO, and (10) CERMS data. [District Rules 2201 and 4102]
56. {3721} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

57. The owner or operator shall certify, maintain, operate and quality-assure a Continuous Emission Rate Monitoring System (CERMS) which continuously measures and records the exhaust gas NO_x concentrations and exhaust flow rate, at the exhaust stack of each RTO system. CERMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CERMS passes the relative accuracy requirement specified herein during startups and shutdowns periods. If relative accuracy of CERMS cannot be demonstrated during startup or shutdown periods, CERMS results during startup and shutdown events shall be replaced with startup emission rates obtained during the previous NO_x source testing conducted on January 24, 2019. [District Rules 1080 and 2201]
58. The CERMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080 and 2201]
59. The CERMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 for CEMS and Part 60, Appendix B Performance Specification 6 (PS6), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080 and 2201]
60. In accordance with 40 CFR Part 60, Appendix F, NO_x monitor must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080 and 2201]
61. The owner/operator shall perform a RATA for NO_x (as specified in 40 CFR Part 60, Appendix F) and flow rate sensor at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CERMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F for CEMS equipment. [District Rules 1080 and 2201]
62. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080 and 2201]
63. The CERMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080 and 2201]
64. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CERMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]
65. The facility shall maintain equipment, facilities, and systems compatible with the District's CERMS data polling software system and shall make CERMS data available to the District's automated polling system on a daily basis. [District Rule 1080]
66. Upon notice by the District that the facility's CERMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CERMS data is sent to the District by a District-approved alternative method. [District Rule 1080]
67. The permittee shall maintain the following records for CERMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CERMS was inoperative. [District Rule 1080]

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

68. The owner or operator shall maintain records of NO_x emissions and submit a written report each calendar quarter to the District containing the following information for each operating day: (1) Calendar date; (2) The average hourly NO_x emission rate (expressed as NO₂, lb/hr) measured at the exhaust of each RTO; (3) The total average hourly NO_x emission rate (expressed as NO₂, lb/hr) for all three RTOs using average hourly NO_x emission rate at the exhaust of each RTO (item 2); (4) The total daily NO_x emission rates (lb/day) calculated at the end of each operating day from the measured total average hourly NO_x emission rates; (5) The total monthly NO_x emission rate (lb/month) calculated at the end of each month using total daily NO_x emissions rate; (6) The total annual NO_x emission rate (lb/year, on a rolling 12-month basis) calculated at the end of each month using total monthly NO_x emission rate; (7) Identification of the operating days when the calculated total hourly average NO_x emission rates are in excess of the permitted NO_x emissions, with the reasons for such excess emissions as well as a description of corrective actions taken; (8) Identification of the operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (9) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding such data; (10) Identification of each parameter used in calculations; (11) Identification of the times when the pollutant concentration exceeded full span of the CERMS; (12) Description of any modifications to the CERMS that could affect the ability of the CERMS to comply with Performance Specification 6; (13) Results of daily CERMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (14) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080 and 2201]
69. The owner or operator may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 2201]
70. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]
71. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081]
72. The owner or operator shall notify the District of any breakdown condition (as defined in section 3.1 of District Rule 1100) as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
73. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

74. The owner or operator shall maintain daily records of the following items: (1) date, (2) name of the pet food recipe being produced, (3) RTO temperature monitoring data, (4) fresh meat injection rate, excluding moisture, into the steam conditioner (tons/day), (5) the combined amount of finished product produced by pet food manufacturing lines (N-8234-4, '-5, and '-6, tons/day), (6) amount of finished product produced by this line (tons/day); the combined amount of finished product produced by all pet food manufacturing lines (N-8234-4, '-5, and '-6 , tons/day) may be used to demonstrate compliance with the amount of finished product produced by this line (tons/day), (7) the combined amount of finished product produced by all pet food manufacturing lines (N-8234-4, '-5, '-6 and '-18, tons/day), (8) heat input rate to each RTO, in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period, (9) combined total heat input rate to all three RTOs in MMBtu/year on a rolling 12 consecutive month period, (10) combined process and combustion NOx emissions at the exhaust of each RTO (including the contribution of dryer NOx emissions) in lb/day and lb/year on a rolling 12 consecutive month period, and (11) combined process and combustion NOx emissions at the exhaust of all three RTOs (including the contribution of NOx emissions from dryers) in lb/year on a rolling 12 consecutive month period. [District Rule 2201]
75. Each RTO system (i.e., RTO, duct work, sensors, and other equipment) shall be operated, and maintained per the manufacturer's (vendor) recommendations. A copy of manufacturer's recommendations shall be kept on site at all times. [District Rule 2201]
76. The owner or operator shall maintain all records of maintenance for each RTO system including date, RTO identification, reason for the maintenance, description of the maintenance activity, name of the individual performing the inspection and company affiliation. [District Rules 2201 and 4102]
77. All records shall be maintained and retained on-site for minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 2201 and 4309]

DRAFT

*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: N-8234-5-13

LEGAL OWNER OR OPERATOR: DIAMOND PET FOODS - RIPON

MAILING ADDRESS: 942 S STOCKTON AVE
RIPON, CA 95366

LOCATION: 942 S STOCKTON AVE
RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD PROCESSING LINE #2: CLARIFY TOTAL NUMBER OF DRYERS AND TOTAL PET FOOD PRODUCTION FOR THE ENTIRE PLANT

CONDITIONS

1. Authority to Construct N-8234-5-12 shall be implemented prior to, or concurrently with the implementation of this Authority to Construct permit. [District Rule 2201]
2. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Upon commencing the operation of pet food manufacturing line under permit N-8234-18, the operator shall investigate and address each confirmed odor complaint according to the procedure outlined in the latest 'ODOR MANAGEMENT PLAN' (March 2021 or later version). The operator shall keep all records including but not limited to the date of odor complaint, time when the operator initiated the response, and any corrective actions taken to alleviate the odor complaint. [District Rule 4102]
4. Particulate matter, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. All exhaust stacks under this permit shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
6. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

N-8234-5-13 : Jul 8 2022 8:46AM -- KAHLONJ : Joint Inspection NOT Required

7. Material Dispensing, Kibble Manufacturing, and Conveying Systems: The material from the extruder surge bin is dispensed into an extruder bin from where the material is transferred into an EXTRU-TECH 24X144 steam-conditioner system. The material is extruded to form kibbles. The kibbles are pneumatically conveyed using HEPA filtered air into a dryer receiving chamber using HORIZON SYSTEMS HT-68 high volume cyclone. The owner or operator shall install and maintain a duct work to discharge exhaust from the wet cyclone (Horizon HT-68) into the duct connected to the RTO. [District Rules 2201 and 4201]
8. Dryer System: The system consists of an EXTRU-TECH 1053-2P-AF11, 10 MMBtu/hr (total) direct-fired natural gas fired dryer with five drying sections, each section is equipped with an ECLIPSE WINNOX WX0200 burner with a maximum heat input rate of 2.0 MMBtu/hr. The dryer exhaust is vented to a MAC HE60 high efficiency cyclone. The owner or operator shall install and maintain a duct work to discharge exhaust from the dryer cyclone (MAC HE60) into the duct connected to the RTO. [District Rules 2201 and 4102]
9. Cooler and Conveying System: The system consists of three cooler sections, all vented to a MAC high efficiency cyclone, a discharge conveyor for the transfer of dried kibbles into a hopper. The material from the hopper is pneumatically conveyed to an enclosed shaker screener. The owner or operator shall install and maintain a duct work to re-circulate the exhaust from the dryer cooler cyclone (MAC) into the Dryer System. [District Rules 2201 and 4102]
10. Fines Collection and Conveying System: This system collects fines from two locations in the dryer, the dryer cyclone discharge, and the cooler cyclone discharge, and vents these fines to a HORIZON SYSTEMS 28S WRDL8 baghouse. This baghouse is vented indoors. [District Rule 2201]
11. Screening and Conveying System. The system consists of an enclosed shaker screener, an enclosed surge bin, and an enclosed weigh belt. The fines (rejects) are dropped to the dumpsters. [District Rule 2201]
12. Coating and Conveying System: The system consists of a hopper where material from a weight belt is sprayed with chicken fat and canola oil (or other similar ingredients) and a coating reel where dry dog/cat digest and probiotics (or other similar ingredients) are sprinkled to be absorbed into the kibbles. The kibbles are then conveyed pneumatically to a vertical cooler system using a filter receiver system with a static sock filter. [District Rule 2201]
13. Vertical Cooler and Conveying System: A vertical cooler vented to a MAC HE52 high efficiency cyclone. The dried material falls on a vibratory pan on sliding rails. The material (accepts) from the vibratory pan drops into a hopper from where the dried kibbles are pneumatically conveyed to the finished product bins. Each bin shall be vented to a static sock filter. The fines (rejects) from MAC HE52 cyclone discharge and vibratory pan are conveyed to a barrel. The owner or operator shall install and maintain a duct work to discharge exhaust from the vertical cooler cyclone (MAC HE 52) into the duct connected to the RTO. [District Rules 2201 and 4102]
14. The owner or operator shall operate and maintain three identical Durr Systems, Inc.'s Ecopure RL-60 regenerative thermal oxidizers (RTO) each equipped with 7.7 MMBtu/hr burner, associated duct work and control equipment, to abate pet food odors and reduce VOC emissions from all pet food manufacturing lines discharge stacks (wet cyclone (Horizon HT-68), dryer cyclone (MAC HE60) and vertical cooler cyclone (MAC HE52)). [District Rules 2201 and 4102]
15. Each RTO shall be equipped with non-resettable fuel flow meter(s) to measure natural gas fuel flow into each RTO. [District Rule 2201]
16. Each RTO's combustion chamber temperature shall be maintained at or above 1650 degrees Fahrenheit whenever odor abatement is occurring in the specific RTO. [District Rule 2201]
17. Each RTO's chamber shall be permanently equipped with temperature measurement devices to determine the average combustion chamber temperature. The combustion temperature shall be continuously monitored and recorded at least every 15-minutes whenever odor abatement is occurring in the specific RTO. The recorded temperature data shall be averaged over a 30-consecutive-minute block to demonstrate compliance with the established RTO combustion chamber temperature. 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]
18. Visible emissions, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.) shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

19. The dryer and RTO(s) shall only be fired on PUC-quality natural gas. [District Rule 2201]
20. PM10 emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.0306 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
21. The post control VOC emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.005 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
22. No more than 36 tons of fresh meat, excluding moisture, shall be injected into the steam-conditioner in any one day. [District Rule 2201]
23. The amount of finished product produced under this line shall not exceed 780 tons in any one day. [District Rule 2201]
24. The combined amount of finished product produced through all pet food manufacturing lines (N-8234-4, '-5, and '-6) shall not exceed 780 tons in any one day. [District Rule 2201]
25. The combined amount of finished product produced through all pet food manufacturing lines (N-8234-4, '-5, '-6 and '-18) shall not exceed 1,040 tons in any one day. [District Rule 2080]
26. Emissions from the dryer shall not exceed any of the following limits: 2.1 ppmvd NO_x @ 19% O₂ (0.024 lb-NO_x/MMBtu), 16.5 ppmvd CO @ 19% O₂ (0.112 lb-CO/MMBtu) and 0.00285 lb-SO_x/MMBtu. [District Rules 2201 and 4309]
27. The RTO(s) shall reduce the VOC emissions (not including VOC emissions from natural gas combustion in the RTO) from pet food manufacturing operations by at least 95% (by weight). [District Rule 2201]
28. The total NO_x emissions from the three RTO unit system and four dryers combined shall not exceed any of the following limits: 8.343 lb/hr and 200.4 lb/day and 33,639 lb/yr (12-month rolling basis). Compliance with these mass emission rates shall be demonstrated using NO_x (ppmvd) and exhaust gas flow rate (Q, dry standard cubic feet per minute, dscfm) data recorded by the CERMS, according to the following equation: Emissions (lb/hr) = (NO_x ppmvd x 46 lb/lb-mol x 60 min/hr x Q (dscfm)) ÷ (379.5 dscf/lb-mol x 1000,000). Daily emissions for each RTO shall be calculated by summing the hourly emissions for the respective calendar day. Hourly or daily emissions data shall be used to calculate monthly emissions. Monthly data shall be used to calculate rolling 12-month totals. [District Rule 2201]
29. Emissions due to natural gas combustion in each RTO shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM10/MMBtu, 0.88 lb-CO/MMBtu and 0.0055 lb-VOC/MMBtu. [District Rule 2201]
30. Heat input rate to each RTO shall not exceed any of the following limits: 184.8 MMBtu/day and 67,082 MMBtu/year (12-month rolling total). [District Rule 2201]
31. Combined total heat input rate to all three RTOs shall not exceed 156,816 MMBtu/year (12-month rolling total). [District Rule 2201]
32. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ of the dryer (at the exhaust stack of the MAC HE60 cyclone, upstream of the duct collecting discharge from other process streams), at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]
33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4309]

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

34. If either the dryer NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309]
35. {3744} The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]
36. {33} Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
37. {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
38. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rules 2201 and 4309]
39. 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 2201 and 4309]
40. Source testing to determine NO_x and CO emissions from the dryer at the exhaust stack of the MAC HE60 cyclone by obtaining samples upstream of the duct collecting discharge from other process streams shall be conducted at least once every 24 months. [District Rule 4309]
41. All dryer test results for NO_x and CO shall be reported in ppmv @ 19% O₂ (or no correction if measured above 19% O₂), corrected to dry stack conditions. [District Rule 4309]
42. Source testing to measure steady state NO_x emissions at the exhaust of each RTO system shall be conducted within 180 days of initial startup under this permit and at least once every 24 months thereafter. All RTOs shall be operated and tested simultaneously while treating exhaust stream from the pet food manufacturing lines. Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
43. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 2201 and 4309]
44. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201 and 4309]
45. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201 and 4309]
46. Stack gas velocity or volumetric flow rate shall be determined using EPA Methods 2, 2A, or 2D. [District Rule 2201]
47. For VOC and PM₁₀ source testing, one RTO system inlet and outlet may be sampled to determine compliance with various emission limits (i.e., VOC and PM₁₀ emission limits) in this permit. The testing results may be substituted for the other RTO systems instead of sampling each RTO system. Failure to comply with any emission limit in this permit shall constitute violation of permits N-8234-4, -5, -6 and -18. [District Rule 2201]

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

48. Source testing shall be conducted during an operating configuration representative of normal operations by selecting pet food recipe(s) that can be made continuously throughout the testing without any process interruptions or delays. Each pet food manufacturing line must be operated at or above 90% of the maximum hourly process rate of the chosen recipe. The pet food recipe chosen shall include at least 3% (by weight) of fresh meat. If multiple pet food lines are operated during the test, the operator must utilize the average production rate (tons of finished product produced) to demonstrate compliance with VOC and PM10 emission limits (pounds per ton of finished product produced). [District Rule 2201 and 4102]
49. Source testing to determine compliance with process VOC emission limit (0.005 lb/ton of finished product produced) and VOC control efficiency (95% by weight) of the RTO shall be conducted within 180 days of initial startup under this permit and at least once every twelve months thereafter. After demonstrating compliance on two consecutive annual source tests, 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]
50. Source testing to determine compliance with PM10 emission limit (0.0306 lb/ton of finished product produced) shall be conducted within 180 days of the initial startup under this permit. [District Rule 2201]
51. The process emissions shall be calculated as follows: $VOC (lb/hr) = VOC_{inlet} \text{ of the RTO } (lb/hr) - VOC_{outlet} \text{ of the RTO } (lb/hr)$. $VOC_{outlet} \text{ of the RTO } (lb/hr) = VOC_{measured} \text{ at the outlet of RTO } (lb/hr) - VOC_{natural} \text{ gas combustion in the RTO } (lb/hr)$. $PM10 (lb/hr) = PM10_{outlet} \text{ of the RTO } (lb/hr) - PM10_{natural} \text{ gas combustion in the RTO } (lb/hr)$. The resulting emissions shall be translated into lb/ton basis using the actual average hourly pet food production rate(s). Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
52. 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. In lieu of performing a source test for PM10, the results of the total particulate test (CARB Method 5) 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. Should the applicant decided to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 2201]
53. A presurvey must be done prior to source testing to determine VOC compound analytes present in the effluent streams from wet cyclone, dryer cyclone, and vertical cooler cyclone using the methodology described in EPA Method 18, Section 16. 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, or 308. 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 an appropriate compound, with the balance being scaled to the relative mole fraction of other the 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 be approved by the District. Upon approval from District's Compliance Division, data collected during previous presurveys of various effluent streams may be used to identify VOC compound analytes present in various effluent streams. [District Rule 2201]
54. The District may, at its discretion, require NO_x, CO, VOC and PM10 source testing and odor panel testing at any time should conditions at the facility surrounding areas warrants such testing. [District Rules 2201 and 4201]
55. During each source test, the owner or operator shall keep track of all parameters that are used in demonstrating compliance with the limits in this permit, including, but not limited to: (1) date, (2) identification of pet food lines that are operated, (3) name of each recipe being produced, (4) amount of fresh meat injection rate, excluding moisture, into the steam-conditioner, (5) actual processing rate of finished product produced, tons/hour, (6) maximum hourly processing rate, tons/hour, for each recipe being produced, (7) RTO chamber temperature data (degrees Fahrenheit), (8) actual amount of fuel combusted in the dryer(s), (9) actual amount of fuel combusted in the RTO, and (10) CERMS data. [District Rules 2201 and 4102]
56. {3721} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

57. The owner or operator shall certify, maintain, operate and quality-assure a Continuous Emission Rate Monitoring System (CERMS) which continuously measures and records the exhaust gas NO_x concentrations and exhaust flow rate, at the exhaust stack of each RTO system. CERMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CERMS passes the relative accuracy requirement specified herein during startups and shutdowns periods. If relative accuracy of CERMS cannot be demonstrated during startup or shutdown periods, CERMS results during startup and shutdown events shall be replaced with startup emission rates obtained during the previous NO_x source testing conducted on January 24, 2019. [District Rules 1080 and 2201]
58. The CERMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080 and 2201]
59. The CERMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 for CEMS and Part 60, Appendix B Performance Specification 6 (PS6), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080 and 2201]
60. In accordance with 40 CFR Part 60, Appendix F, NO_x monitor must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080 and 2201]
61. The owner/operator shall perform a RATA for NO_x (as specified in 40 CFR Part 60, Appendix F) and flow rate sensor at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CERMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F for CEMS equipment. [District Rules 1080 and 2201]
62. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080 and 2201]
63. The CERMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080 and 2201]
64. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CERMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]
65. The facility shall maintain equipment, facilities, and systems compatible with the District's CERMS data polling software system and shall make CERMS data available to the District's automated polling system on a daily basis. [District Rule 1080]
66. Upon notice by the District that the facility's CERMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CERMS data is sent to the District by a District-approved alternative method. [District Rule 1080]
67. The permittee shall maintain the following records for CERMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CERMS was inoperative. [District Rule 1080]

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

68. The owner or operator shall maintain records of NO_x emissions and submit a written report each calendar quarter to the District containing the following information for each operating day: (1) Calendar date; (2) The average hourly NO_x emission rate (expressed as NO₂, lb/hr) measured at the exhaust of each RTO; (3) The total average hourly NO_x emission rate (expressed as NO₂, lb/hr) for all three RTOs using average hourly NO_x emission rate at the exhaust of each RTO (item 2); (4) The total daily NO_x emission rates (lb/day) calculated at the end of each operating day from the measured total average hourly NO_x emission rates; (5) The total monthly NO_x emission rate (lb/month) calculated at the end of each month using total daily NO_x emissions rate; (6) The total annual NO_x emission rate (lb/year, on a rolling 12-month basis) calculated at the end of each month using total monthly NO_x emission rate; (7) Identification of the operating days when the calculated total hourly average NO_x emission rates are in excess of the permitted NO_x emissions, with the reasons for such excess emissions as well as a description of corrective actions taken; (8) Identification of the operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (9) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding such data; (10) Identification of each parameter used in calculations; (11) Identification of the times when the pollutant concentration exceeded full span of the CERMS; (12) Description of any modifications to the CERMS that could affect the ability of the CERMS to comply with Performance Specification 6; (13) Results of daily CERMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (14) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080 and 2201]
69. The owner or operator may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 2201]
70. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]
71. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081]
72. The owner or operator shall notify the District of any breakdown condition (as defined in section 3.1 of District Rule 1100) as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
73. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

74. The owner or operator shall maintain daily records of the following items: (1) date, (2) name of the pet food recipe being produced, (3) RTO temperature monitoring data, (4) fresh meat injection rate, excluding moisture, into the steam conditioner (tons/day), (5) the combined amount of finished product produced by pet food manufacturing lines (N-8234-4, '-5, and '-6, tons/day), (6) amount of finished product produced by this line (tons/day); the combined amount of finished product produced by all pet food manufacturing lines (N-8234-4, '-5, and '-6 , tons/day) may be used to demonstrate compliance with the amount of finished product produced by this line (tons/day), (7) the combined amount of finished product produced by all pet food manufacturing lines (N-8234-4, '-5, '-6 and '-18, tons/day), (8) heat input rate to each RTO, in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period, (9) combined total heat input rate to all three RTOs in MMBtu/year on a rolling 12 consecutive month period, (10) combined process and combustion NOx emissions at the exhaust of each RTO (including the contribution of dryer NOx emissions) in lb/day and lb/year on a rolling 12 consecutive month period, and (11) combined process and combustion NOx emissions at the exhaust of all three RTOs (including the contribution of NOx emissions from dryers) in lb/year on a rolling 12 consecutive month period. [District Rule 2201]
75. Each RTO system (i.e., RTO, duct work, sensors, and other equipment) shall be operated, and maintained per the manufacturer's (vendor) recommendations. A copy of manufacturer's recommendations shall be kept on site at all times. [District Rule 2201]
76. The owner or operator shall maintain all records of maintenance for each RTO system including date, RTO identification, reason for the maintenance, description of the maintenance activity, name of the individual performing the inspection and company affiliation. [District Rules 2201 and 4102]
77. All records shall be maintained and retained on-site for minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 2201 and 4309]

DRAFT

*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: N-8234-6-13

LEGAL OWNER OR OPERATOR: DIAMOND PET FOODS - RIPON

MAILING ADDRESS: 942 S STOCKTON AVE
RIPON, CA 95366

LOCATION: 942 S STOCKTON AVE
RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD PROCESSING LINE #3: CLARIFY TOTAL NUMBER OF DRYERS AND TOTAL PET FOOD PRODUCTION FOR THE ENTIRE PLANT

CONDITIONS

1. Authority to Construct N-8234-6-12 shall be implemented prior to, or concurrently with the implementation of this Authority to Construct permit. [District Rule 2201]
2. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Upon commencing the operation of pet food manufacturing line under permit N-8234-18, the operator shall investigate and address each confirmed odor complaint according to the procedure outlined in the latest 'ODOR MANAGEMENT PLAN' (March 2021 or later version). The operator shall keep all records including but not limited to the date of odor complaint, time when the operator initiated the response, and any corrective actions taken to alleviate the odor complaint. [District Rule 4102]
4. Particulate matter, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. All exhaust stacks under this permit shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
6. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

N-8234-6-13 : Jul 8 2022 8:46AM -- KAHLONJ : Joint Inspection NOT Required

7. Material Dispensing, Kibble Manufacturing, and Conveying Systems: The material from the extruder surge bin is dispensed into an extruder bin from where the material is transferred into an EXTRU-TECH 24X144 steam-conditioner system. The material is extruded to form kibbles. The kibbles are pneumatically conveyed using HEPA filtered air into a dryer receiving chamber using HORIZON SYSTEMS HT-68 high volume cyclone. The owner or operator shall install and maintain a duct work to discharge exhaust from the wet cyclone (Horizon HT-68) into the duct connected to the RTO. [District Rules 2201 and 4201]
8. Dryer System: The system consists of an EXTRU-TECH 1053-2P-AF11, 10 MMBtu/hr (total) direct-fired natural gas fired dryer with five drying sections, each section is equipped with an ECLIPSE WINNOX WX0200 burner with a maximum heat input rate of 2.0 MMBtu/hr. The dryer exhaust is vented to a MAC HE60 high efficiency cyclone. The owner or operator shall install and maintain a duct work to discharge exhaust from the dryer cyclone (MAC HE60) into the duct connected to the RTO. [District Rules 2201 and 4102]
9. Cooler and Conveying System: The system consists of three cooler sections, all vented to a MAC high efficiency cyclone, a discharge conveyor for the transfer of dried kibbles into a hopper. The material from the hopper is pneumatically conveyed to an enclosed shaker screener. The owner or operator shall install and maintain a duct work to re-circulate the exhaust from the dryer cooler cyclone (MAC) into the Dryer System. [District Rules 2201 and 4102]
10. Fines Collection and Conveying System: This system collects fines from two locations in the dryer, the dryer cyclone discharge, and the cooler cyclone discharge, and vents these fines to a HORIZON SYSTEMS 28S WRDL8 baghouse. This baghouse is vented indoors. [District Rule 2201]
11. Screening and Conveying System. The system consists of an enclosed shaker screener, an enclosed surge bin, and an enclosed weigh belt. The fines (rejects) are dropped to the dumpsters. [District Rule 2201]
12. Coating and Conveying System: The system consists of a hopper where material from a weight belt is sprayed with chicken fat and canola oil (or other similar ingredients) and a coating reel where dry dog/cat digest and probiotics (or other similar ingredients) are sprinkled to be absorbed into the kibbles. The kibbles are then conveyed pneumatically to a vertical cooler system using a filter receiver system with a static sock filter. [District Rule 2201]
13. Vertical Cooler and Conveying System: A vertical cooler vented to a MAC HE52 high efficiency cyclone. The dried material falls on a vibratory pan on sliding rails. The material (accepts) from the vibratory pan drops into a hopper from where the dried kibbles are pneumatically conveyed to the finished product bins. Each bin shall be vented to a static sock filter. The fines (rejects) from MAC HE52 cyclone discharge and vibratory pan are conveyed to a barrel. The owner or operator shall install and maintain a duct work to discharge exhaust from the vertical cooler cyclone (MAC HE 52) into the duct connected to the RTO. [District Rules 2201 and 4102]
14. The owner or operator shall operate and maintain three identical Durr Systems, Inc.'s Ecopure RL-60 regenerative thermal oxidizers (RTO) each equipped with 7.7 MMBtu/hr burner, associated duct work and control equipment, to abate pet food odors and reduce VOC emissions from all pet food manufacturing lines discharge stacks (wet cyclone (Horizon HT-68), dryer cyclone (MAC HE60) and vertical cooler cyclone (MAC HE52)). [District Rules 2201 and 4102]
15. Each RTO shall be equipped with non-resettable fuel flow meter(s) to measure natural gas fuel flow into each RTO. [District Rule 2201]
16. Each RTO's combustion chamber temperature shall be maintained at or above 1650 degrees Fahrenheit whenever odor abatement is occurring in the specific RTO. [District Rule 2201]
17. Each RTO's chamber shall be permanently equipped with temperature measurement devices to determine the average combustion chamber temperature. The combustion temperature shall be continuously monitored and recorded at least every 15-minutes whenever odor abatement is occurring in the specific RTO. The recorded temperature data shall be averaged over a 30-consecutive-minute block to demonstrate compliance with the established RTO combustion chamber temperature. 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]
18. Visible emissions, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.) shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

19. The dryer and RTO(s) shall only be fired on PUC-quality natural gas. [District Rule 2201]
20. PM10 emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.0306 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
21. The post control VOC emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.005 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
22. No more than 36 tons of fresh meat, excluding moisture, shall be injected into the steam-conditioner in any one day. [District Rule 2201]
23. The amount of finished product produced under this line shall not exceed 780 tons in any one day. [District Rule 2201]
24. The combined amount of finished product produced through all pet food manufacturing lines (N-8234-4, '-5, and '-6) shall not exceed 780 tons in any one day. [District Rule 2201]
25. The combined amount of finished product produced through all pet food manufacturing lines (N-8234-4, '-5, '-6 and '-18) shall not exceed 1,040 tons in any one day. [District Rule 2080]
26. Emissions from the dryer shall not exceed any of the following limits: 2.1 ppmvd NO_x @ 19% O₂ (0.024 lb-NO_x/MMBtu), 16.5 ppmvd CO @ 19% O₂ (0.112 lb-CO/MMBtu) and 0.00285 lb-SO_x/MMBtu. [District Rules 2201 and 4309]
27. The RTO(s) shall reduce the VOC emissions (not including VOC emissions from natural gas combustion in the RTO) from pet food manufacturing operations by at least 95% (by weight). [District Rule 2201]
28. The total NO_x emissions from the three RTO unit system and four dryers combined shall not exceed any of the following limits: 8.343 lb/hr and 200.4 lb/day and 33,639 lb/yr (12-month rolling basis). Compliance with these mass emission rates shall be demonstrated using NO_x (ppmvd) and exhaust gas flow rate (Q, dry standard cubic feet per minute, dscfm) data recorded by the CERMS, according to the following equation: Emissions (lb/hr) = (NO_x ppmvd x 46 lb/lb-mol x 60 min/hr x Q (dscfm)) ÷ (379.5 dscf/lb-mol x 1000,000). Daily emissions for each RTO shall be calculated by summing the hourly emissions for the respective calendar day. Hourly or daily emissions data shall be used to calculate monthly emissions. Monthly data shall be used to calculate rolling 12-month totals. [District Rule 2201]
29. Emissions due to natural gas combustion in each RTO shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM10/MMBtu, 0.88 lb-CO/MMBtu and 0.0055 lb-VOC/MMBtu. [District Rule 2201]
30. Heat input rate to each RTO shall not exceed any of the following limits: 184.8 MMBtu/day and 67,082 MMBtu/year (12-month rolling total). [District Rule 2201]
31. Combined total heat input rate to all three RTOs shall not exceed 156,816 MMBtu/year (12-month rolling total). [District Rule 2201]
32. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ of the dryer (at the exhaust stack of the MAC HE60 cyclone, upstream of the duct collecting discharge from other process streams), at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]
33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4309]

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

34. If either the dryer NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309]
35. {3744} The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]
36. {33} Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
37. {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
38. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rules 2201 and 4309]
39. 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 2201 and 4309]
40. Source testing to determine NO_x and CO emissions from the dryer at the exhaust stack of the MAC HE60 cyclone by obtaining samples upstream of the duct collecting discharge from other process streams shall be conducted at least once every 24 months. [District Rule 4309]
41. All dryer test results for NO_x and CO shall be reported in ppmv @ 19% O₂ (or no correction if measured above 19% O₂), corrected to dry stack conditions. [District Rule 4309]
42. Source testing to measure steady state NO_x emissions at the exhaust of each RTO system shall be conducted within 180 days of initial startup under this permit and at least once every 24 months thereafter. All RTOs shall be operated and tested simultaneously while treating exhaust stream from the pet food manufacturing lines. Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
43. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 2201 and 4309]
44. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201 and 4309]
45. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201 and 4309]
46. Stack gas velocity or volumetric flow rate shall be determined using EPA Methods 2, 2A, or 2D. [District Rule 2201]
47. For VOC and PM₁₀ source testing, one RTO system inlet and outlet may be sampled to determine compliance with various emission limits (i.e., VOC and PM₁₀ emission limits) in this permit. The testing results may be substituted for the other RTO systems instead of sampling each RTO system. Failure to comply with any emission limit in this permit shall constitute violation of permits N-8234-4, -5, -6 and -18. [District Rule 2201]

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

48. Source testing shall be conducted during an operating configuration representative of normal operations by selecting pet food recipe(s) that can be made continuously throughout the testing without any process interruptions or delays. Each pet food manufacturing line must be operated at or above 90% of the maximum hourly process rate of the chosen recipe. The pet food recipe chosen shall include at least 3% (by weight) of fresh meat. If multiple pet food lines are operated during the test, the operator must utilize the average production rate (tons of finished product produced) to demonstrate compliance with VOC and PM10 emission limits (pounds per ton of finished product produced). [District Rule 2201 and 4102]
49. Source testing to determine compliance with process VOC emission limit (0.005 lb/ton of finished product produced) and VOC control efficiency (95% by weight) of the RTO shall be conducted within 180 days of initial startup under this permit and at least once every twelve months thereafter. After demonstrating compliance on two consecutive annual source tests, 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]
50. Source testing to determine compliance with PM10 emission limit (0.0306 lb/ton of finished product produced) shall be conducted within 180 days of the initial startup under this permit. [District Rule 2201]
51. The process emissions shall be calculated as follows: $VOC (lb/hr) = VOC_{inlet} \text{ of the RTO } (lb/hr) - VOC_{outlet} \text{ of the RTO } (lb/hr)$. $VOC_{outlet} \text{ of the RTO } (lb/hr) = VOC_{measured} \text{ at the outlet of RTO } (lb/hr) - VOC_{natural} \text{ gas combustion in the RTO } (lb/hr)$. $PM10 (lb/hr) = PM10_{outlet} \text{ of the RTO } (lb/hr) - PM10_{natural} \text{ gas combustion in the RTO } (lb/hr)$. The resulting emissions shall be translated into lb/ton basis using the actual average hourly pet food production rate(s). Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
52. 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. In lieu of performing a source test for PM10, the results of the total particulate test (CARB Method 5) 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. Should the applicant decided to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 2201]
53. A presurvey must be done prior to source testing to determine VOC compound analytes present in the effluent streams from wet cyclone, dryer cyclone, and vertical cooler cyclone using the methodology described in EPA Method 18, Section 16. 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, or 308. 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 an appropriate compound, with the balance being scaled to the relative mole fraction of other the 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 be approved by the District. Upon approval from District's Compliance Division, data collected during previous presurveys of various effluent streams may be used to identify VOC compound analytes present in various effluent streams. [District Rule 2201]
54. The District may, at its discretion, require NO_x, CO, VOC and PM10 source testing and odor panel testing at any time should conditions at the facility surrounding areas warrants such testing. [District Rules 2201 and 4201]
55. During each source test, the owner or operator shall keep track of all parameters that are used in demonstrating compliance with the limits in this permit, including, but not limited to: (1) date, (2) identification of pet food lines that are operated, (3) name of each recipe being produced, (4) amount of fresh meat injection rate, excluding moisture, into the steam-conditioner, (5) actual processing rate of finished product produced, tons/hour, (6) maximum hourly processing rate, tons/hour, for each recipe being produced, (7) RTO chamber temperature data (degrees Fahrenheit), (8) actual amount of fuel combusted in the dryer(s), (9) actual amount of fuel combusted in the RTO, and (10) CERMS data. [District Rules 2201 and 4102]
56. {3721} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

57. The owner or operator shall certify, maintain, operate and quality-assure a Continuous Emission Rate Monitoring System (CERMS) which continuously measures and records the exhaust gas NO_x concentrations and exhaust flow rate, at the exhaust stack of each RTO system. CERMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CERMS passes the relative accuracy requirement specified herein during startups and shutdowns periods. If relative accuracy of CERMS cannot be demonstrated during startup or shutdown periods, CERMS results during startup and shutdown events shall be replaced with startup emission rates obtained during the previous NO_x source testing conducted on January 24, 2019. [District Rules 1080 and 2201]
58. The CERMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080 and 2201]
59. The CERMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 for CEMS and Part 60, Appendix B Performance Specification 6 (PS6), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080 and 2201]
60. In accordance with 40 CFR Part 60, Appendix F, NO_x monitor must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080 and 2201]
61. The owner/operator shall perform a RATA for NO_x (as specified in 40 CFR Part 60, Appendix F) and flow rate sensor at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CERMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F for CEMS equipment. [District Rules 1080 and 2201]
62. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080 and 2201]
63. The CERMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080 and 2201]
64. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CERMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]
65. The facility shall maintain equipment, facilities, and systems compatible with the District's CERMS data polling software system and shall make CERMS data available to the District's automated polling system on a daily basis. [District Rule 1080]
66. Upon notice by the District that the facility's CERMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CERMS data is sent to the District by a District-approved alternative method. [District Rule 1080]
67. The permittee shall maintain the following records for CERMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CERMS was inoperative. [District Rule 1080]

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

68. The owner or operator shall maintain records of NO_x emissions and submit a written report each calendar quarter to the District containing the following information for each operating day: (1) Calendar date; (2) The average hourly NO_x emission rate (expressed as NO₂, lb/hr) measured at the exhaust of each RTO; (3) The total average hourly NO_x emission rate (expressed as NO₂, lb/hr) for all three RTOs using average hourly NO_x emission rate at the exhaust of each RTO (item 2); (4) The total daily NO_x emission rates (lb/day) calculated at the end of each operating day from the measured total average hourly NO_x emission rates; (5) The total monthly NO_x emission rate (lb/month) calculated at the end of each month using total daily NO_x emissions rate; (6) The total annual NO_x emission rate (lb/year, on a rolling 12-month basis) calculated at the end of each month using total monthly NO_x emission rate; (7) Identification of the operating days when the calculated total hourly average NO_x emission rates are in excess of the permitted NO_x emissions, with the reasons for such excess emissions as well as a description of corrective actions taken; (8) Identification of the operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (9) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding such data; (10) Identification of each parameter used in calculations; (11) Identification of the times when the pollutant concentration exceeded full span of the CERMS; (12) Description of any modifications to the CERMS that could affect the ability of the CERMS to comply with Performance Specification 6; (13) Results of daily CERMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (14) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080 and 2201]
69. The owner or operator may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 2201]
70. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]
71. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081]
72. The owner or operator shall notify the District of any breakdown condition (as defined in section 3.1 of District Rule 1100) as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
73. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

74. The owner or operator shall maintain daily records of the following items: (1) date, (2) name of the pet food recipe being produced, (3) RTO temperature monitoring data, (4) fresh meat injection rate, excluding moisture, into the steam conditioner (tons/day), (5) the combined amount of finished product produced by pet food manufacturing lines (N-8234-4, '-5, and '-6, tons/day), (6) amount of finished product produced by this line (tons/day); the combined amount of finished product produced by all pet food manufacturing lines (N-8234-4, '-5, and '-6 , tons/day) may be used to demonstrate compliance with the amount of finished product produced by this line (tons/day), (7) the combined amount of finished product produced by all pet food manufacturing lines (N-8234-4, '-5, '-6 and '-18, tons/day), (8) heat input rate to each RTO, in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period, (9) combined total heat input rate to all three RTOs in MMBtu/year on a rolling 12 consecutive month period, (10) combined process and combustion NOx emissions at the exhaust of each RTO (including the contribution of dryer NOx emissions) in lb/day and lb/year on a rolling 12 consecutive month period, and (11) combined process and combustion NOx emissions at the exhaust of all three RTOs (including the contribution of NOx emissions from dryers) in lb/year on a rolling 12 consecutive month period. [District Rule 2201]
75. Each RTO system (i.e., RTO, duct work, sensors, and other equipment) shall be operated, and maintained per the manufacturer's (vendor) recommendations. A copy of manufacturer's recommendations shall be kept on site at all times. [District Rule 2201]
76. The owner or operator shall maintain all records of maintenance for each RTO system including date, RTO identification, reason for the maintenance, description of the maintenance activity, name of the individual performing the inspection and company affiliation. [District Rules 2201 and 4102]
77. All records shall be maintained and retained on-site for minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 2201 and 4309]

DRAFT

*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: N-8234-18-0

LEGAL OWNER OR OPERATOR: DIAMOND PET FOODS - RIPON

MAILING ADDRESS: 942 S STOCKTON AVE
RIPON, CA 95366

LOCATION: 942 S STOCKTON AVE
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
PET FOOD PROCESSING LINE #4

CONDITIONS

1. Prior to operating equipment under Authority to Construct permit N-8234-18-0, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 3,150 lb, 2nd quarter - 3,150 lb, 3rd quarter - 3,150 lb, and 4th quarter - 3,150 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201]
2. ERC Certificate Number N-1580-2 (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]
3. NOx emissions associated with the dryer, process, and the RTOs under this line shall not exceed 8,400 pounds in any 12 consecutive month rolling-period. The owner or operator shall keep sufficient records to demonstrate compliance with emission limit. These records shall contain calculated NOx emission quantity as well as each process variable used in the respective calculations. [District Rule 2201]
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. Upon commencing the operation of pet food manufacturing line under permit N-8234-18, the operator shall investigate and address each confirmed odor complaint according to the procedure outlined in the latest 'ODOR MANAGEMENT PLAN' (March 2021 or later version). The operator shall keep all records including but not limited to the date of odor complaint, time when the operator initiated the response, and any corrective actions taken to alleviate the odor complaint. [District Rule 4102]

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

N-8234-18-0 : Jul 8 2022 8:46AM -- KAHLOJ : Joint Inspection NOT Required

6. Particulate matter, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
7. All exhaust stacks under this permit shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
8. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
9. Material Dispensing, Kibble Manufacturing, and Conveying Systems: The material from the extruder surge bin is dispensed into an extruder bin from where the material is transferred into an EXTRU-TECH 24X144 steam-conditioner system. The material is extruded to form kibbles. The kibbles are pneumatically conveyed using HEPA filtered air into a dryer receiving chamber using HORIZON SYSTEMS HT-68 high volume cyclone. The owner or operator shall install and maintain a duct work to discharge exhaust from the wet cyclone (Horizon HT-68) into the duct connected to the RTO. [District Rules 2201 and 4201]
10. Dryer System: The system consists of an EXTRU-TECH 1053-2P-AF11, 10 MMBtu/hr (total) direct-fired natural gas fired dryer with five drying sections, each section is equipped with an ECLIPSE WINNOX WX0200 burner with a maximum heat input rate of 2.0 MMBtu/hr. The dryer exhaust is vented to a MAC HE60 high efficiency cyclone. The owner or operator shall install and maintain a duct work to discharge exhaust from the dryer cyclone (MAC HE60) into the duct connected to the RTO. [District Rules 2201 and 4102]
11. Cooler and Conveying System: The system consists of three cooler sections, all vented to a MAC high efficiency cyclone, a discharge conveyor for the transfer of dried kibbles into a hopper. The material from the hopper is pneumatically conveyed to an enclosed shaker screener. The owner or operator shall install and maintain a duct work to re-circulate the exhaust from the dryer cooler cyclone (MAC) into the Dryer System. [District Rules 2201 and 4102]
12. Fines Collection and Conveying System: This system collects fines from two locations in the dryer, the dryer cyclone discharge, and the cooler cyclone discharge, and vents these fines to a HORIZON SYSTEMS 28S WRDL8 baghouse. This baghouse is vented indoors. [District Rule 2201]
13. Screening and Conveying System. The system consists of an enclosed shaker screener, an enclosed surge bin, and an enclosed weigh belt. The fines (rejects) are dropped to the dumpsters. [District Rule 2201]
14. Coating and Conveying System: The system consists of a hopper where material from a weight belt is sprayed with chicken fat and canola oil (or other similar ingredients) and a coating reel where dry dog/cat digest and probiotics (or other similar ingredients) are sprinkled to be absorbed into the kibbles. The kibbles are then conveyed pneumatically to a vertical cooler system using a filter receiver system with a static sock filter. [District Rule 2201]
15. Vertical Cooler and Conveying System: A vertical cooler vented to a MAC HE52 high efficiency cyclone. The dried material falls on a vibratory pan on sliding rails. The material (accepts) from the vibratory pan drops into a hopper from where the dried kibbles are pneumatically conveyed to the finished product bins. Each bin shall be vented to a static sock filter. The fines (rejects) from MAC HE52 cyclone discharge and vibratory pan are conveyed to a barrel. The owner or operator shall install and maintain a duct work to discharge exhaust from the vertical cooler cyclone (MAC HE 52) into the duct connected to the RTO. [District Rules 2201 and 4102]
16. The owner or operator shall operate and maintain three identical Durr Systems, Inc.'s Ecopure RL-60 regenerative thermal oxidizers (RTO) each equipped with 7.7 MMBtu/hr burner, associated duct work and control equipment, to abate pet food odors and reduce VOC emissions from all pet food manufacturing lines discharge stacks (wet cyclone (Horizon HT-68), dryer cyclone (MAC HE60) and vertical cooler cyclone (MAC HE52)). [District Rules 2201 and 4102]
17. Each RTO shall be equipped with non-resettable fuel flow meter(s) to measure natural gas fuel flow into each RTO. [District Rule 2201]
18. Each RTO's combustion chamber temperature shall be maintained at or above 1650 degrees Fahrenheit whenever odor abatement is occurring in the specific RTO. [District Rule 2201]

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

19. Each RTO's chamber shall be permanently equipped with temperature measurement devices to determine the average combustion chamber temperature. The combustion temperature shall be continuously monitored and recorded at least every 15-minutes whenever odor abatement is occurring in the specific RTO. The recorded temperature data shall be averaged over a 30-consecutive-minute block to demonstrate compliance with the established RTO combustion chamber temperature. 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]
20. Visible emissions, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.) shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
21. The dryer and RTO(s) shall only be fired on PUC-quality natural gas. [District Rule 2201]
22. PM10 emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.0306 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
23. The post control VOC emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.005 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
24. No more than 36 tons of fresh meat, excluding moisture, shall be injected into the steam-conditioner in any one day. [District Rule 2201]
25. The amount of finished product produced under this line shall not exceed 1,040 tons in any one day. [District Rule 2201]
26. The combined amount of finished product produced through all pet food manufacturing lines (N-8234-4, '-5, '-6 and '-18) shall not exceed 1,040 tons in any one day. [District Rule 2201]
27. Emissions from the dryer shall not exceed any of the following limits: 2.1 ppmvd NO_x @ 19% O₂ (0.024 lb-NO_x/MMBtu), 16.5 ppmvd CO @ 19% O₂ (0.112 lb-CO/MMBtu) and 0.00285 lb-SO_x/MMBtu. [District Rules 2201 and 4309]
28. The RTO(s) shall reduce the VOC emissions (not including VOC emissions from natural gas combustion in the RTO) from pet food manufacturing operations by at least 95% (by weight). [District Rule 2201]
29. The total NO_x emissions from the three RTOs and four dryers combined shall not exceed any of the following limits: 8.343 lb/hr and 200.4 lb/day and 33,639 lb/yr (12-month rolling basis). Compliance with these mass emission rates shall be demonstrated using NO_x (ppmvd) and exhaust gas flow rate (Q, dry standard cubic feet per minute, dscfm) data recorded by the CERMS, according to the following equation: Emissions (lb/hr) = (NO_x ppmvd x 46 lb/lb-mol x 60 min/hr x Q (dscfm)) ÷ (379.5 dscf/lb-mol x 1000,000). Daily emissions for each RTO shall be calculated by summing the hourly emissions for the respective calendar day. Hourly or daily emissions data shall be used to calculate monthly emissions. Monthly data shall be used to calculate rolling 12-month totals. [District Rule 2201]
30. Emissions due to natural gas combustion in each RTO shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM10/MMBtu, 0.88 lb-CO/MMBtu and 0.0055 lb-VOC/MMBtu. [District Rule 2201]
31. Heat input rate to each RTO shall not exceed any of the following limits: 184.8 MMBtu/day and 67,082 MMBtu/year (12-month rolling total). [District Rule 2201]
32. Combined total heat input rate to all three RTOs shall not exceed 156,816 MMBtu/year (12-month rolling total). [District Rule 2201]
33. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ of the dryer (at the exhaust stack of the MAC HE60 cyclone, upstream of the duct collecting discharge from other process streams), at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

34. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4309]
35. If either the dryer NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309]
36. {3744} The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]
37. {33} Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
38. {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
39. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rules 2201 and 4309]
40. 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 2201 and 4309]
41. Source testing to determine NO_x and CO emissions from the dryer at the exhaust stack of the MAC HE60 cyclone by obtaining samples upstream of the duct collecting discharge from other process streams shall be conducted within 180 days of initial startup and at least once every 24 months thereafter. [District Rule 4309]
42. All dryer test results for NO_x and CO shall be reported in ppmv @ 19% O₂ (or no correction if measured above 19% O₂), corrected to dry stack conditions. [District Rule 4309]
43. Source testing to measure steady state NO_x emissions at the exhaust of each RTO system shall be conducted within 180 days of initial startup under this permit and at least once every 24 months thereafter. All RTOs shall be operated and tested simultaneously while treating exhaust stream from the pet food manufacturing lines. Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
44. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 2201 and 4309]
45. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201 and 4309]
46. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201 and 4309]
47. Stack gas velocity or volumetric flow rate shall be determined using EPA Methods 2, 2A, or 2D. [District Rule 2201]

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

48. For VOC and PM10 source testing purposes, one RTO system inlet and outlet may be sampled to determine compliance with various emission limits (i.e., VOC control efficiency, VOC and PM10 emission limits) in this permit. The testing results may be substituted for the other RTO systems instead of sampling each RTO system. Failure to comply with any emission limit in this permit shall constitute violation of permits N-8234-4, '-5, '-6 and '-18. [District Rule 2201]
49. Source testing shall be conducted during an operating configuration representative of normal operations by selecting pet food recipe(s) that can be made continuously throughout the testing without any process interruptions or delays. Each pet food manufacturing line must be operated at or above 90% of the maximum hourly process rate of the chosen recipe. The pet food recipe chosen shall include at least 3% (by weight) of fresh meat. If multiple pet food lines are operated during the test, the operator must utilize the average production rate (tons of finished product produced) to demonstrate compliance with VOC and PM10 emission limits (pounds per ton of finished product produced). [District Rule 2201 and 4102]
50. Source testing to determine compliance with process VOC emission limit (0.005 lb/ton of finished product produced) and VOC control efficiency (95% by weight) of the RTO shall be conducted within 180 days of initial startup under this permit and at least once every twelve months thereafter. After demonstrating compliance on two consecutive annual source tests, 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]
51. Source testing to determine compliance with PM10 emission limit (0.0306 lb/ton of finished product produced) shall be conducted within 180 days of the initial startup under this permit. [District Rule 2201]
52. The process emissions shall be calculated as follows: $VOC (lb/hr) = VOC_{inlet} \text{ of the RTO } (lb/hr) - VOC_{outlet} \text{ of the RTO } (lb/hr)$. $VOC_{outlet} \text{ of the RTO } (lb/hr) = VOC_{measured} \text{ at the outlet of RTO } (lb/hr) - VOC_{natural \text{ gas combustion in the RTO } (lb/hr)}$. $PM10 (lb/hr) = PM10_{outlet} \text{ of the RTO } (lb/hr) - PM10_{natural \text{ gas combustion in the RTO } (lb/hr)}$. The resulting emissions shall be translated into lb/ton basis using the actual average hourly pet food production rate(s). Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
53. 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. In lieu of performing a source test for PM10, the results of the total particulate test (CARB Method 5) 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. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 2201]
54. A presurvey must be done prior to source testing to determine VOC compound analytes present in the effluent streams from wet cyclone, dryer cyclone, and vertical cooler cyclone using the methodology described in EPA Method 18, Section 16. 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, or 308. 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 an appropriate compound, with the balance being scaled to the relative mole fraction of other the 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 be approved by the District. Upon approval from District's Compliance Division, data collected during previous presurveys of various effluent streams may be used to identify VOC compound analytes present in various effluent streams. [District Rule 2201]
55. The District may, at its discretion, require NOx, CO, VOC and PM10 source testing and odor panel testing at any time should conditions at the facility surrounding areas warrants such testing. [District Rules 2201 and 4201]

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

56. During each source test, the owner or operator shall keep track of all parameters that are used in demonstrating compliance with the limits in this permit, including, but not limited to: (1) date, (2) identification of pet food lines that are operated, (3) name of each recipe being produced, (4) amount of fresh meat injection rate, excluding moisture, into the steam-conditioner, (5) actual processing rate of finished product produced, tons/hour, (6) maximum hourly processing rate, tons/hour, for each recipe being produced, (7) RTO chamber temperature data (degrees Fahrenheit), (8) actual amount of fuel combusted in the dryer(s), (9) actual amount of fuel combusted in the RTO, and (10) CERMS data. [District Rules 2201 and 4102]
57. {3721} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
58. The owner or operator shall certify, maintain, operate and quality-assure a Continuous Emission Rate Monitoring System (CERMS) which continuously measures and records the exhaust gas NO_x concentrations and exhaust flow rate, at the exhaust stack of each RTO system. CERMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CERMS passes the relative accuracy requirement specified herein during startups and shutdowns periods. If relative accuracy of CERMS cannot be demonstrated during startup or shutdown periods, CERMS results during startup and shutdown events shall be replaced with startup emission rates obtained during the previous NO_x source testing conducted on January 24, 2019. [District Rules 1080 and 2201]
59. The CERMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080 and 2201]
60. The CERMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 for CEMS and Part 60, Appendix B Performance Specification 6 (PS6), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080 and 2201]
61. In accordance with 40 CFR Part 60, Appendix F, NO_x monitor must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080 and 2201]
62. The owner/operator shall perform a RATA for NO_x (as specified in 40 CFR Part 60, Appendix F) and flow rate sensor at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CERMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F for CEMS equipment. [District Rules 1080 and 2201]
63. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080 and 2201]
64. The CERMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080 and 2201]
65. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CERMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]
66. The facility shall maintain equipment, facilities, and systems compatible with the District's CERMS data polling software system and shall make CERMS data available to the District's automated polling system on a daily basis. [District Rule 1080]
67. Upon notice by the District that the facility's CERMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CERMS data is sent to the District by a District-approved alternative method. [District Rule 1080]
68. The permittee shall maintain the following records for CERMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CERMS was inoperative. [District Rule 1080]

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

69. The owner or operator shall maintain records of NO_x emissions and submit a written report each calendar quarter to the District containing the following information for each operating day: (1) Calendar date; (2) The average hourly NO_x emission rate (expressed as NO₂, lb/hr) measured at the exhaust of each RTO; (3) The total average hourly NO_x emission rate (expressed as NO₂, lb/hr) for all three RTOs using average hourly NO_x emission rate at the exhaust of each RTO (item 2); (4) The total daily NO_x emission rates (lb/day) calculated at the end of each operating day from the measured total average hourly NO_x emission rates; (5) The total monthly NO_x emission rate (lb/month) calculated at the end of each month using total daily NO_x emissions rate; (6) The total annual NO_x emission rate (lb/year, on a rolling 12-month basis) calculated at the end of each month using total monthly NO_x emission rate; (7) Identification of the operating days when the calculated total hourly average NO_x emission rates are in excess of the permitted NO_x emissions, with the reasons for such excess emissions as well as a description of corrective actions taken; (8) Identification of the operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (9) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding such data; (10) Identification of each parameter used in calculations; (11) Identification of the times when the pollutant concentration exceeded full span of the CERMS; (12) Description of any modifications to the CERMS that could affect the ability of the CERMS to comply with Performance Specification 6; (13) Results of daily CERMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (14) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080 and 2201]
70. The owner or operator may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 2201]
71. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]
72. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081]
73. The owner or operator shall notify the District of any breakdown condition (as defined in section 3.1 of District Rule 1100) as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
74. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]
75. The owner or operator shall maintain daily records of the following items: (1) date, (2) name of the pet food recipe being produced, (3) RTO temperature monitoring data, (4) fresh meat injection rate, excluding moisture, into the steam conditioner (tons/day), (5) the combined amount of finished product produced by all pet food manufacturing lines (N-8234-4, '-5, '-6 and '-18, tons/day), (6) amount of finished product produced by this line (tons/day); the combined amount of finished product produced by all pet food manufacturing lines (N-8234-4, '-5, '-6 and '-18, tons/day) may be used to demonstrate compliance with the amount of finished product produced by this line (tons/day), (7) heat input rate to each RTO, in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period, (8) combined total heat input rate to all three RTOs in MMBtu/year on a rolling 12 consecutive month period, (9) combined process and combustion NO_x emissions at the exhaust of each RTO (including the contribution of dryer NO_x emissions) in lb/day and lb/year on a rolling 12 consecutive month period, and (10) combined process and combustion NO_x emissions at the exhaust of all three RTOs (including the contribution of NO_x emissions from dryers) in lb/year on a rolling 12 consecutive month period. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

76. Each RTO system (i.e., RTO, duct work, sensors, and other equipment) shall be operated, and maintained per the manufacturer's (vendor) recommendations. A copy of manufacturer's recommendations shall be kept on site at all times. [District Rule 2201]
77. The owner or operator shall maintain all records of maintenance for each RTO system including date, RTO identification, reason for the maintenance, description of the maintenance activity, name of the individual performing the inspection and company affiliation. [District Rules 2201 and 4102]
78. All records shall be maintained and retained on-site for minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 2201 and 4309]

DRAFT

Appendix B
PTOs N-8234-2-5, '-3-2 and ATC N-8234-4-12, '-5-12 and '-6-12

San Joaquin Valley

Air Pollution Control District

PERMIT UNIT: N-8234-2-5

EXPIRATION DATE: 04/30/2025

EQUIPMENT DESCRIPTION:

PET FOOD MATERIAL DISPENSING, CONVEYING AND STORAGE OPERATIONS

PERMIT UNIT REQUIREMENTS

1. Dispensing System: The material in three 21,430 cubic feet (each) silos in storage area A (West) shall be dispensed into enclosed drag screw conveyor(s) A-1 and/or A-2. The material in six 2,560 cubic feet (each) bins in storage area A shall be dispensed into enclosed belt conveyor(s) C and/or D. The material in three 21,430 cubic feet (each) silos and six 2,560 cubic feet (each) bins in storage area B (East) shall be dispensed into enclosed drag screw conveyor(s) A-3 and/or A-4 and then dispensed into enclosed belt conveyor(s) C and/or D. [District Rule 2201]
2. Conveying and Storage System: The enclosed drag screw conveyors A1, A-2, A-3 and A-4 transfer the material into enclosed belt conveyor(s) C and/or D. Enclosed belt conveyors C and/or D transfer material into enclosed bucket elevators (leg #3, leg #4) that feed any of the 75 bins in the mill tower. The enclosed bucket elevators (leg #3, leg #4), drag screw conveyors, and each mill tower bin shall be equipped with Horizon Systems Model 21VFTC6 (or equal) cartridge dust collector systems. [District Rule 2201]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. All exhaust stacks under this permit shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
6. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
7. Visible emissions at the exhaust of each dust collector system shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
8. PM10 emissions from material transfer and storage operations covered under this permit shall not exceed 0.00025 pounds per ton of material stored. [District Rule 2201]
9. No more than 800 tons/day and 90,000 tons/year (12-month rolling basis) of total material that is dispensed from outdoor silos/bins shall be transferred to storage bins in the mill tower. [District Rule 2201]
10. The owner or operator shall keep daily records of the total material transferred to storage bins in the mill tower. [District Rule 2201]
11. The owner or operator shall keep monthly records of the total material transferred to storage bins in the mill tower. These monthly records shall be used to determine compliance with annual processing rate limits on a 12-month rolling basis. [District Rule 2201]
12. 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 and 2201]

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley

Air Pollution Control District

PERMIT UNIT: N-8234-3-2

EXPIRATION DATE: 04/30/2025

EQUIPMENT DESCRIPTION:

PET FOOD MATERIAL DISPENSING, MIXING, GRINDING AND SCREENING, EXTRUSION SURGE BINS, AND ASSOCIATED CONVEYING OPERATIONS

PERMIT UNIT REQUIREMENTS

1. Dispensing System: The material is dispensed from the bins in the mill tower to their associated scale bins. There are 4 scale bins located under the 75 bins. Each scale services approximately 25% of the bins in the mill tower. The four scale bins dispense into a six ton dual ribbon mixer described in item the condition below. Each scale bin shall be equipped with HORIZON SYSTEMS Model 21VFTC6 (or equal) cartridge dust collector system. [District Rule 2201]
2. Mixing and Conveying System: The material in the 4 scale bins is dispensed into an enclosed six ton dual ribbon mixer. There is one mixer surge bin with a connected screw conveyor that transfers the material into another screw conveyor served by HORIZON SYSTEMS MODEL 21VFTC6 (or equal) dust collector system that either transfers the material into an enclosed bucket elevator feeding an enclosed transfer auger or a portion of the material into a truck loadout spout. The enclosed transfer auger feeds three surge bins one associated with each hammer mill. Each surge bin shall be equipped with HORIZON SYSTEMS MODEL 21VFTC6 (or equal) dust collector system. The truck loadout spout distributes product into a turn-head that services 4 unloading bins. Each unloading bin is vented with HORIZON SYSTEMS Model 21VFTC6 (or equal) dust collector system. The loadout spout of each unloading bin shall have a sock filter to minimize entrainment of material dust into the atmosphere. [District Rule 2201]
3. Grinding, Screening, and Conveying System: There are three identical hammermill systems. Each system consists of a hammer mill feeding system, a hammermill, a hammermill plenum, an enclosed screw conveyor, a vibratory screener, and a pneumatic transfer system (bin vent filter with static socks) transferring overs from the screener to the surge bin of hammermill. Each hammermill/plenum shall be equipped with MAC LST AIR 96LST196 (or equal) baghouse. Each vibratory screener shall be vented to HORIZON SYSTEMS MODEL 21VFTC6 (or equal) cartridge filter. The ground material from each hammermill system shall be pneumatically transferred using a filter receiver system into three sets of a paired extruder surge bin system (mentioned in the condition below). The displaced air from the filter receiver system shall be vented through a HORIZON SYSTEMS 40SWRDL 16 (or equal) baghouse. [District Rule 2201]
4. Extruder Surge Bins: Three sets of identical extruder surge bins, each set contains two bins, each with dimensions approx. 8' x 8' x 20', and each bin shall be equipped with HORIZON SYSTEMS MODEL 21VFTC6 (or equal) cartridge dust collector system. [District Rule 2201]
5. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. Particulate matter, at exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
7. All exhaust stacks under this permit shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
8. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

9. Visible emissions, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.) shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
10. PM10 emissions from each hammermill system shall not exceed 0.021 pounds per ton of material processed. [District Rule 2201]
11. The amount of material processed through each hammermill system shall not exceed 800 tons in any one day. [District Rule 2201]
12. The total material processed through all three hammermill systems shall not exceed 800 tons in any one day. [District Rule 2201]
13. PM10 emissions from the truck loadout operation shall not exceed 0.000917 pounds per ton of material loaded into trucks. [District Rule 2201]
14. No more than 800 tons of material shall be processed or loaded into trucks using truck loadout spout in any one day. [District Rule 2201]
15. The permittee shall keep records of the date, the amount of total material processed in hammer mill systems, and the amount of material loaded into trucks. [District Rule 2201]
16. 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]

These terms and conditions are part of the Facility-wide Permit to Operate.

AUTHORITY TO CONSTRUCT

PERMIT NO: N-8234-4-12

ISSUANCE DATE: 12/29/2020

LEGAL OWNER OR OPERATOR: DIAMOND PET FOOD PROCESSORS OF RIPON

MAILING ADDRESS: 942 S STOCKTON AVE
RIPON, CA 95366

LOCATION: 942 S STOCKTON AVE
RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD PROCESSING LINE #1: INSTALL THREE DURR SYSTEMS, INC. ECOPURE RL-60 REGENERATIVE THERMAL OXIDIZERS (RTO) AND ASSOCIATED DUCT WORK TO TREAT LADEN AIR DISCHARGE FROM WET CYCLONE, DRYER & DRYER-COOLER, AND VERTICAL COOLER STACKS UNDER PERMITS N-8234-4, '-5 AND '-6, REMOVE COLD PLASMA INJECTION SYSTEMS AND ODORANT INJECTION SYSTEMS, AND MAKE CHANGES TO THE EXISTING REQUIREMENTS TO MATCH "AS-BUILT" PLANT CONFIGURATION, REVISE THE NOX, CO AND PM10 EMISSIONS LIMITS, REVISE THE HEAT INPUT RATE FOR EACH RTO, AND INSTALL A CONTINUOUS EMISSIONS RATE MONITORING SYSTEM (CERMS) TO MONITOR AND RECORD NOX EMISSIONS RATE AT THE EXHAUST STACK OF EACH RTO

CONDITIONS

1. Authority to Construct N-8234-4-10 shall be cancelled upon implementation of this Authority to Construct permit. [District Rule 2201]
2. Within 12 months from the date of the issuance of this permit, the permittee shall either submit an application to comply with Rule 2520 (Federally Mandated Operating Permits) or shall comply with District Rule 2530 (Federally Enforceable Potential to Emit). If the facility chooses the option to comply with District Rule 2530, the facility shall notify the District by submitting a request to include the District Rule 2530 conditions on their permits to operate prior to the 12-month deadline. [District Rule 2520]
3. Prior to operating equipment under this Authority to Construct N-8234-4-12, N-8234-5-12 and N-8234-6-12, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 5,008 lb, 2nd quarter - 5,008 lb, 3rd quarter - 5,008 lb, and fourth quarter - 5,009 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO



Arnaud Marjollet, Director of Permit Services

N-8234-4-12 : Dec 29 2020 9:09AM -- KAHLOJ : Joint Inspection NOT Required

4. ERC Certificate Number N-1525-2 (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]
5. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. Particulate matter, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
7. All exhaust stacks under this permit shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
8. 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]
9. Material Dispensing, Kibble Manufacturing, and Conveying Systems: The material from the extruder surge bin is dispensed into an extruder bin from where the material is transferred into an EXTRU-TECH 24X144 steam-conditioner system. The material is extruded to form kibbles. The kibbles are pneumatically conveyed using HEPA filtered air into a dryer receiving chamber using HORIZON SYSTEMS HT-68 high volume cyclone. The owner or operator shall install and maintain a duct work to discharge exhaust from the wet cyclone (Horizon HT-68) into the duct connected to the RTO. [District Rules 2201 and 4201]
10. Dryer System: The system consists of an EXTRU-TECH 1053-2P-AF11, 10 MMBtu/hr (total) direct-fired natural gas fired dryer with five drying sections, each section is equipped with an ECLIPSE WINNOX WX0200 burner with a maximum heat input rate of 2.0 MMBtu/hr. The dryer exhaust is vented to a MAC HE60 high efficiency cyclone. The owner or operator shall install and maintain a duct work to discharge exhaust from the dryer cyclone (MAC HE60) into the duct connected to the RTO. [District Rules 2201 and 4102]
11. Cooler and Conveying System: The system consists of three cooler sections, all vented to a MAC high efficiency cyclone, a discharge conveyor for the transfer of dried kibbles into a hopper. The material from the hopper is pneumatically conveyed to an enclosed shaker screener. The owner or operator shall install and maintain a duct work to re-circulate the exhaust from the dryer cooler cyclone (MAC) into the Dryer System. [District Rules 2201 and 4102]
12. Fines Collection and Conveying System: This system collects fines from two locations in the dryer, the dryer cyclone discharge, and the cooler cyclone discharge, and vents these fines to a HORIZON SYSTEMS 28S WRDL8 baghouse. This baghouse is vented indoors. [District Rule 2201]
13. Screening and Conveying System. The system consists of an enclosed shaker screener, an enclosed surge bin, and an enclosed weigh belt. The fines (rejects) are dropped to the dumpsters. [District Rule 2201]
14. Coating and Conveying System: The system consists of a hopper where material from a weight belt is sprayed with chicken fat and canola oil (or other similar ingredients) and a coating reel where dry dog/cat digest and probiotics (or other similar ingredients) are sprinkled to be absorbed into the kibbles. The kibbles are then conveyed pneumatically to a vertical cooler system using a filter receiver system with a static sock filter. [District Rule 2201]
15. Vertical Cooler and Conveying System: A vertical cooler vented to a MAC HE52 high efficiency cyclone. The dried material falls on a vibratory pan on sliding rails. The material (accepts) from the vibratory pan drops into a hopper from where the dried kibbles are pneumatically conveyed to the finished product bins. Each bin shall be vented to a static sock filter. The fines (rejects) from MAC HE52 cyclone discharge and vibratory pan are conveyed to a barrel. The owner or operator shall install and maintain a duct work to discharge exhaust from the vertical cooler cyclone (MAC HE 52) into the duct connected to the RTO. [District Rules 2201 and 4102]
16. The owner or operator shall install, operate and maintain three identical Durr Systems, Inc.'s Ecopure RL-60 regenerative thermal oxidizers (RTO) each equipped with 7.7 MMBtu/hr burner, associated duct work and control equipment, to abate pet food odors and reduce VOC emissions from all pet food manufacturing lines discharge stacks (wet cyclone (Horizon HT-68), dryer cyclone (MAC HE60) and vertical cooler cyclone (MAC HE52)). [District Rules 2201 and 4102]
17. Each RTO shall be equipped with non-resettable fuel flow meter(s) to measure natural gas fuel flow into each RTO. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

18. Each RTO's combustion chamber temperature shall be maintained at or above 1650 degrees Fahrenheit whenever odor abatement is occurring in the specific RTO. [District Rule 2201]
19. Each RTO's chamber shall be permanently equipped with temperature measurement devices to determine the average combustion chamber temperature. The combustion temperature shall be continuously monitored and recorded at least every 15-minutes whenever odor abatement is occurring in the specific RTO. The recorded temperature data shall be averaged over a 30-consecutive-minute block to demonstrate compliance with the established RTO combustion chamber temperature. 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]
20. Visible emissions, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.) shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
21. The dryer and RTO(s) shall only be fired on PUC-quality natural gas. [District Rule 2201]
22. PM10 emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.0306 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
23. The post control VOC emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.005 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
24. No more than 36 tons of fresh meat, excluding moisture, shall be injected into the steam-conditioner in any one day. [District Rule 2201]
25. The amount of finished product produced under this line shall not exceed 780 tons in any one day. [District Rule 2201]
26. The combined amount of finished product produced through all pet food manufacturing lines (N-8234-4, '-5 and '-6) shall not exceed 780 tons in any one day. [District Rule 2201]
27. Emissions from the dryer shall not exceed any of the following limits: 2.1 ppmvd NOx @ 19% O2 (0.024 lb-NOx/MMBtu), 16.5 ppmvd CO @ 19% O2 (0.112 lb-CO/MMBtu) and 0.00285 lb-SOx/MMBtu. [District Rules 2201 and 4309]
28. The RTO(s) shall reduce the VOC emissions (not including VOC emissions from natural gas combustion in the RTO) from pet food manufacturing operations by at least 95% (by weight). [District Rule 2201]
29. The total NOx emissions from the three RTO unit system and three dryers combined shall not exceed any of the following limits: 8.343 lb/hr and 200.4 lb/day and 33,639 lb/yr (12-month rolling basis). Compliance with these mass emission rates shall be demonstrated using NOx (ppmvd) and exhaust gas flow rate (Q, dry standard cubic feet per minute, dscfm) data recorded by the CERMS, according to the following equation: Emissions (lb/hr) = (NOx ppmvd x 46 lb/lb-mol x 60 min/hr x Q (dscfm)) ÷ (379.5 dscf/lb-mol x 1000,000). Daily emissions for each RTO shall be calculated by summing the hourly emissions for the respective calendar day. Hourly or daily emissions data shall be used to calculate monthly emissions. Monthly data shall be used to calculate rolling 12-month totals. [District Rule 2201]
30. Emissions due to natural gas combustion in each RTO shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 0.88 lb-CO/MMBtu and 0.0055 lb-VOC/MMBtu. [District Rule 2201]
31. Heat input rate to each RTO shall not exceed any of the following limits: 184.8 MMBtu/day and 67,082 MMBtu/year (12-month rolling total). [District Rule 2201]
32. Combined total heat input rate to all three RTOs shall not exceed 156,816 MMBtu/year (12-month rolling total). [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

33. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ of the dryer (at the exhaust stack of the MAC HE60 cyclone, upstream of the duct collecting discharge from other process streams), at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]
34. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4309]
35. If either the dryer NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309]
36. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]
37. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
38. 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]
39. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rules 2201 and 4309]
40. 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 2201 and 4309]
41. Source testing to determine NO_x and CO emissions from the dryer at the exhaust stack of the MAC HE60 cyclone by obtaining samples upstream of the duct collecting discharge from other process streams shall be conducted at least once every 24 months. [District Rule 4309]
42. All dryer test results for NO_x and CO shall be reported in ppmv @ 19% O₂ (or no correction if measured above 19% O₂), corrected to dry stack conditions. [District Rule 4309]
43. Source testing to measure steady state NO_x emissions at the exhaust of each RTO system shall be conducted within 60 days of initial startup under this permit and at least once every 24 months thereafter. All RTOs shall be operated and tested simultaneously while treating exhaust stream from the pet food manufacturing lines. Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
44. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 2201 and 4309]

CONDITIONS CONTINUE ON NEXT PAGE

45. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201 and 4309]
46. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201 and 4309]
47. Stack gas velocity or volumetric flow rate shall be determined using EPA Methods 2, 2A, or 2D. [District Rule 2201]
48. For VOC source testing, one RTO system inlet and outlet may be sampled to determine compliance with various emission limits (i.e., VOC control efficiency, VOC emission limit) in this permit. The testing results may be substituted for the other RTO systems instead of sampling each RTO system. Failure to comply with any emission limit in this permit shall constitute violation of permits N-8234-4, '-5 and '-6. [District Rule 2201]
49. Source testing shall be conducted during an operating configuration representative of normal operations by selecting pet food recipe(s) that can be made continuously throughout the testing without any process interruptions or delays. Each pet food manufacturing line must be operated at or above 90% of the maximum hourly process rate of the chosen recipe. The pet food recipe chosen shall include at least 3% (by weight) of fresh meat. If multiple pet food lines are operated during the test, the operator must utilize the average production rate (tons of finished product produced) to demonstrate compliance with VOC emission limits (pounds per ton of finished product produced). [District Rule 2201 and 4102]
50. Source testing to determine compliance with process VOC emission limit (0.005 lb/ton of finished product produced) and VOC control efficiency (95% by weight) of the RTO shall be conducted at least once every twelve months. After demonstrating compliance on two consecutive annual source tests, 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]
51. The process VOC emissions shall be calculated as follows: $VOC (lb/hr) = VOC_{inlet} \text{ of the RTO } (lb/hr) - VOC_{outlet} \text{ of the RTO } (lb/hr)$. $VOC_{outlet} \text{ of the RTO } (lb/hr) = VOC_{measured} \text{ at the outlet of RTO } (lb/hr) - VOC_{natural} \text{ gas combustion in the RTO } (lb/hr)$. The resulting emissions shall be translated into lb/ton basis using the actual average hourly pet food production rate(s). Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
52. A presurvey must be done prior to source testing to determine VOC compound analytes present in the effluent streams from wet cyclone, dryer cyclone, and vertical cooler cyclone using the methodology described in EPA Method 18, Section 16. 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, or 308. 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 an appropriate compound, with the balance being scaled to the relative mole fraction of other the 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 be approved by the District. Upon approval from District's Compliance Division, data collected during previous presurveys of various effluent streams may be used to identify VOC compound analytes present in various effluent streams. [District Rule 2201]
53. The District may, at its discretion, require NO_x, CO, VOC and PM₁₀ source testing and odor panel testing at any time should conditions at the facility surrounding areas warrants such testing. [District Rules 2201 and 4201]
54. During each source test, the owner or operator shall keep track of all parameters that are used in demonstrating compliance with the limits in this permit, including, but not limited to: (1) date, (2) identification of pet food lines that are operated, (3) name of each recipe being produced, (4) amount of fresh meat injection rate, excluding moisture, into the steam-conditioner, (5) actual processing rate of finished product produced, tons/hour, (6) maximum hourly processing rate, tons/hour, for each recipe being produced, (7) RTO chamber temperature data (degrees Fahrenheit), (8) actual amount of fuel combusted in the dryer(s), (9) actual amount of fuel combusted in the RTO, and (10) CERMS data. [District Rules 2201 and 4102]
55. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

CONDITIONS CONTINUE ON NEXT PAGE

56. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Rate Monitoring System (CERMS) which continuously measures and records the exhaust gas NO_x concentrations and exhaust flow rate, at the exhaust stack of each RTO system. CERMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CERMS passes the relative accuracy requirement specified herein during startups and shutdowns periods. If relative accuracy of CERMS cannot be demonstrated during startup or shutdown periods, CERMS results during startup and shutdown events shall be replaced with startup emission rates obtained during the previous NO_x source testing conducted on January 24, 2019. [District Rules 1080 and 2201]
57. The CERMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080 and 2201]
58. The CERMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 for CEMS and Part 60, Appendix B Performance Specification 6 (PS6), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080 and 2201]
59. In accordance with 40 CFR Part 60, Appendix F, NO_x monitor must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080 and 2201]
60. The owner/operator shall perform a RATA for NO_x (as specified in 40 CFR Part 60, Appendix F) and flow rate sensor at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CERMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F for CEMS equipment. [District Rules 1080 and 2201]
61. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080 and 2201]
62. The CERMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080 and 2201]
63. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CERMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]
64. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CERMS data polling software system and shall make CERMS data available to the District's automated polling system on a daily basis. [District Rule 1080]
65. Upon notice by the District that the facility's CERMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CERMS data is sent to the District by a District-approved alternative method. [District Rule 1080]
66. The permittee shall maintain the following records for CERMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CERMS was inoperative. [District Rule 1080]

67. The owner or operator shall maintain records of NO_x emissions and submit a written report each calendar quarter to the District containing the following information for each operating day: (1) Calendar date; (2) The average hourly NO_x emission rate (expressed as NO₂, lb/hr) measured at the exhaust of each RTO; (3) The total average hourly NO_x emission rate (expressed as NO₂, lb/hr) for all three RTOs using average hourly NO_x emission rate at the exhaust of each RTO (item 2); (4) The total daily NO_x emission rates (lb/day) calculated at the end of each operating day from the measured total average hourly NO_x emission rates; (5) The total monthly NO_x emission rate (lb/month) calculated at the end of each month using total daily NO_x emissions rate; (6) The total annual NO_x emission rate (lb/year, on a rolling 12-month basis) calculated at the end of each month using total monthly NO_x emission rate; (7) Identification of the operating days when the calculated total hourly average NO_x emission rates are in excess of the permitted NO_x emissions, with the reasons for such excess emissions as well as a description of corrective actions taken; (8) Identification of the operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (9) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding such data; (10) Identification of each parameter used in calculations; (11) Identification of the times when the pollutant concentration exceeded full span of the CERMS; (12) Description of any modifications to the CERMS that could affect the ability of the CERMS to comply with Performance Specification 6; (13) Results of daily CERMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (14) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080 and 2201]
68. The owner or operator may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 2201]
69. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]
70. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081]
71. The owner or operator shall notify the District of any breakdown condition (as defined in section 3.1 of District Rule 1100) as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
72. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]
73. The owner or operator shall maintain daily records of the following items: (1) date, (2) name of the pet food recipe being produced, (3) RTO temperature monitoring data, (4) fresh meat injection rate, excluding moisture, into the steam conditioner (tons/day), (5) the combined amount of finished product produced by all pet food manufacturing lines (N-8234-4, '-5 and '-6, tons/day), (6) amount of finished product produced by this line (tons/day); the combined amount of finished product produced by all pet food manufacturing lines (N-8234-4, '-5 and '-6, tons/day) may be used to demonstrate compliance with the amount of finished product produced by this line (tons/day), (7) heat input rate to each RTO, in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period, (8) combined total heat input rate to all three RTOs in MMBtu/year on a rolling 12 consecutive month period, (9) combined process and combustion NO_x emissions at the exhaust of each RTO (including the contribution of dryer NO_x emissions) in lb/day and lb/year on a rolling 12 consecutive month period, and (10) combined process and combustion NO_x emissions at the exhaust of all three RTOs (including the contribution of NO_x emissions from dryers) in lb/year on a rolling 12 consecutive month period. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

74. Each RTO system (i.e., RTO, duct work, sensors, and other equipment) shall be installed, operated, and maintained per the manufacturer's (vendor) recommendations. A copy of manufacturer's recommendations shall be kept on site at all times. [District Rule 2201]
75. The owner or operator shall maintain all records of maintenance for each RTO system including date, RTO identification, reason for the maintenance, description of the maintenance activity, name of the individual performing the inspection and company affiliation. [District Rules 2201 and 4102]
76. All records shall be maintained and retained on-site for minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 2201 and 4309]

AUTHORITY TO CONSTRUCT

PERMIT NO: N-8234-5-12

ISSUANCE DATE: 12/29/2020

LEGAL OWNER OR OPERATOR: DIAMOND PET FOOD PROCESSORS OF RIPON

MAILING ADDRESS: 942 S STOCKTON AVE
RIPON, CA 95366

LOCATION: 942 S STOCKTON AVE
RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD PROCESSING LINE #2: INSTALL THREE DURR SYSTEMS, INC. ECOPURE RL-60 REGENERATIVE THERMAL OXIDIZERS (RTO) AND ASSOCIATED DUCT WORK TO TREAT LADEN AIR DISCHARGE FROM WET CYCLONE, DRYER & DRYER-COOLER, AND VERTICAL COOLER STACKS UNDER PERMITS N-8234-4, '-5 AND '-6, REMOVE COLD PLASMA INJECTION SYSTEMS AND ODORANT INJECTION SYSTEMS, AND MAKE CHANGES TO THE EXISTING REQUIREMENTS TO MATCH "AS-BUILT" PLANT CONFIGURATION, REVISE THE NOX, CO AND PM10 EMISSIONS LIMIT, REVISE THE HEAT INPUT RATE FOR EACH RTO, AND INSTALL A CONTINUOUS EMISSIONS RATE MONITORING SYSTEM (CERMS) TO MONITOR AND RECORD NOX EMISSIONS RATE AT THE EXHAUST STACK OF EACH RTO

CONDITIONS

1. Authority to Construct N-8234-5-10 shall be cancelled upon implementation of this Authority to Construct permit. [District Rule 2201]
2. Within 12 months from the date of the issuance of this permit, the permittee shall either submit an application to comply with Rule 2520 (Federally Mandated Operating Permits) or shall comply with District Rule 2530 (Federally Enforceable Potential to Emit). If the facility chooses the option to comply with District Rule 2530, the facility shall notify the District by submitting a request to include the District Rule 2530 conditions on their permits to operate prior to the 12-month deadline. [District Rule 2520]
3. Prior to operating equipment under this Authority to Construct N-8234-4-12, N-8234-5-12 and N-8234-6-12, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 5,008 lb, 2nd quarter - 5,008 lb, 3rd quarter - 5,008 lb, and fourth quarter - 5,009 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO



Arnaud Marjollet, Director of Permit Services

N-8234-5-12 : Dec 29 2020 9:09AM -- KAHLOUJ : Joint Inspection NOT Required

4. ERC Certificate Number N-1525-2 (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]
5. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. Particulate matter, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
7. All exhaust stacks under this permit shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
8. 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]
9. Material Dispensing, Kibble Manufacturing, and Conveying Systems: The material from the extruder surge bin is dispensed into an extruder bin from where the material is transferred into an EXTRU-TECH 24X144 steam-conditioner system. The material is extruded to form kibbles. The kibbles are pneumatically conveyed using HEPA filtered air into a dryer receiving chamber using HORIZON SYSTEMS HT-68 high volume cyclone. The owner or operator shall install and maintain a duct work to discharge exhaust from the wet cyclone (Horizon HT-68) into the duct connected to the RTO. [District Rules 2201 and 4201]
10. Dryer System: The system consists of an EXTRU-TECH 1053-2P-AF11, 10 MMBtu/hr (total) direct-fired natural gas fired dryer with five drying sections, each section is equipped with an ECLIPSE WINNOX WX0200 burner with a maximum heat input rate of 2.0 MMBtu/hr. The dryer exhaust is vented to a MAC HE60 high efficiency cyclone. The owner or operator shall install and maintain a duct work to discharge exhaust from the dryer cyclone (MAC HE60) into the duct connected to the RTO. [District Rules 2201 and 4102]
11. Cooler and Conveying System: The system consists of three cooler sections, all vented to a MAC high efficiency cyclone, a discharge conveyor for the transfer of dried kibbles into a hopper. The material from the hopper is pneumatically conveyed to an enclosed shaker screener. The owner or operator shall install and maintain a duct work to re-circulate the exhaust from the dryer cooler cyclone (MAC) into the Dryer System. [District Rules 2201 and 4102]
12. Fines Collection and Conveying System: This system collects fines from two locations in the dryer, the dryer cyclone discharge, and the cooler cyclone discharge, and vents these fines to a HORIZON SYSTEMS 28S WRDL8 baghouse. This baghouse is vented indoors. [District Rule 2201]
13. Screening and Conveying System. The system consists of an enclosed shaker screener, an enclosed surge bin, and an enclosed weigh belt. The fines (rejects) are dropped to the dumpsters. [District Rule 2201]
14. Coating and Conveying System: The system consists of a hopper where material from a weight belt is sprayed with chicken fat and canola oil (or other similar ingredients) and a coating reel where dry dog/cat digest and probiotics (or other similar ingredients) are sprinkled to be absorbed into the kibbles. The kibbles are then conveyed pneumatically to a vertical cooler system using a filter receiver system with a static sock filter. [District Rule 2201]
15. Vertical Cooler and Conveying System: A vertical cooler vented to a MAC HE52 high efficiency cyclone. The dried material falls on a vibratory pan on sliding rails. The material (accepts) from the vibratory pan drops into a hopper from where the dried kibbles are pneumatically conveyed to the finished product bins. Each bin shall be vented to a static sock filter. The fines (rejects) from MAC HE52 cyclone discharge and vibratory pan are conveyed to a barrel. The owner or operator shall install and maintain a duct work to discharge exhaust from the vertical cooler cyclone (MAC HE 52) into the duct connected to the RTO. [District Rules 2201 and 4102]
16. The owner or operator shall install, operate and maintain three identical Durr Systems, Inc.'s Ecopure RL-60 regenerative thermal oxidizers (RTO) each equipped with 7.7 MMBtu/hr burner, associated duct work and control equipment, to abate pet food odors and reduce VOC emissions from all pet food manufacturing lines discharge stacks (wet cyclone (Horizon HT-68), dryer cyclone (MAC HE60) and vertical cooler cyclone (MAC HE52)). [District Rules 2201 and 4102]
17. Each RTO shall be equipped with non-resettable fuel flow meter(s) to measure natural gas fuel flow into each RTO. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

18. Each RTO's combustion chamber temperature shall be maintained at or above 1650 degrees Fahrenheit whenever odor abatement is occurring in the specific RTO. [District Rule 2201]
19. Each RTO's chamber shall be permanently equipped with temperature measurement devices to determine the average combustion chamber temperature. The combustion temperature shall be continuously monitored and recorded at least every 15-minutes whenever odor abatement is occurring in the specific RTO. The recorded temperature data shall be averaged over a 30-consecutive-minute block to demonstrate compliance with the established RTO combustion chamber temperature. 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]
20. Visible emissions, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.) shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
21. The dryer and RTO(s) shall only be fired on PUC-quality natural gas. [District Rule 2201]
22. PM10 emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.0306 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
23. The post control VOC emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.005 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
24. No more than 36 tons of fresh meat, excluding moisture, shall be injected into the steam-conditioner in any one day. [District Rule 2201]
25. The amount of finished product produced under this line shall not exceed 780 tons in any one day. [District Rule 2201]
26. The combined amount of finished product produced through all pet food manufacturing lines (N-8234-4, '-5 and '-6) shall not exceed 780 tons in any one day. [District Rule 2201]
27. Emissions from the dryer shall not exceed any of the following limits: 2.1 ppmvd NOx @ 19% O2 (0.024 lb-NOx/MMBtu), 16.5 ppmvd CO @ 19% O2 (0.112 lb-CO/MMBtu) and 0.00285 lb-SOx/MMBtu. [District Rules 2201 and 4309]
28. The RTO(s) shall reduce the VOC emissions (not including VOC emissions from natural gas combustion in the RTO) from pet food manufacturing operations by at least 95% (by weight). [District Rule 2201]
29. The total NOx emissions from the three RTO unit system and three dryers combined shall not exceed any of the following limits: 8.343 lb/hr and 200.4 lb/day and 33,639 lb/yr (12-month rolling basis). Compliance with these mass emission rates shall be demonstrated using NOx (ppmvd) and exhaust gas flow rate (Q, dry standard cubic feet per minute, dscfm) data recorded by the CERMS, according to the following equation: Emissions (lb/hr) = (NOx ppmvd x 46 lb/lb-mol x 60 min/hr x Q (dscfm)) ÷ (379.5 dscf/lb-mol x 1000,000). Daily emissions for each RTO shall be calculated by summing the hourly emissions for the respective calendar day. Hourly or daily emissions data shall be used to calculate monthly emissions. Monthly data shall be used to calculate rolling 12-month totals. [District Rule 2201]
30. Emissions due to natural gas combustion in each RTO shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 0.88 lb-CO/MMBtu and 0.0055 lb-VOC/MMBtu. [District Rule 2201]
31. Heat input rate to each RTO shall not exceed any of the following limits: 184.8 MMBtu/day and 67,082 MMBtu/year (12-month rolling total). [District Rule 2201]
32. Combined total heat input rate to all three RTOs shall not exceed 156,816 MMBtu/year (12-month rolling total). [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

33. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ of the dryer (at the exhaust stack of the MAC HE60 cyclone, upstream of the duct collecting discharge from other process streams), at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]
34. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4309]
35. If either the dryer NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309]
36. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]
37. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
38. 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]
39. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rules 2201 and 4309]
40. 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 2201 and 4309]
41. Source testing to determine NO_x and CO emissions from the dryer at the exhaust stack of the MAC HE60 cyclone by obtaining samples upstream of the duct collecting discharge from other process streams shall be conducted at least once every 24 months. [District Rule 4309]
42. All dryer test results for NO_x and CO shall be reported in ppmv @ 19% O₂ (or no correction if measured above 19% O₂), corrected to dry stack conditions. [District Rule 4309]
43. Source testing to measure steady state NO_x emissions at the exhaust of each RTO system shall be conducted within 60 days of initial startup under this permit and at least once every 24 months thereafter. All RTOs shall be operated and tested simultaneously while treating exhaust stream from the pet food manufacturing lines. Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
44. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 2201 and 4309]

CONDITIONS CONTINUE ON NEXT PAGE

45. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201 and 4309]
46. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201 and 4309]
47. Stack gas velocity or volumetric flow rate shall be determined using EPA Methods 2, 2A, or 2D. [District Rule 2201]
48. For VOC source testing, one RTO system inlet and outlet may be sampled to determine compliance with various emission limits (i.e., VOC control efficiency, VOC emission limit) in this permit. The testing results may be substituted for the other RTO systems instead of sampling each RTO system. Failure to comply with any emission limit in this permit shall constitute violation of permits N-8234-4, '-5 and '-6. [District Rule 2201]
49. Source testing shall be conducted during an operating configuration representative of normal operations by selecting pet food recipe(s) that can be made continuously throughout the testing without any process interruptions or delays. Each pet food manufacturing line must be operated at or above 90% of the maximum hourly process rate of the chosen recipe. The pet food recipe chosen shall include at least 3% (by weight) of fresh meat. If multiple pet food lines are operated during the test, the operator must utilize the average production rate (tons of finished product produced) to demonstrate compliance with VOC emission limits (pounds per ton of finished product produced). [District Rule 2201 and 4102]
50. Source testing to determine compliance with process VOC emission limit (0.005 lb/ton of finished product produced) and VOC control efficiency (95% by weight) of the RTO shall be conducted at least once every twelve months. After demonstrating compliance on two consecutive annual source tests, 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]
51. The process VOC emissions shall be calculated as follows: $VOC (lb/hr) = VOC_{inlet} \text{ of the RTO } (lb/hr) - VOC_{outlet} \text{ of the RTO } (lb/hr)$. $VOC_{outlet} \text{ of the RTO } (lb/hr) = VOC_{measured} \text{ at the outlet of RTO } (lb/hr) - VOC_{natural} \text{ gas combustion in the RTO } (lb/hr)$. The resulting emissions shall be translated into lb/ton basis using the actual average hourly pet food production rate(s). Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
52. A presurvey must be done prior to source testing to determine VOC compound analytes present in the effluent streams from wet cyclone, dryer cyclone, and vertical cooler cyclone using the methodology described in EPA Method 18, Section 16. 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, or 308. 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 an appropriate compound, with the balance being scaled to the relative mole fraction of other the 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 be approved by the District. Upon approval from District's Compliance Division, data collected during previous presurveys of various effluent streams may be used to identify VOC compound analytes present in various effluent streams. [District Rule 2201]
53. The District may, at its discretion, require NO_x, CO, VOC and PM₁₀ source testing and odor panel testing at any time should conditions at the facility surrounding areas warrants such testing. [District Rules 2201 and 4201]
54. During each source test, the owner or operator shall keep track of all parameters that are used in demonstrating compliance with the limits in this permit, including, but not limited to: (1) date, (2) identification of pet food lines that are operated, (3) name of each recipe being produced, (4) amount of fresh meat injection rate, excluding moisture, into the steam-conditioner, (5) actual processing rate of finished product produced, tons/hour, (6) maximum hourly processing rate, tons/hour, for each recipe being produced, (7) RTO chamber temperature data (degrees Fahrenheit), (8) actual amount of fuel combusted in the dryer(s), (9) actual amount of fuel combusted in the RTO, and (10) CERMS data. [District Rules 2201 and 4102]
55. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

CONDITIONS CONTINUE ON NEXT PAGE

56. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Rate Monitoring System (CERMS) which continuously measures and records the exhaust gas NO_x concentrations and exhaust flow rate, at the exhaust stack of each RTO system. CERMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CERMS passes the relative accuracy requirement specified herein during startups and shutdowns periods. If relative accuracy of CERMS cannot be demonstrated during startup or shutdown periods, CERMS results during startup and shutdown events shall be replaced with startup emission rates obtained during the previous NO_x source testing conducted on January 24, 2019. [District Rules 1080 and 2201]
57. The CERMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080 and 2201]
58. The CERMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 for CEMS and Part 60, Appendix B Performance Specification 6 (PS6), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080 and 2201]
59. In accordance with 40 CFR Part 60, Appendix F, NO_x monitor must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080 and 2201]
60. The owner/operator shall perform a RATA for NO_x (as specified in 40 CFR Part 60, Appendix F) and flow rate sensor at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CERMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F for CEMS equipment. [District Rules 1080 and 2201]
61. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080 and 2201]
62. The CERMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080 and 2201]
63. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CERMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]
64. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CERMS data polling software system and shall make CERMS data available to the District's automated polling system on a daily basis. [District Rule 1080]
65. Upon notice by the District that the facility's CERMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CERMS data is sent to the District by a District-approved alternative method. [District Rule 1080]
66. The permittee shall maintain the following records for CERMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CERMS was inoperative. [District Rule 1080]

67. The owner or operator shall maintain records of NO_x emissions and submit a written report each calendar quarter to the District containing the following information for each operating day: (1) Calendar date; (2) The average hourly NO_x emission rate (expressed as NO₂, lb/hr) measured at the exhaust of each RTO; (3) The total average hourly NO_x emission rate (expressed as NO₂, lb/hr) for all three RTOs using average hourly NO_x emission rate at the exhaust of each RTO (item 2); (4) The total daily NO_x emission rates (lb/day) calculated at the end of each operating day from the measured total average hourly NO_x emission rates; (5) The total monthly NO_x emission rate (lb/month) calculated at the end of each month using total daily NO_x emissions rate; (6) The total annual NO_x emission rate (lb/year, on a rolling 12-month basis) calculated at the end of each month using total monthly NO_x emission rate; (7) Identification of the operating days when the calculated total hourly average NO_x emission rates are in excess of the permitted NO_x emissions, with the reasons for such excess emissions as well as a description of corrective actions taken; (8) Identification of the operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (9) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding such data; (10) Identification of each parameter used in calculations; (11) Identification of the times when the pollutant concentration exceeded full span of the CERMS; (12) Description of any modifications to the CERMS that could affect the ability of the CERMS to comply with Performance Specification 6; (13) Results of daily CERMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (14) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080 and 2201]
68. The owner or operator may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 2201]
69. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]
70. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081]
71. The owner or operator shall notify the District of any breakdown condition (as defined in section 3.1 of District Rule 1100) as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
72. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]
73. The owner or operator shall maintain daily records of the following items: (1) date, (2) name of the pet food recipe being produced, (3) RTO temperature monitoring data, (4) fresh meat injection rate, excluding moisture, into the steam conditioner (tons/day), (5) the combined amount of finished product produced by all pet food manufacturing lines (N-8234-4, '-5 and '-6, tons/day), (6) amount of finished product produced by this line (tons/day); the combined amount of finished product produced by all pet food manufacturing lines (N-8234-4, '-5 and '-6, tons/day) may be used to demonstrate compliance with the amount of finished product produced by this line (tons/day), (7) heat input rate to each RTO, in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period, (8) combined total heat input rate to all three RTOs in MMBtu/year on a rolling 12 consecutive month period, (9) combined process and combustion NO_x emissions at the exhaust of each RTO (including the contribution of dryer NO_x emissions) in lb/day and lb/year on a rolling 12 consecutive month period, and (10) combined process and combustion NO_x emissions at the exhaust of all three RTOs (including the contribution of NO_x emissions from dryers) in lb/year on a rolling 12 consecutive month period. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

74. Each RTO system (i.e., RTO, duct work, sensors, and other equipment) shall be installed, operated, and maintained per the manufacturer's (vendor) recommendations. A copy of manufacturer's recommendations shall be kept on site at all times. [District Rule 2201]
75. The owner or operator shall maintain all records of maintenance for each RTO system including date, RTO identification, reason for the maintenance, description of the maintenance activity, name of the individual performing the inspection and company affiliation. [District Rules 2201 and 4102]
76. All records shall be maintained and retained on-site for minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 2201 and 4309]

AUTHORITY TO CONSTRUCT

PERMIT NO: N-8234-6-12

ISSUANCE DATE: 12/29/2020

LEGAL OWNER OR OPERATOR: DIAMOND PET FOOD PROCESSORS OF RIPON

MAILING ADDRESS: 942 S STOCKTON AVE
RIPON, CA 95366

LOCATION: 942 S STOCKTON AVE
RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD PROCESSING LINE #3: INSTALL THREE DURR SYSTEMS, INC. ECOPURE RL-60 REGENERATIVE THERMAL OXIDIZERS (RTO) AND ASSOCIATED DUCT WORK TO TREAT LADEN AIR DISCHARGE FROM WET CYCLONE, DRYER & DRYER-COOLER, AND VERTICAL COOLER STACKS UNDER PERMITS N-8234-4, '-5 AND '-6, REMOVE COLD PLASMA INJECTION SYSTEMS AND ODORANT INJECTION SYSTEMS, AND MAKE CHANGES TO THE EXISTING REQUIREMENTS TO MATCH "AS-BUILT" PLANT CONFIGURATION, REVISE THE NOX, CO AND PM10 EMISSIONS LIMIT, REVISE THE HEAT INPUT RATE FOR EACH RTO, AND INSTALL A CONTINUOUS EMISSIONS RATE MONITORING SYSTEM (CERMS) TO MONITOR AND RECORD NOX EMISSIONS RATE AT THE EXHAUST STACK OF EACH RTO

CONDITIONS

1. Authority to Construct N-8234-6-10 shall be cancelled upon implementation of this Authority to Construct permit. [District Rule 2201]
2. Within 12 months from the date of the issuance of this permit, the permittee shall either submit an application to comply with Rule 2520 (Federally Mandated Operating Permits) or shall comply with District Rule 2530 (Federally Enforceable Potential to Emit). If the facility chooses the option to comply with District Rule 2530, the facility shall notify the District by submitting a request to include the District Rule 2530 conditions on their permits to operate prior to the 12-month deadline. [District Rule 2520]
3. Prior to operating equipment under this Authority to Construct N-8234-4-12, N-8234-5-12 and N-8234-6-12, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 5,008 lb, 2nd quarter - 5,008 lb, 3rd quarter - 5,008 lb, and fourth quarter - 5,009 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Samir Sheikh, Executive Director / APCO



Arnaud Marjolle, Director of Permit Services

N-8234-6-12 : Dec 29 2020 9:09AM -- KAHLOUJ : Joint Inspection NOT Required

4. ERC Certificate Number N-1525-2 (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]
5. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. Particulate matter, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
7. All exhaust stacks under this permit shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
8. 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]
9. Material Dispensing, Kibble Manufacturing, and Conveying Systems: The material from the extruder surge bin is dispensed into an extruder bin from where the material is transferred into an EXTRU-TECH 24X144 steam-conditioner system. The material is extruded to form kibbles. The kibbles are pneumatically conveyed using HEPA filtered air into a dryer receiving chamber using HORIZON SYSTEMS HT-68 high volume cyclone. The owner or operator shall install and maintain a duct work to discharge exhaust from the wet cyclone (Horizon HT-68) into the duct connected to the RTO. [District Rules 2201 and 4201]
10. Dryer System: The system consists of an EXTRU-TECH 1053-2P-AF11, 10 MMBtu/hr (total) direct-fired natural gas fired dryer with five drying sections, each section is equipped with an ECLIPSE WINNOX WX0200 burner with a maximum heat input rate of 2.0 MMBtu/hr. The dryer exhaust is vented to a MAC HE60 high efficiency cyclone. The owner or operator shall install and maintain a duct work to discharge exhaust from the dryer cyclone (MAC HE60) into the duct connected to the RTO. [District Rules 2201 and 4102]
11. Cooler and Conveying System: The system consists of three cooler sections, all vented to a MAC high efficiency cyclone, a discharge conveyor for the transfer of dried kibbles into a hopper. The material from the hopper is pneumatically conveyed to an enclosed shaker screener. The owner or operator shall install and maintain a duct work to re-circulate the exhaust from the dryer cooler cyclone (MAC) into the Dryer System. [District Rules 2201 and 4102]
12. Fines Collection and Conveying System: This system collects fines from two locations in the dryer, the dryer cyclone discharge, and the cooler cyclone discharge, and vents these fines to a HORIZON SYSTEMS 28S WRDL8 baghouse. This baghouse is vented indoors. [District Rule 2201]
13. Screening and Conveying System. The system consists of an enclosed shaker screener, an enclosed surge bin, and an enclosed weigh belt. The fines (rejects) are dropped to the dumpsters. [District Rule 2201]
14. Coating and Conveying System: The system consists of a hopper where material from a weight belt is sprayed with chicken fat and canola oil (or other similar ingredients) and a coating reel where dry dog/cat digest and probiotics (or other similar ingredients) are sprinkled to be absorbed into the kibbles. The kibbles are then conveyed pneumatically to a vertical cooler system using a filter receiver system with a static sock filter. [District Rule 2201]
15. Vertical Cooler and Conveying System: A vertical cooler vented to a MAC HE52 high efficiency cyclone. The dried material falls on a vibratory pan on sliding rails. The material (accepts) from the vibratory pan drops into a hopper from where the dried kibbles are pneumatically conveyed to the finished product bins. Each bin shall be vented to a static sock filter. The fines (rejects) from MAC HE52 cyclone discharge and vibratory pan are conveyed to a barrel. The owner or operator shall install and maintain a duct work to discharge exhaust from the vertical cooler cyclone (MAC HE 52) into the duct connected to the RTO. [District Rules 2201 and 4102]
16. The owner or operator shall install, operate and maintain three identical Durr Systems, Inc.'s Ecopure RL-60 regenerative thermal oxidizers (RTO) each equipped with 7.7 MMBtu/hr burner, associated duct work and control equipment, to abate pet food odors and reduce VOC emissions from all pet food manufacturing lines discharge stacks (wet cyclone (Horizon HT-68), dryer cyclone (MAC HE60) and vertical cooler cyclone (MAC HE52)). [District Rules 2201 and 4102]
17. Each RTO shall be equipped with non-resettable fuel flow meter(s) to measure natural gas fuel flow into each RTO. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

18. Each RTO's combustion chamber temperature shall be maintained at or above 1650 degrees Fahrenheit whenever odor abatement is occurring in the specific RTO. [District Rule 2201]
19. Each RTO's chamber shall be permanently equipped with temperature measurement devices to determine the average combustion chamber temperature. The combustion temperature shall be continuously monitored and recorded at least every 15-minutes whenever odor abatement is occurring in the specific RTO. The recorded temperature data shall be averaged over a 30-consecutive-minute block to demonstrate compliance with the established RTO combustion chamber temperature. 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]
20. Visible emissions, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.) shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
21. The dryer and RTO(s) shall only be fired on PUC-quality natural gas. [District Rule 2201]
22. PM10 emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.0306 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
23. The post control VOC emissions from the operations (not including natural gas combustion in the RTO) covered under this permit shall not exceed 0.005 pounds per ton of finished material produced. This emission limit includes process emissions, as well as, emissions from the natural gas combustion in the dryer. [District Rule 2201]
24. No more than 36 tons of fresh meat, excluding moisture, shall be injected into the steam-conditioner in any one day. [District Rule 2201]
25. The amount of finished product produced under this line shall not exceed 780 tons in any one day. [District Rule 2201]
26. The combined amount of finished product produced through all pet food manufacturing lines (N-8234-4, '-5 and '-6) shall not exceed 780 tons in any one day. [District Rule 2201]
27. Emissions from the dryer shall not exceed any of the following limits: 2.1 ppmvd NOx @ 19% O2 (0.024 lb-NOx/MMBtu), 16.5 ppmvd CO @ 19% O2 (0.112 lb-CO/MMBtu) and 0.00285 lb-SOx/MMBtu. [District Rules 2201 and 4309]
28. The RTO(s) shall reduce the VOC emissions (not including VOC emissions from natural gas combustion in the RTO) from pet food manufacturing operations by at least 95% (by weight). [District Rule 2201]
29. The total NOx emissions from the three RTO unit system and three dryers combined shall not exceed any of the following limits: 8.343 lb/hr and 200.4 lb/day and 33,639 lb/yr (12-month rolling basis). Compliance with these mass emission rates shall be demonstrated using NOx (ppmvd) and exhaust gas flow rate (Q, dry standard cubic feet per minute, dscfm) data recorded by the CERMS, according to the following equation: Emissions (lb/hr) = (NOx ppmvd x 46 lb/lb-mol x 60 min/hr x Q (dscfm)) ÷ (379.5 dscf/lb-mol x 1000,000). Daily emissions for each RTO shall be calculated by summing the hourly emissions for the respective calendar day. Hourly or daily emissions data shall be used to calculate monthly emissions. Monthly data shall be used to calculate rolling 12-month totals. [District Rule 2201]
30. Emissions due to natural gas combustion in each RTO shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 0.88 lb-CO/MMBtu and 0.0055 lb-VOC/MMBtu. [District Rule 2201]
31. Heat input rate to each RTO shall not exceed any of the following limits: 184.8 MMBtu/day and 67,082 MMBtu/year (12-month rolling total). [District Rule 2201]
32. Combined total heat input rate to all three RTOs shall not exceed 156,816 MMBtu/year (12-month rolling total). [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

33. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ of the dryer (at the exhaust stack of the MAC HE60 cyclone, upstream of the duct collecting discharge from other process streams), at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]
34. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4309]
35. If either the dryer NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309]
36. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]
37. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
38. 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]
39. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rules 2201 and 4309]
40. 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 2201 and 4309]
41. Source testing to determine NO_x and CO emissions from the dryer at the exhaust stack of the MAC HE60 cyclone by obtaining samples upstream of the duct collecting discharge from other process streams shall be conducted at least once every 24 months. [District Rule 4309]
42. All dryer test results for NO_x and CO shall be reported in ppmv @ 19% O₂ (or no correction if measured above 19% O₂), corrected to dry stack conditions. [District Rule 4309]
43. Source testing to measure steady state NO_x emissions at the exhaust of each RTO system shall be conducted within 60 days of initial startup under this permit and at least once every 24 months thereafter. All RTOs shall be operated and tested simultaneously while treating exhaust stream from the pet food manufacturing lines. Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
44. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 2201 and 4309]

CONDITIONS CONTINUE ON NEXT PAGE

45. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201 and 4309]
46. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201 and 4309]
47. Stack gas velocity or volumetric flow rate shall be determined using EPA Methods 2, 2A, or 2D. [District Rule 2201]
48. For VOC source testing, one RTO system inlet and outlet may be sampled to determine compliance with various emission limits (i.e., VOC control efficiency, VOC emission limit) in this permit. The testing results may be substituted for the other RTO systems instead of sampling each RTO system. Failure to comply with any emission limit in this permit shall constitute violation of permits N-8234-4, '-5 and '-6. [District Rule 2201]
49. Source testing shall be conducted during an operating configuration representative of normal operations by selecting pet food recipe(s) that can be made continuously throughout the testing without any process interruptions or delays. Each pet food manufacturing line must be operated at or above 90% of the maximum hourly process rate of the chosen recipe. The pet food recipe chosen shall include at least 3% (by weight) of fresh meat. If multiple pet food lines are operated during the test, the operator must utilize the average production rate (tons of finished product produced) to demonstrate compliance with VOC emission limits (pounds per ton of finished product produced). [District Rule 2201 and 4102]
50. Source testing to determine compliance with process VOC emission limit (0.005 lb/ton of finished product produced) and VOC control efficiency (95% by weight) of the RTO shall be conducted at least once every twelve months. After demonstrating compliance on two consecutive annual source tests, 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]
51. The process VOC emissions shall be calculated as follows: $VOC (lb/hr) = VOC_{inlet} \text{ of the RTO } (lb/hr) - VOC_{outlet} \text{ of the RTO } (lb/hr)$. $VOC_{outlet} \text{ of the RTO } (lb/hr) = VOC_{measured} \text{ at the outlet of RTO } (lb/hr) - VOC_{natural} \text{ gas combustion in the RTO } (lb/hr)$. The resulting emissions shall be translated into lb/ton basis using the actual average hourly pet food production rate(s). Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
52. A presurvey must be done prior to source testing to determine VOC compound analytes present in the effluent streams from wet cyclone, dryer cyclone, and vertical cooler cyclone using the methodology described in EPA Method 18, Section 16. 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, or 308. 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 an appropriate compound, with the balance being scaled to the relative mole fraction of other the 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 be approved by the District. Upon approval from District's Compliance Division, data collected during previous presurveys of various effluent streams may be used to identify VOC compound analytes present in various effluent streams. [District Rule 2201]
53. The District may, at its discretion, require NO_x, CO, VOC and PM₁₀ source testing and odor panel testing at any time should conditions at the facility surrounding areas warrants such testing. [District Rules 2201 and 4201]
54. During each source test, the owner or operator shall keep track of all parameters that are used in demonstrating compliance with the limits in this permit, including, but not limited to: (1) date, (2) identification of pet food lines that are operated, (3) name of each recipe being produced, (4) amount of fresh meat injection rate, excluding moisture, into the steam-conditioner, (5) actual processing rate of finished product produced, tons/hour, (6) maximum hourly processing rate, tons/hour, for each recipe being produced, (7) RTO chamber temperature data (degrees Fahrenheit), (8) actual amount of fuel combusted in the dryer(s), (9) actual amount of fuel combusted in the RTO, and (10) CERMS data. [District Rules 2201 and 4102]
55. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

CONDITIONS CONTINUE ON NEXT PAGE

56. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Rate Monitoring System (CERMS) which continuously measures and records the exhaust gas NO_x concentrations and exhaust flow rate, at the exhaust stack of each RTO system. CERMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CERMS passes the relative accuracy requirement specified herein during startups and shutdowns periods. If relative accuracy of CERMS cannot be demonstrated during startup or shutdown periods, CERMS results during startup and shutdown events shall be replaced with startup emission rates obtained during the previous NO_x source testing conducted on January 24, 2019. [District Rules 1080 and 2201]
57. The CERMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080 and 2201]
58. The CERMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 for CEMS and Part 60, Appendix B Performance Specification 6 (PS6), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080 and 2201]
59. In accordance with 40 CFR Part 60, Appendix F, NO_x monitor must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080 and 2201]
60. The owner/operator shall perform a RATA for NO_x (as specified in 40 CFR Part 60, Appendix F) and flow rate sensor at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CERMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F for CEMS equipment. [District Rules 1080 and 2201]
61. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080 and 2201]
62. The CERMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080 and 2201]
63. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CERMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]
64. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CERMS data polling software system and shall make CERMS data available to the District's automated polling system on a daily basis. [District Rule 1080]
65. Upon notice by the District that the facility's CERMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CERMS data is sent to the District by a District-approved alternative method. [District Rule 1080]
66. The permittee shall maintain the following records for CERMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CERMS was inoperative. [District Rule 1080]

67. The owner or operator shall maintain records of NO_x emissions and submit a written report each calendar quarter to the District containing the following information for each operating day: (1) Calendar date; (2) The average hourly NO_x emission rate (expressed as NO₂, lb/hr) measured at the exhaust of each RTO; (3) The total average hourly NO_x emission rate (expressed as NO₂, lb/hr) for all three RTOs using average hourly NO_x emission rate at the exhaust of each RTO (item 2); (4) The total daily NO_x emission rates (lb/day) calculated at the end of each operating day from the measured total average hourly NO_x emission rates; (5) The total monthly NO_x emission rate (lb/month) calculated at the end of each month using total daily NO_x emissions rate; (6) The total annual NO_x emission rate (lb/year, on a rolling 12-month basis) calculated at the end of each month using total monthly NO_x emission rate; (7) Identification of the operating days when the calculated total hourly average NO_x emission rates are in excess of the permitted NO_x emissions, with the reasons for such excess emissions as well as a description of corrective actions taken; (8) Identification of the operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (9) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding such data; (10) Identification of each parameter used in calculations; (11) Identification of the times when the pollutant concentration exceeded full span of the CERMS; (12) Description of any modifications to the CERMS that could affect the ability of the CERMS to comply with Performance Specification 6; (13) Results of daily CERMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (14) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080 and 2201]
68. The owner or operator may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 2201]
69. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]
70. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081]
71. The owner or operator shall notify the District of any breakdown condition (as defined in section 3.1 of District Rule 1100) as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
72. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]
73. The owner or operator shall maintain daily records of the following items: (1) date, (2) name of the pet food recipe being produced, (3) RTO temperature monitoring data, (4) fresh meat injection rate, excluding moisture, into the steam conditioner (tons/day), (5) the combined amount of finished product produced by all pet food manufacturing lines (N-8234-4, '-5 and '-6, tons/day), (6) amount of finished product produced by this line (tons/day); the combined amount of finished product produced by all pet food manufacturing lines (N-8234-4, '-5 and '-6, tons/day) may be used to demonstrate compliance with the amount of finished product produced by this line (tons/day), (7) heat input rate to each RTO, in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period, (8) combined total heat input rate to all three RTOs in MMBtu/year on a rolling 12 consecutive month period, (9) combined process and combustion NO_x emissions at the exhaust of each RTO (including the contribution of dryer NO_x emissions) in lb/day and lb/year on a rolling 12 consecutive month period, and (10) combined process and combustion NO_x emissions at the exhaust of all three RTOs (including the contribution of NO_x emissions from dryers) in lb/year on a rolling 12 consecutive month period. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

74. Each RTO system (i.e., RTO, duct work, sensors, and other equipment) shall be installed, operated, and maintained per the manufacturer's (vendor) recommendations. A copy of manufacturer's recommendations shall be kept on site at all times. [District Rule 2201]
75. The owner or operator shall maintain all records of maintenance for each RTO system including date, RTO identification, reason for the maintenance, description of the maintenance activity, name of the individual performing the inspection and company affiliation. [District Rules 2201 and 4102]
76. All records shall be maintained and retained on-site for minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 2201 and 4309]

Appendix C
Pre and Post Project Potential to Emit for N-8234-2 and '-3

PET FOOD MATERIAL PET FOOD MATERIAL DISPENSING AND CONVEYING OPERATIONS

Item	Source Operation/Emissions Unit	EF (Uncontrolled) lb-PM ₁₀ /ton	Capture %	Control %	EF (Controlled) lb-PM ₁₀ /ton	Throughput tons/day	PE2 lb/day	Source of EF comments
1	material dispensing (enclosed) from silos (S1, S2, S3, west) into an enclosed drag conveyor A-1	--	--	--	4.60E-05	100	0.005	EPA's AP-42 Table 11.19.2-2, conveyor transfer point, controlled
2	material dispensing (enclosed) from silos (S1, S2, S3) into an enclosed drag conveyor A-2	--	--	--	4.60E-05	100	0.005	same as item 1
3	material dispensing from bins (OB1 to OB6) into pre-grind hammer mill hopper, or belt conveyor C or D	--	--	--	4.60E-05	400	0.018	same as item 1
7	material transfer from the enclosed drag conveyor A1, A2 to the enclosed transfer belt C	--	--	--	4.60E-05	400	0.018	same as item 1
8	material transfer from drag conveyor A1, A2 to transfer belt D	--	--	--	4.60E-05	400	0.018	same as item 1
9	material dispensing from silos (S1, S2, S3, east) into drag conveyor A-3	--	--	--	4.60E-05	100	0.005	same as item 1
10	material dispensing from silos (S1, S2, S3, east) into drag conveyor A-4 via diverters	--	--	--	4.60E-05	100	0.005	same as item 1
11	material dispensing from bins (OB7 to OB12) into drag conveyor A-3 via diverters	--	--	--	4.60E-05	100	0.005	same as item 1
12	material dispensing from bins (OB7 to OB12) into drag conveyor A-4 via diverters	--	--	--	4.60E-05	100	0.005	same as item 1

PET FOOD MATERIAL PET FOOD MATERIAL DISPENSING AND CONVEYING OPERATIONS

Item	Source Operation/Emissions Unit	EF (Uncontrolled)	Capture	Control	EF (Controlled)	Throughput tons/day	PE2 lb/day	Source of EF comments
		lb-PM ₁₀ /ton	%	%	lb-PM ₁₀ /ton			
13	material transfer from drag conveyor A-3, A-4 to transfer belt C	--	--	--	4.60E-05	100	0.005	same as item 1
14	material transfer from drag conveyor A-3, A-4 to transfer belt D	--	--	--	4.60E-05	100	0.005	same as item 1
15	material transfer from the transfer belt C to a bucket elevator (leg #3) vented to a dust collector (Horizon)	--	--	--	4.60E-05	400	0.018	same as item 1
16	material transfer from the transfer belt D to a bucket elevator (leg #4) vented to a dust collector (Horizon)	--	--	--	4.60E-05	400	0.018	same as item 1
17	material transfer from an elevator (leg #3) into surge bins in the mill tower, each bin served by its own dust collector	--	--	--	4.60E-05	400	0.018	same as item 1
18	material transfer from an elevator (leg #4) into surge bins in the mill tower, each bin served by its own dust collector	--	--	--	4.60E-05	400	0.018	same as item 1
19	storage bins, each bin served by its own dust collector	0.0063	100%	99%	6.3E-05	800	0.05	EPA's AP-42 Table 9.9.1-1 (3/03), storage bin vent
						Total:	0.2	lb/day
					EF (material conveying and transfer):		0.00025	lb-PM₁₀/ton

PET FOOD MATERIAL DISPENSING AND CONVEYING OPERATIONS

Item	Source Operation/Emissions Unit	EF (Uncontrolled)	Capture	Control	EF (Controlled)	Throughput	PE2	Source of EF
		lb-PM ₁₀ /ton	%	%	lb-PM ₁₀ /ton	tons/day	lb/day	comments
1	material dispensing (enclosed) from silos (S4, S5, S6 , East) in Area A into reversible screw conveyors	--	--	--	4.60E-05	275	0.013	EPA's AP-42 Table 11.19.2-2, conveyor transfer point, controlled
2	material dispensing (enclosed) from reversible screw conveyors to drag conveyor A3 or A4	--	--	--	4.60E-05	275	0.013	same as item 1
3	material transfer from drag conveyors A3 or A4 to belt drag conveyor C	--	--	--	4.60E-05	275	0.013	same as item 1
4	material dispensing (enclosed) from silos (S1, S2, S3, West) in Area B into reversible screw conveyors	--	--	--	4.60E-05	275	0.013	same as item 1
5	material dispensing (enclosed) from reversible screw conveyors to drag conveyor A1 or A2	--	--	--	4.60E-05	275	0.013	same as item 1
6	material transfer from drag conveyors A1 or A2 to belt drag conveyor D	--	--	--	4.60E-05	275	0.013	same as item 1
7	material dispensing from bins (OB4 to OB6 OB7 to OB12 , East) Area A into belt drag conveyor C	--	--	--	4.60E-05	275	0.013	same as item 1
8	material transfer from enclosed transfer belt drag conveyor C to enclosed bucket elevator (leg #3) vented to dust collector (Horizon)	--	--	--	4.60E-05	550	0.025	same as item 1
9	material dispensing from bins (OB7 to OB12 OB1 to OB6 , West) Area B into belt drag conveyor C or D	--	--	--	4.60E-05	275	0.013	same as item 1

PET FOOD MATERIAL DISPENSING AND CONVEYING OPERATIONS

Item	Source Operation/Emissions Unit	EF (Uncontrolled)	Capture	Control	EF (Controlled)	Throughput tons/day	PE2	Source of EF comments
		lb-PM ₁₀ /ton	%	%	lb-PM ₁₀ /ton		lb/day	
10	material transfer from enclosed transfer belt drag conveyor C or D to enclosed bucket elevator (leg #4) vented to dust collector (Horizon)	--	--	--	4.60E-05	550	0.025	same as item 1
11	material transfer from an elevator (leg #3) into surge bins distributor surge bins in the mill tower A, each distributor bin served by its own dust collector	--	--	--	4.60E-05	550	0.025	same as item 1
12	material transfer from an elevator (leg #4) into surge bins distributor surge bins in the mill tower each distributor bin served by its own dust collector	--	--	--	4.60E-05	550	0.025	same as item 1
13	storage bins, each bin served by its own dust collector	0.0063	100%	99%	6.3E-05	1,100	0.069	EPA's AP-42 Table 9.9.1-1 (3/03), storage bin vent
						Total:	0.300	lb/day
						EF (material conveying and transfer):	0.00027	lb-PM₁₀/ton

PET FOOD MATERIAL DISPENSING, MIXING, GRINDING, EXTRUSION SURGE BINS, AND ASSOCIATED CONVEYING OPERATIONS

Item	Source Operation/Emissions Unit	EF (Uncontrolled)	Capture	Control	EF (Controlled)	Throughput	PE2	Source of EF
		lb-PM ₁₀ /ton	%	%	lb-PM ₁₀ /ton	tons/day	lb/day	comments
1	material dispensing from mill tower bins into a hopper (Scale 1) vented to a dust collector	--	--	--	4.60E-05	200	0.009	EPA's AP-42 Table 11.19.2-2, conveyor transfer point, controlled
2	material dispensing from mill tower bins into a hopper (Scale 2) vented to a dust collector	--	--	--	4.60E-05	200	0.009	same as item 1
3	material dispensing from mill tower bins into a hopper (Scale 3) vented to a dust collector	--	--	--	4.60E-05	200	0.009	same as item 1
4	material dispensing from mill tower bins into a hopper (Scale 4) vented to a dust collector	--	--	--	4.60E-05	200	0.009	same as item 1
5	enclosed material transfer from the hoppers (scale 1, 2, 3 and 4) into a 6 ton dual ribbon mixer and surge bin vented to a bin vent filter	--	--	--	4.60E-05	800	0.037	same as item 1
6	enclosed material transfer (without drop) from the mixer surge bin to an enclosed screw conveyor	--	--	--	--	--	--	--
7	material transfer from the enclosed screw conveyor to another enclosed screw conveyor vented to a dust collector	--	--	--	4.60E-05	800	0.037	same as item 1
8	material transfer from the screw conveyor into an elevator in the grinding area	--	--	--	4.60E-05	800	0.037	same as item 1
9	material transfer from the elevator into a transfer auger, and or item 18	--	--	--	4.60E-05	800	0.037	same as item 1
10	material transfer from the elevator into a turnhead that services 4 unloading bins served by dust collector system	0.0078	100%	99%	7.80E-05	800	0.062	EPA's AP-42, Table 9.9.1-1 (3/03), grain receiving hopper truck/railcar.

PET FOOD MATERIAL DISPENSING, MIXING, GRINDING, EXTRUSION SURGE BINS, AND ASSOCIATED CONVEYING OPERATIONS

Item	Source Operation/Emissions Unit	EF (Uncontrolled)	Capture	Control	EF (Controlled)	Throughput	PE2	Source of EF
		lb-PM ₁₀ /ton	%	%	lb-PM ₁₀ /ton	tons/day	lb/day	comments
11	material in 4 bins loaded into a hopper with drop sock filter for truck loading	0.0008	--	--	0.0008	800	0.640	EPA's AP-42 Table 9.9.1-2 (3/03)
12	material transfer from the transfer auger into a surge bin for hammer mill 1	--	--	--	--	--	--	included in item 13
13	surge bin for hammermill 1 vented to a dust collector	0.0063	100%	99%	6.3E-05	275	0.017	EPA's AP-42 Table 9.9.1-1 (3/03), storage bin vent
14	material transfer from the transfer auger into a surge bin for hammer mill 2	--	--	--	--	--	--	included in item 15
15	surge bin for hammermill 2 vented to a dust collector	0.0063	100%	99%	6.3E-05	275	0.017	same as item 13
16	material transfer from the transfer auger into a surge bin for hammer mill 3	--	--	--	--	--	--	included in item 17
17	surge bin for hammermill 3 vented to a dust collector	0.0063	100%	99%	6.3E-05	266	0.017	same as item 13
18	material transfer from the transfer auger into a surge bin for hammer mill 3	--	--	--	--	--	--	included in item 19
19	surge bin for hammermill 3 vented to a dust collector	0.0063	100%	99%	6.3E-05		0.000	same as item 13
20	hammermill plenum 1 served by a baghouse	--	--	--	0.021	266	5.586	EF proposal; test conducted on 9/11/12; test results are 0.020/0.015/0.021 (0.019 avg.)
21	enclosed shaker screens 1 served by a cartridge dust collector	0.0087	100%	99%	8.7E-05	266	0.023	EPA's AP-42 Table 11.19.2-2, screening, uncontrolled

PET FOOD MATERIAL DISPENSING, MIXING, GRINDING, EXTRUSION SURGE BINS, AND ASSOCIATED CONVEYING OPERATIONS

Item	Source Operation/Emissions Unit	EF (Uncontrolled)	Capture	Control	EF (Controlled)	Throughput	PE2	Source of EF
		lb-PM ₁₀ /ton	%	%	lb-PM ₁₀ /ton	tons/day	lb/day	comments
22	hammermill plenum 2 served by a baghouse	--	--	--	0.021	266	5.586	same as item 18
23	enclosed shaker screens 2 served by a cartridge dust collector	0.0087	100%	99%	8.7E-05	266	0.023	same as item 19
24	hammermill plenum 3 served by a baghouse	--	--	--	0.021	266	5.586	same as item 18
25	enclosed shaker screens 3 served by a cartridge dust collector	0.0087	100%	99%	8.7E-05	266	0.023	same as item 19
26	material transfer from the screen 1 to an associated hopper	--	--	--	4.60E-05	266	0.012	same as item 1
27	material transfer from the screen 2 to an associated hopper 2	--	--	--	4.60E-05	266	0.012	same as item 1
28	material transfer from the screen 3 to an associated hopper 3	--	--	--	4.60E-05	266	0.012	same as item 1
29	pneumatic material transfer from hopper 1 to paired extruder surge bins 1 served by a dust collector	--	--	--	--	--	--	Included in item 30
30	paired extruder surge bins 1 served by a dust collector	0.0063	100%	99%	6.3E-05	266	0.017	same as item 13
31	pneumatic material transfer from hopper 2 to paired extruder surge bins 2 served by a dust collector	--	--	--	--	--	--	Included in item 30
32	paired extruder surge bins 2 served by a dust collector	0.0063	100%	99%	6.3E-05	266	0.017	same as item 13
33	pneumatic material transfer from hopper 3 to paired extruder surge bins 3 served by a dust collector	--	--	--	--	--	--	Included in item 32

PET FOOD MATERIAL DISPENSING, MIXING, GRINDING, EXTRUSION SURGE BINS, AND ASSOCIATED CONVEYING OPERATIONS

Item	Source Operation/Emissions Unit	EF (Uncontrolled)	Capture	Control	EF (Controlled)	Throughput	PE2	Source of EF
		lb-PM ₁₀ /ton	%	%	lb-PM ₁₀ /ton	tons/day	lb/day	comments
34	paired extruder surge bins 3 served by a dust collector	0.0063	100%	99%	6.3E-05	266	0.017	same as item 13
35	material transfer from extruder surge bins 1 to an enclosed screw conveyor 1	--	--	--	4.60E-05	266	0.012	same as item 1
36	material transfer from extruder surge bins 2 to an enclosed screw conveyor 2	--	--	--	4.60E-05	266	0.012	same as item 1
37	material transfer from extruder surge bins 3 to an enclosed screw conveyor 3	--	--	--	4.60E-05	266	0.012	same as item 1
38	material transfer from enclosed screw conveyor 1 to extruder surge bins 1	--	--	--	4.60E-05	266	0.012	same as item 1
39	material transfer from enclosed screw conveyor 2 to extruder surge bins 2	--	--	--	4.60E-05	266	0.012	same as item 1
40	material transfer from enclosed screw conveyor 3 to extruder surge bins 3	--	--	--	4.60E-05	266	0.012	same as item 1
						Total:	17.9	
						EF - Hammermills	0.021	lb-PM10/ton
						EF - Truck loadout:	0.0009	lb-PM10/ton
						EF-material handling & transfer:	0.00050	lb-PM10/ton

PET FOOD MATERIAL DISPENSING, MIXING, GRINDING, EXTRUSION SURGE BINS, AND ASSOCIATED CONVEYING OPERATIONS

Item	Source Operation/Emissions Unit	EF (Uncontrolled)	Capture	Control	EF (Controlled)	Throughput	PE2	Source of EF
		lb-PM ₁₀ /ton	%	%	lb-PM ₁₀ /ton	tons/day	lb/day	comments
1	material dispensing from mill tower bins into a hopper (Scale 1) vented to a dust collector.	--	--	--	4.60E-05	275	0.013	EPA's AP-42 Table 11.19.2-2, conveyor transfer point, controlled
2	material dispensing from mill tower bins into a hopper (Scale 2) vented to a dust collector.	--	--	--	4.60E-05	275	0.013	same as item 1
3	material dispensing from mill tower bins into a hopper (Scale 3) vented to a dust collector.	--	--	--	4.60E-05	275	0.013	same as item 1
4	material dispensing from mill tower bins into a hopper (Scale 4) vented to a dust collector.	--	--	--	4.60E-05	275	0.013	same as item 1
5	enclosed material transfer from the hoppers (scale 1, 2, 3 and 4) into a 6 ton dual ribbon mixer and surge bin vented to a bin vent filter	--	--	--	4.60E-05	1100	0.051	same as item 1
6	enclosed material transfer (without drop) from the mixer surge bin to an enclosed screw conveyor.	--	--	--	--	--	--	--
8	material transfer from the screw-drag conveyor into an elevator in the grinding area	--	--	--	4.60E-05	1,100	0.051	same as item 1
9	material transfer from the elevator into a transfer auger, and or item 18	--	--	--	4.60E-05	1,100	0.051	same as item 1
10	material transfer from the elevator into a turnhead that services 4 unloading bins served by dust collector system	0.0078	100%	99%	7.80E-05	800	0.062	EPA's AP-42, Table 9.9.1-1 (3/03), grain receiving hopper truck/railcar.
11	material in 4 bins loaded into a hopper with drop sock filter for truck loading	0.0008	--	--	0.0008	800	0.640	EPA's AP-42 Table 9.9.1-2 (3/03)

PET FOOD MATERIAL DISPENSING, MIXING, GRINDING, EXTRUSION SURGE BINS, AND ASSOCIATED CONVEYING OPERATIONS

Item	Source Operation/Emissions Unit	EF (Uncontrolled)	Capture	Control	EF (Controlled)	Throughput	PE2	Source of EF
		lb-PM ₁₀ /ton	%	%	lb-PM ₁₀ /ton	tons/day	lb/day	comments
12	material transfer from the transfer auger into a surge bin for hammer mill 1	--	--	--	--	--	--	included in item 13
13	surge bin for hammermill 1 vented to a dust collector	0.0063	100%	99%	6.3E-05	275	0.017	EPA's AP-42 Table 9.9.1-1 (3/03), storage bin vent
14	material transfer from the transfer auger into a surge bin for hammer mill 2	--	--	--	--	--	--	included in item 15
15	surge bin for hammermill 2 vented to a dust collector	0.0063	100%	99%	6.3E-05	275	0.017	same as item 13
16	material transfer from the transfer auger into a surge bin for hammer mill 3	--	--	--	--	--	--	included in item 17
17	surge bin for hammermill 3 vented to a dust collector	0.0063	100%	99%	6.3E-05	275	0.017	same as item 13
20	material transfer from the transfer auger into a surge bin for hammer mill 4	--	--	--	--	--	--	included in item 19
21	surge bin for hammermill 4 vented to a dust collector	0.0063	100%	99%	6.3E-05	275	0.017	same as item 13
22	hammermill plenum 1 served by a baghouse	--	--	--	0.021	275	5.775	EF proposal; test conducted on 9/11/12; test results are 0.020/0.015/0.021 (0.019 avg, lb-PM10/ton of material processed)
24	hammermill plenum 2 served by a baghouse	--	--	--	0.021	275	5.775	same as item 22
26	hammermill plenum 3 served by a baghouse	--	--	--	0.021	275	5.775	same as item 22
31	hammermill plenum 4 served by a baghouse	--	--	--	0.021	275	5.775	same as item 22

PET FOOD MATERIAL DISPENSING, MIXING, GRINDING, EXTRUSION SURGE BINS, AND ASSOCIATED CONVEYING OPERATIONS

Item	Source Operation/Emissions Unit	EF (Uncontrolled)	Capture	Control	EF (Controlled)	Throughput	PE2	Source of EF
		lb-PM ₁₀ /ton	%	%	lb-PM ₁₀ /ton	tons/day	lb/day	comments
32	pneumatic material transfer from hopper 1 to paired extruder surge bins 1 served by a dust collector	--	--	--	--	--	--	Included in item 33
33	paired extruder surge bins 1 served by a dust collector	0.0063	100%	99%	6.3E-05	275	0.017	same as item 13
34	pneumatic material transfer from hopper 2 to paired extruder surge bins 2 served by a dust collector	--	--	--	--	--	--	Included in item 35
35	paired extruder surge bins 2 served by a dust collector	0.0063	100%	99%	6.3E-05	275	0.017	same as item 13
36	pneumatic material transfer from hopper 3 to paired extruder surge bins 3 served by a dust collector	--	--	--	--	--	--	Included in item 37
37	paired extruder surge bins 3 served by a dust collector	0.0063	100%	99%	6.3E-05	275	0.017	same as item 13
38	pneumatic material transfer from hopper 4 to paired extruder surge bins 4 served by a dust collector	--	--	--	--	--	--	Included in item 39
39	paired extruder surge bins 4 served by a dust collector	0.0063	100%	99%	6.3E-05	275	0.017	same as item 13
						Total:	24.2	
						EF - Hammermills	0.021	lb-PM10/ton
						EF - Truck loadout:	0.0009	lb-PM10/ton
						EF-material handling & transfer:	0.00030	lb-PM10/ton

Appendix D
BACT Guidelines

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 5.2.4*

Last Update: 3/6/2020

Feed Mill - Grain Grinding, Dry Process

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Baghouse, or equivalent (99% or greater control efficiency)		

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

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

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 5.2.6*

Last Update: 2/22/1999

Feed Mill - High Moisture Grain Pelletizing & Drying Operation

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC		Natural gas firing	
PM10	High Efficiency Cyclone and High Moisture Feed (0.02 lb PM10/ton of product dried.)		
NOx	64.2 ppmv @ 3% O2 (0.077 lb/MMBtu/hr) Natural gas burner	20 ppmv @ 3% O2 (0.024 lb/MMBtu/hr) Natural gas burner	

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

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

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 5.2.7*

Last Update: 3/12/1998

**Grain Cooler - Feed Mill, Steam Softened for Grain Rolling or
Pelletizing Operations**

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Enclosed conveyors, grain cooler vented to 1D-3D cyclones		

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

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

Appendix E
BACT Analysis

Top-Down BACT Analysis

N-8234-3-4

Existing and new Hammermills

As noted in section VIII, each existing and new hammermill triggers BACT for PM₁₀ emissions.

Step 1 - Identify All Possible Control Technologies

BACT Guideline 5.2.4 – grain grinding process lists the following techniques to reduce PM₁₀ emissions:

Achieved-In-Practice:

Baghouse or equivalent (99% or greater control efficiency)

Technologically Feasible:

None

Alternate Basic Equipment:

None

Step 2 - Eliminate Technologically Infeasible Options

There are no technologically infeasible options listed in Step 1.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Baghouse or equivalent (99% or greater control efficiency) - AIP

Step 4 - Cost Effectiveness Analysis

There is no technologically feasible or alternate basic equipment listed in Step 3 that requires cost effectiveness analysis.

Step 5 - Select BACT

BACT for the grain hammermill would be to discharge it's dust through a baghouse. Each existing hammermill has its own baghouse. The newly proposed hammermill will also have its dedicated baghouse. Therefore, this proposal meets the BACT requirements.

N-8234-18

Note that BACT guidelines 5.2.6 and 5.2.7 were previously used in DPF's projects processed prior to May 11, 2022. These guideline are were rescinded on May 11, 2022. The proposed project was deemed complete for NSR purposes prior to May 11, 2022. Therefore, the information in these guidelines is being used here.

Update to BACT guidelines 5.2.6 and 5.2.7 is in-progress. DPF uses low-NOx burners to reduce NOx emissions from the dryer, uses cyclones to reduce PM₁₀ emissions from high moisture exhaust streams, and route all exhaust streams from cyclones to the RTOs to further reduce VOC, PM₁₀ and odors. The preliminary assessment indicates that emission control stringent than the already installed controls are not expected at any other pet food manufacturing operations. Therefore, newer updated guidelines does not appear to have any adverse impact on BACT analysis under this project.

Natural gas combustion in dryer:

As noted in section VIII, pet food dryer triggers BACT for NOx emissions.

Step 1 - Identify All Possible Control Technologies

BACT guideline 5.2.6 – high moisture grain pelletizing & drying operation is used to address the BACT for a pet food dryer. This guideline lists the following techniques to reduce NOx emissions:

Achieved-In-Practice (AIP):

The AIP limit is 64.2 ppmvd @ 3% O₂ (0.077 lb/MMBtu). This limit is less stringent than the 4.3 ppmvd @ 19% O₂ (0.048 lb/MMBtu) limit in the District Rule 4309. Therefore, the rule limit is considered to be an AIP standard for the pet food dryers.

4.3 ppmvd NOx @ 19% O₂

Technologically Feasible:

20 ppmvd NOx @ 3% O₂ (0.024 lb/MMBtu) with natural gas burner, equivalent to 2.1 ppmvd NOx @ 19% O₂

Per dryer supplier, Extru-Tech, it is technically feasible to install a burner that can achieve 9.0 ppmv NO_x @ 3% O₂ after making design changes to the dryer. Thus, this option is deemed technically feasible for the proposed dryers.

9 ppmvd @ 3% O₂, equivalent to 1.1 ppmvd @ 19% O₂

Alternate Basic Equipment:

None

Step 2 - Eliminate Technologically Infeasible Options

There are no technologically infeasible options listed in Step 1.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. 1.1 ppmvd NOx @ 19% O₂ (0.012 lb/MMBtu) – Technologically Feasible
2. 2.1 ppmvd NOx @ 19% O₂ (0.024 lb/MMBtu) – Technologically Feasible
3. 4.3 ppmvd NOx @ 19% O₂ (0.048 lb/MMBtu) – AIP

Step 4 - Cost Effectiveness Analysis

Option 1: 1.1 ppmvd @ 19% O₂

The dryer vendor, Extru-Tech Inc., has given the following costs “in addition” to the base model (refer to DPF’s letter dated June 21, 2021).

Item	Total (\$)	Comments
Burner Cost	\$244,551	This represents the incremental cost of the Eclipse MINNOx burners (1.1 ppmvd) over the cost of the Eclipse AH-350 (4.3 ppmvd) in all five compartments in the dryer
External ducting arrangement	\$118,053	Burner design will require a complete external combustion chamber located adjacent to dryer/cooler; ducting to and from external combustion chamber to dryer/cooler
Internal ducting arrangement	\$22,112	Modified from the standard arrangement
Engineering re-design time	\$89,600	640 hours @ \$140/hr
Factory acceptance test	\$14,749	Required due to proto-type design, complete assembly of unit electrical and gas plumbing to validate process
Total Cost:	\$489,065	--
Tax (7.75%):	\$37,903	City of Ripon, San Joaquin County, California
Total Additional Cost:	\$526,968	--

The total additional cost (P) is annualized over 10 years @ 4% interest rate. The following formula is used to determine the annualized cost:

$$A = (P) \left[\frac{(i)(1+i)^n}{(1+i)^n - 1} \right]$$

Where:

- A: Annualized Cost
- P: Present Cost (\$526,968)
- I: Interest rate (4% per the June 1, 2021 version of District BACT policy)
- n: Equipment life (District policy is to use 10 years)

$$A = (\$526,968) \left[\frac{(0.04)(1+0.04)^{10}}{(1+0.04)^{10} - 1} \right] = \frac{\$64,970}{\text{yr}}$$

In determining the cost of reduction, typically the District uses the emission reduction that can be achieved from the current “industry standard”. Rule 4309 limit of 4.3 ppmvd @ 19% O₂ (0.048

lb/MMBtu) is assumed to be the “industry standard”. Therefore, the reduction from the “industry standard” would be 3,154 lb-NOx/yr [(0.048-0.012 lb/MMBtu)(10 MMBtu/hr)(8,760 hr/yr)].

Cost of Reduction (\$/ton):

$$A = \frac{\left(\frac{\$64,970}{yr}\right) \left(2,000 \frac{lb}{ton}\right)}{\left(3,154 \frac{lb - NOx}{yr}\right)} = \frac{\$41,199}{ton - NOx}$$

The cost of NO_x reduction is greater than the cost effectiveness threshold of \$31,600/ton of NO_x. Therefore, the use of Eclipse’s MINNO_x burner technology is not cost effective, and is not required at this time.

Option 2: 2.1 ppmvd @ 19% O₂

The applicant has proposed to achieve 20 ppmvd NO_x @ 3% O₂, equivalent to 2.1 ppmvd @ 19% O₂. Therefore, cost-effectiveness analysis is not performed for this option.

Option 3: 4.3 ppmvd @ 19% O₂

This is an achieved-in-practice option. Therefore, cost-effectiveness analysis is not performed.

Step 5 - Select BACT

BACT for the proposed operation is to use a burner system capable of achieving 2.1 ppmvd NO_x @ 19% O₂. The applicant has proposed to install this burner system. Thus, BACT requirements are satisfied.

Process Emissions (PM10):

As noted in section VIII, pet food dryer and cooler under each permit trigger BACT for PM10 emissions. BACT guidelines 5.2.6 and 5.2.7 are referenced to determine the BACT requirements.

Dryer:

Step 1 - Identify All Possible Control Technologies

BACT guideline 5.2.6 – high moisture grain pelletizing & drying operation is used to address BACT for PM10 emissions from a pet food dryer.

Achieved-In-Practice (AIP):

High efficiency cyclone and high moisture feed (0.02 lb-PM10/ton of product dried)

Technologically Feasible:

None

Alternate Basic Equipment:

None

Step 2 - Eliminate Technologically Infeasible Options

There are no technologically infeasible options listed in Step 1.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. High efficiency cyclone and high moisture feed – AIP

Note that the emission factor, 0.02 lb-PM₁₀/ton of product, is not included in the above option because this factor has not been demonstrated via source testing. The project file N-980668 and the associated ATCs were reviewed to arrive at this conclusion.

Step 4 - Cost Effectiveness Analysis

There is no technologically feasible or alternate basic equipment listed in Step 3 that requires cost effectiveness analysis.

Step 5 - Select BACT

BACT for the dryers is to discharge the laden air stream through a high efficiency cyclone while maintaining high moisture in the product. DPF discharges the dryers through high efficiency cyclone to capture most of the process particulate matter, while maintaining high moisture (over 6%) during the drying process. Therefore, the dryers meet these BACT requirements.

Dryer Cooler:

Step 1 - Identify All Possible Control Technologies

BACT guideline 5.2.7 – grain cooler for freed mill, steam softened for grain rolling or pelletizing operation is used to address the BACT for PM₁₀ emissions from a dryer cooler.

Achieved-In-Practice (AIP):

Enclosed conveyors, grain cooler vented to 1D-3D cyclones

Technologically Feasible:

None

Alternate Basic Equipment:

None

Step 2 - Eliminate Technologically Infeasible Options

There are no technologically infeasible options listed in Step 1.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Enclosed conveyors, grain cooler vented to 1D-3D cyclones – AIP

Step 4 - Cost Effectiveness Analysis

There is no technologically feasible or alternate basic equipment listed in Step 3 that requires cost effectiveness analysis.

Step 5 - Select BACT

BACT for the coolers is to discharge the laden air stream through a 1D-3D cyclone and use enclosed conveyors. DPF uses high efficiency cyclones to discharge the laden air from the coolers. The product is conveyed using enclosed conveyors. Therefore, the coolers meet these BACT requirements.

Process Emissions (VOC):

As noted in section VIII, pet food dryer and coolers under this permit triggers BACT for VOC emissions.

Step 1 - Identify All Possible Control Technologies

The District BACT clearinghouse does not have a specific guideline for pet food manufacturing operation. A project specific analysis under DPF's project N-1143145 identifies the following VOC emissions control technologies:

1. Regenerative thermal oxidizer
2. VOC concentrator with RTO
3. Carbon adsorber
4. Biofiltration system

Step 2 - Eliminate Technologically Infeasible Options

The options listed in Step 1 are technically feasible.

As noted in project N-1143145, VOC concentrator with RTO is conservatively presumed to be a technologically feasible option for the purpose of this project without further evaluating an argument from DPF that the odorous streams contains methanol and ethanol which cannot be adsorbed into Zeolite material concentrators. Material other than Zeolite (such as carbon, other polymers) may be used in a concentrator to adsorb methanol and ethanol compounds¹.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Regenerative thermal oxidizer (95-98% overall control)

¹ Refer to the discussion in EPA's document "Choosing an adsorption system for VOC" # EPA 456/F-99-004 available at <https://www3.epa.gov/ttnecat1/cica/files/fadsorb.pdf>

2. Carbon adsorber (95% overall control)
3. VOC concentrator with RTO (93% overall control²)
4. Biofiltration (90% overall control)

Step 4 - Cost Effectiveness Analysis

DPF has proposed to vent the exhaust from the new dryer and coolers through a regenerative thermal oxidizer. Therefore, cost effectiveness analysis is not required for the technologies listed in Step 3 above.

Step 5 - Select BACT

BACT for the new dryer and the cooler is to discharge the exhaust through a regenerative thermal oxidizer to reduce the VOC emissions. DPF has proposed to comply with this BACT requirement. Therefore, BACT requirements are satisfied.

² A well designed concentrator system can achieve 95-98% control efficiency per page 16 of EPA's document "Choosing an adsorption system for VOC" # EPA 456/F-99-004 available at <http://www.epa.gov/ttn/catc/dir1/fadsorb.pdf>. If the adsorber is coupled with RTO, combined control efficiency is expected to be 93% (95% for adsorber x 98% for RTO)

Appendix F
HRA Summary & AAQA Analysis

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

To: Jag Kahlon – Permit Services
 From: Will Worthley – Technical Services
 Date: August 19, 2021
 Facility Name: DIAMOND PET FOOD PROCESSORS OF RIPON
 Location: 942 S STOCKTON AVE, RIPON
 Application #(s): N-8234-2-6, -3-4, -4-13, -5-13, -6-13, -18-0
 Project #: N-1211835

1. Summary

1.1 RMR

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
2-6	0.00	0.00	0.00	0.00E+00	No	Yes
3-4	0.00	0.00	0.00	0.00E+00	No	Yes
4-13	0.00	0.00	0.00	0.00E+00	No	No
5-13	0.00	0.00	0.00	0.00E+00	No	No
6-13	0.00	0.00	0.00	0.00E+00	No	No
18-0	0.01	0.00	0.00	1.31E-09	No	Yes
Project Totals	>1	0.00	0.00	1.31E-09		
Facility Totals	>1	0.17	0.00	7.37E-08		

1.2 AAQA

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

Notes:

- Results were taken from the attached AAQA Report.
- The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2) unless otherwise noted below.
- Modeled PM10 concentrations were below the District SIL for non-fugitive sources of 5 µg/m³ for the 24-hour average concentration and 1 µg/m³ for the annual concentration.
- Modeled PM2.5 concentrations were below the District SIL for non-fugitive sources of 1.2 µg/m³ for the 24-hour average concentration and 0.2 µg/m³ for the annual concentration.
- NOx was not modeled, as there was no increase in NOx with this project.

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

Unit # 4-13, 5-13, & 6-13

1. No special requirements.

Unit # 2-6, 3-4, & 18-0

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

2. Project Description

Technical Services received a request on August 12, 2021 to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for the following:

- Unit -2-6: MODIFICATION OF PET FOOD MATERIAL DISPENSING, CONVEYING AND STORAGE OPERATIONS: INCREASE TOTAL THROUGHPUT OF PET FOOD MATERIAL DISPENSING, CONVEYING AND STORAGE OPERATIONS TO 1,100 TONS PER DAY AND 280,000 TONS PER YEAR
- Unit -3-4: MODIFICATION OF PET FOOD MATERIAL DISPENSING, MIXING, GRINDING AND SCREENING, EXTRUSION SURGE BINS, AND ASSOCIATED CONVEYING OPERATIONS: ADD ONE NEW SURGE BIN, ONE NEW HAMMERMILL SYSTEM AND A NEW SET OF EXTRUDER SURGE BINS, REMOVE VIBRATORY SCREENER ASSOCIATED WITH THREE HAMMERMILLS, INCREASE EACH HAMMERMILL THROUGHPUT TO 1,100 TONS PER DAY
- Unit -4-13: MODIFICATION OF PET FOOD PROCESSING LINE #1: INCREASE THROUGHPUT TO 1,040 TONS PER DAY
- Unit -5-13: MODIFICATION OF PET FOOD PROCESSING LINE #2: INCREASE THROUGHPUT TO 1,040 TONS PER DAY
- Unit -6-13: MODIFICATION OF PET FOOD PROCESSING LINE #3: INCREASE THROUGHPUT TO 1,040 TONS PER DAY
- Unit -18-0: PET FOOD LINE #4

3. RMR Report

3.1 Analysis

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

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

Then, generally no further analysis is required.

The District's significant prioritization score threshold is defined as being equal to or greater than 1.0. If a preliminary analysis demonstrates that either the unit's or the project's or the facility's total prioritization score is greater than the District threshold, a screening or a refined assessment is required

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

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

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

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

The AERMOD model was used, with the parameters outlined below and meteorological data for 2013-2017 from Modesto (rural dispersion coefficient selected) to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Source Process Rates					
Unit ID	Process ID	Process Material	Process Units	Hourly Process Rate	Annual Process Rate
18	1	NG Usage	MMscf	0.01	87.6

Point Source Parameters						
Unit ID	Unit Description	Release Height (m)	Temp. (°K)	Exit Velocity (m/sec)	Stack Diameter (m)	Vertical/Horizontal/Capped
18-0 RTO1	NG usage	11.58	376	16.07	1.52	Vertical
18-0 RTO2	NG usage	11.58	376	16.07	1.52	Vertical
18-0 RTO3	NG usage	11.58	376	16.07	1.52	Vertical

4. AAQA Report

The District modeled the impact of the proposed project on the National Ambient Air Quality Standard (NAAQS) and/or California Ambient Air Quality Standard (CAAQS) in accordance with District Policy APR-1925 (Policy for District Rule 2201 AAQA Modeling) and EPA's Guideline for Air Quality Modeling (Appendix W of 40 CFR Part 51). The District uses a progressive three level approach to perform AAQAs. The first level (Level 1) uses a very conservative approach. If this analysis indicates a likely exceedance of an AAQS or Significant Impact Level (SIL), the analysis proceeds to the second level (Level 2) which implements a more refined approach. For the 1-hour NO₂ standard, there is also a third level that can be implemented if the Level 2 analysis indicates a likely exceedance of an AAQS or SIL.

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

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

Monitoring Stations				
Pollutant	Station Name	County	City	Measurement Year
CO	Modesto-14th Street	Stanislaus	Modesto	2018
PM10	Modesto-14th Street	Stanislaus	Modesto	2018
PM2.5	Modesto-14th Street	Stanislaus	Modesto	2018
SOx	Fresno - Garland	Fresno	Fresno	2018

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

Emission Rates (lbs/hour)						
Unit ID	Process	NOx	SOx	CO	PM10	PM2.5
2	1	0	0	0	0.004	0.004
3	1	0	0	0	0.26	0.26
18	1	0	0.03	1.12	0.33	0.33

Emission Rates (lbs/year)						
Unit ID	Process	NOx	SOx	CO	PM10	PM2.5
2	1	0	0	0	53	53
3	1	0	0	0	2,300	2,300
18	1	0	250	9,811	2,904	2904

The AERMOD model was used to determine if emissions from the project would cause or contribute to an exceedance of any state of federal air quality standard. The parameters outlined below and meteorological data for 2013-2017 from Modesto (rural dispersion coefficient selected) were used for the analysis:

The following parameters were used for the review:

Point Source Parameters						
Unit ID	Unit Description	Release Height (m)	Temp. (°K)	Exit Velocity (m/sec)	Stack Diameter (m)	Vertical/Horizontal/Capped
2	Baghouse unit 2	6.40	Ambient	7.28	0.61	Vertical
3	Baghouse unit 3a	21.64	Ambient	33.79	0.15	Vertical
3	Baghouse unit 3b	21.64	Ambient	33.79	0.15	Vertical
3	Baghouse unit 3c	21.64	Ambient	33.79	0.15	Vertical
18	RTO 1	11.58	376	16.07	1.52	Vertical
18	RTO 2	11.58	376	16.07	1.52	Vertical
18	RTO 3	11.58	376	16.07	1.52	Vertical

5. Conclusion

5.1 RMR

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

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

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

5.2 AAQA

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

6. Attachments

- A. Modeling request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Prioritization score w/ toxic emissions summary
- D. Facility Summary
- E. AAQA results

Appendix G
Cost Effectiveness Analysis for NOx Reduction Techniques

Cost Effectiveness Analysis for Scrubber

Cost Item	Reasons & Remarks	Estimated Cost
Direct Costs		
Purchased equipment costs		
Equipment Purchase (Scrubber), EC	Ref: Estimate by Durr USA	\$4,500,000
Instrumentation (included)		
Sales taxes	3.1825% EC	\$143,213
*Freight	0.05 EC	\$225,000
Purchased equipment costs, PEC	sum of above items	\$4,868,213
Direct installation costs	Ref: Section 5 Table 1.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	Direct installation costs are provided by DPF
Foundations & supports	0.12 PEC	\$450,000
Handling & erection	0.40 PEC	
Electrical	0.01 PEC	
Piping	0.30 PEC	
Insulation for duct work	0.01 PEC	
Painting	0.01 PEC	
Direct installation costs	sum of above items	\$450,000
Site preparation	not included	
Buildings	not included	
Total Direct Costs, DC		\$5,318,213
Indirect Costs (installation)	Ref: Section 5 Table 1.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	No cost estimate by DPF, assumed indirect installation cost is
Engineering	0.10 PEC	
Construction & field expenses	0.10 PEC	
Contractor fees	0.10 PEC	
Performance test	0.01 PEC	
Contingencies	0.03 PEC	
Total Indirect Costs, IC	sum of above items	\$0
Total Capital Investment	DC + IC	\$5,318,213
Direct Annual Costs	Ref: Section 5 Table 1.4 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Operating labor		
Operator	0.5 hr/shift, \$32.00/hr, 3 shifts/day, 363 days/yr	\$17,520
Supervisor	15% of operator	\$2,628
Operating materials		
Wastewater disposal (scrubber water)	Not estimated	--
Maintenance		
Labor	0.5 hr/shift, \$32.00/hr, 3 shifts/day, 363 days/yr	\$17,424
Materials	100% of maintenance labor	\$17,424
Utilities		
Electricity (Scrubber)	Not estimated	--
Wastewater disposal	Not estimated	--
Total Direct Annual Costs, DAC	sum of above items	\$54,996
Indirect Annual Costs	Ref: Section 5 Table 1.4 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Overhead	60% of sum of operating, supervisor, & maintenance labor & maintenance materials	\$32,997.60
Administrative Charges	2%TCI	\$106,364
Property Taxes	1%TCI	\$53,182
Insurance	1%TCI	\$53,182
Total Indirect Annual Costs, IAC	sum of above items	\$245,726
Total Annual Costs, TAC	DAC + IAC	\$300,722
Cost of Emission Reductions (\$/ton)		
Annualized Total Capital Investment, ATCI	0.163 TCI, amortization factor determined using 10 year, 10% interest	\$865,515
Total annual costs	ATCI + TAC	\$1,166,237
Emission Reductions (tons/yr)	Uncontrolled emissions = 13.7 tons/yr (total for all 3 RTOs) - 4.7 tons/yr (all 3 RTO NOx combustion emissions) - 4.3 tons/yr (All 4 dryers combustion emissions) = 4.7 tons/yr, 90% control	4.2
Cost of Emission Reductions (\$/ton)		\$275,706
*Ref. Section 5 Table 1.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001		

Cost Effectiveness Analysis for Baghouse

Cost Item	Reasons & Remarks	Estimated Cost
Direct Costs		
Purchased equipment costs		
Equipment Purchase (Scrubber), EC	Ref: Estimate by Durr USA	\$2,850,000
Instrumentation (included)		
Sales taxes	3.1825% EC	\$90,701
*Freight	0.05 EC	\$142,500
Purchased equipment costs, PEC	sum of above items	\$3,083,201
Direct installation costs		
	Ref: Section 5 Table 1.9 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	Direct insallation costs are provided by DPF
Foundations & supports	0.04 PEC	\$285,000
Handling & erection	0.50 PEC	
Electrical	0.08 PEC	
Piping	0.01 PEC	
Insulation for duct work	0.07 PEC	
Painting	0.04 PEC	
Direct installation costs	sum of above items	\$285,000
Site preparation	not included	
Buildings	not included	
Total Direct Costs, DC		\$3,368,201
Indirect Costs (installation)		
	Ref: Section 6 Table 1.9 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	No cost estimate by DPF, assumed indirect installation cost is included in \$250,000
Engineering	0.10 PEC	
Construction & field expenses	0.20 PEC	
Contractor fees	0.10 PEC	
Start-up	0.01 PEC	
Performance test	0.01 PEC	
Contingencies	0.03 PEC	
Total Indirect Costs, IC	sum of above items	\$0
Total Capital Investment	DC + IC	\$3,368,201
Direct Annual Costs		
	Ref: Section 6 Table 1.11 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Operating labor		
Operator	0.5 hr/shift, \$32.00/hr, 3 shifts/day, 363 days/yr	\$17,520
Supervisor	15% of operator	\$2,628
Operating materials		
Waste disposal	Not estimated	--
Maintenance		
Labor	0.5 hr/shift, \$32.00/hr, 3 shifts/day, 363 days/yr	\$17,424
Materials	100% of maintenance labor	\$17,424
Utilities		
Electricity	Not estimated	--
Compressed air	Not estimated	--
Waste disposal	Not estimated	--
Total Direct Annual Costs, DAC	sum of above items	\$54,996
Indirect Annual Costs		
	Ref: Section 6 Table 1.11 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Overhead	60% of sum of operating, supervisor, & maintenance lable & maintenance materials	\$32,997.60
Administrative Charges	2%TCI	\$67,364
Property Taxes	1%TCI	\$33,682
Insurance	1%TCI	\$33,682
Total Indirect Annual Costs, IAC	sum of above items	\$167,726
Total Annual Costs, TAC	DAC + IAC	\$222,722
Cost of Emission Reductions (\$/ton)		
Annualized Total Capital Investment, ATCI	0.163 TCI, amortization factor determined using 10 year, 10% interest	\$548,159
Total annual costs	ATCI + TAC	\$770,881
Emission Reductions (tons/yr)	Uncontrolled emissions = 13.7 tons/yr (total for all 3 RTOs) - 4.7 tons/yr (all 3 RTO NOx combustion emissions) - 4.3 tons/yr (All 4 dryers combustion emissions) = 4.7 tons/yr, 90% control	4.2
Cost of Emission Reductions (\$/ton)		\$182,241

*Ref. Section 6 Table 1.9 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001

Cost Effectiveness Analysis for Selective Catalytic Reduction System

Cost Item	Reasons & Remarks	Estimated Cost
Direct Costs		
Purchased equipment costs		
Equipment Purchase (SCR), EC	Ref: Estimate by Durr USA	\$5,400,000
Instrumentation (included)		
Sales taxes	3.1825% EC	\$171,855
*Freight	0.05 EC	\$270,000
Purchased equipment costs, PEC	sum of above items	\$5,841,855
Direct installation costs	Direct installation costs are provided by DPF	
Foundations & supports	--	
Handling & erection	--	
Electrical	--	
Piping	--	
Insulation for duct work	--	
Painting	--	
Direct installation costs	sum of above items	\$540,000
Site preparation	not included	
Buildings	not included	
Total Direct Costs, DC		\$6,381,855
Indirect Costs (installation)	No cost estimate by DPF, assumed indirect installation cost is included in \$540,000	
Engineering	--	--
Construction & field expenses	--	--
Contractor fees	--	--
Performance test	--	--
Contingencies	--	--
Total Indirect Costs, IC	sum of above items	\$0
Total Capital Investment	DC + IC	\$6,381,855
Direct Annual Costs	Ref: Section 5 Table 1.4 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001, assumed to be same for SCR system	
Operating labor		
Operator	0.5 hr/shift, \$32.00/hr, 3 shifts/day, 363 days/yr	\$17,520
Supervisor	15% of operator	\$2,628
Operating materials		
Reagent costs	Not estimated	--
Maintenance		
Labor	0.5 hr/shift, \$32.00/hr, 3 shifts/day, 363 days/yr	\$17,424
Materials	100% of maintenance labor	\$17,424
Utilities		
Electricity	Not estimated	--
Total Direct Annual Costs, DAC	sum of above items	\$54,996
Indirect Annual Costs	Ref: Section 5 Table 1.4 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001, assumed to be same for SCR system	
Overhead	60% of sum of operating, supervisor, & maintenance labor & maintenance materials	\$32,997.60
Administrative Charges	2%TCI	\$127,637
Property Taxes	1%TCI	\$63,819
Insurance	1%TCI	\$63,819
Total Indirect Annual Costs, IAC	sum of above items	\$288,272
Total Annual Costs, TAC	DAC + IAC	\$343,268
Cost of Emission Reductions (\$/ton)		
Annualized Total Capital Investment, ATCI	0.163 TCI, amortization factor determined using 10 year, 10% interest	\$1,038,618
Total annual costs	ATCI + TAC	\$1,381,886
Emission Reductions (tons/yr)	Uncontrolled emissions = 13.7 tons/yr (total for all 3 RTOs), 82.9% control efficiency provided by Durr	11.4
Cost of Emission Reductions (\$/ton)		\$121,674
*Ref. Section 5 Table 1.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001		

Cost Effectiveness Analysis for eNOx

Cost Item	Reasons & Remarks	Estimated Cost
Direct Costs		
Purchased equipment costs		
Equipment Purchase (SCR), EC	Ref: Estimate by Messer (Linde)	\$5,000,000
Instrumentation (included)		
Sales taxes	3.1825% EC	\$159,125
*Freight	0.05 EC	\$250,000
Purchased equipment costs, PEC	sum of above items	\$5,409,125
Direct installation costs	Direct installation costs are provided by DPF	
Foundations & supports	--	
Handling & erection	--	
Electrical	--	
Piping	--	
Insulation for duct work	--	
Painting	--	
Direct installation costs	sum of above items	\$500,000
Site preparation	not included	
Buildings	not included	
Total Direct Costs, DC		\$5,909,125
Indirect Costs (installation)	No cost estimate by DPF, assumed indirect installation cost is included in \$540,000	
Engineering	--	--
Construction & field expenses	--	--
Contractor fees	--	--
Performance test	--	--
Contingencies	--	--
Total Indirect Costs, IC	sum of above items	\$0
Total Capital Investment	DC + IC	\$5,909,125
Direct Annual Costs	Ref: Section 5 Table 1.4 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001, assumed to be same for SCR system	
Operating labor		
Operator	0.5 hr/shift, \$32.00/hr, 3 shifts/day, 363 days/yr	\$17,520
Supervisor	15% of operator	\$2,628
Operating materials		
Reagent costs	Not estimated	--
Maintenance		
Labor	0.5 hr/shift, \$32.00/hr, 3 shifts/day, 363 days/yr	\$17,424
Materials	100% of maintenance labor	\$17,424
Utilities		
Electricity	Not estimated	--
Total Direct Annual Costs, DAC	sum of above items	\$54,996
Indirect Annual Costs	Ref: Section 5 Table 1.4 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001, assumed to be same for SCR system	
Overhead	60% of sum of operating, supervisor, & maintenance labor & maintenance materials	\$32,997.60
Administrative Charges	2%TCI	\$118,183
Property Taxes	1%TCI	\$59,091
Insurance	1%TCI	\$59,091
Total Indirect Annual Costs, IAC	sum of above items	\$269,363
Total Annual Costs, TAC	DAC + IAC	\$324,359
Cost of Emission Reductions (\$/ton)		
Annualized Total Capital Investment, ATCI	0.163 TCI, amortization factor determined using 10 year, 10% interest	\$961,683
Total annual costs	ATCI + TAC	\$1,286,042
Emission Reductions (tons/yr)	Uncontrolled emissions = 13.7 tons/yr (total for all 3 RTOs), 54% control efficiency provided by Messer	7.4
Cost of Emission Reductions (\$/ton)		\$173,836
*Ref. Section 5 Table 1.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001		

Appendix H
Quarterly Net Emissions Change

Quarterly Net Emissions Change (QNEC)

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

QNEC = PE2 - PE1, where:

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

N-8234-2-6

Pollutant	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
PM ₁₀	19	5.75	13.25

N-8234-3-3

Pollutant	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
PM ₁₀	2,199.25	1,633.5	565.75

N-8234-4-13 or '5-13 or '6-13

QNEC would be zero for each of the existing pet food lines. The daily and annual PE2 for each line are as follows:

NO_x:

PE2 = [33,639 lb-NO_x/yr (total) - 8,400 lb-NO_x/yr for line 4 lines] ÷ 3 pet food lines
= 8,413 lb-NO_x/yr/line

PE2 = 51.6 lb-NO_x/day/line (refer to calculations under N-8234-18)

SO_x:

PE2 = 1.1 lb-SO_x/day/line; 362 lb-SO_x/yr/line (refer to calculations under N-8234-18)

PM₁₀:

Process Emissions:

PE2 = 0.0306 lb-PM₁₀/ton x 780 tons/day = 23.9 lb-PM₁₀/day, for each line, as well as, for three existing pet food lines

= 23.9 lb-PM₁₀/day x 365 days/yr = 8,724 lb-PM₁₀/yr for each line, as well as, for three existing pet food lines

Natural gas combustion in RTOs:

PE2 = 1,192 lb-PM₁₀/yr (refer to section VII.C.2 above)

PE2 (lb/yr/line) = (PE2_{Process} from three pet food lines ÷ 3) + (PE2_{RTOs} shared by 4 pet food lines ÷ 4)
= (8,724 ÷ 3) + (1,192 ÷ 4)
= 3,206 lb-PM₁₀/yr/line

CO:

PE2 = 149 lb-CO/day/line: 44,311 lb-CO/yr/line (refer to calculations under N-8234-18)

VOC:

Process Emissions:

PE2 = 0.005 lb-VOC/ton x 780 tons/day = 3.9 lb-VOC/day, for each line, as well as, for three existing pet food lines
= 3.9 lb-VOC/day x 365 days/yr = 1,424 lb-VOC/yr for each line, as well as, for three existing pet food lines

Natural gas combustion in RTOs:

PE2 = 862 lb-VOC/yr (refer to section VII.C.2 above)

$$\begin{aligned} \text{PE2 (lb/yr/line)} &= (\text{PE2}_{\text{Process from three pet food lines}} \div 3) + (\text{PE2}_{\text{RTOs shared by 4 pet food lines}} \div 4) \\ &= (1,424 \div 3) + (862 \div 4) \\ &= 690 \text{ lb-VOC/yr/line} \end{aligned}$$

N-8234-18-0

This is a new pet food manufacturing line. The QNEC for new pet food manufacturing are estimated as follows:

NOx:

PE2 = 8,400 lb-NOx/yr

PE2 = [(5.8 lb-NOx/day-dryer) + (61 lb-NOx/day-RTO x 3 RTOs/4 lines)] = 51.6 lb-NOx/day/line

$$\text{QNEC} = (\text{PE2} - \text{PE1})/4 = (8,400 \text{ lb-NOx/yr} - 0 \text{ lb-NOx/yr})/4 = 2,100 \text{ lb-NOx/qtr}$$

SOx

PE2 = [(250 lb-SOx/yr-dryer) + (447 lb-SOx/yr/4 lines)] = 362 lb-SOx/yr/line

PE2 = [(0.7 lb-SOx/day-dryer) + (0.5 lb-SOx/day-RTO x 3 RTOs/4 lines)] = 1.1 lb-SOx/day

$$\text{QNEC} = (362 \text{ lb-SOx/yr/line} - 0)/4 = 90.5 \text{ lb-SOx/qtr}$$

PM₁₀:

$$\begin{aligned} \text{PE2} &= [(\text{PE2}_{\text{Process (four pet food lines)}} - \text{PE2}_{\text{Process (three pet food lines)}}) + (\text{PE2}_{\text{RTOs shared by 4 pet food lines}} \div 4)] \\ &= [(11,616 \text{ lb-PM}_{10}/\text{yr} - 8,724 \text{ lb-PM}_{10}/\text{yr}) + (1,192 \text{ lb-PM}_{10}/\text{yr} \div 4 \text{ lines})] \\ &= 3,190 \text{ lb-PM}_{10}/\text{yr} \end{aligned}$$

$$\begin{aligned} \text{PE2} &= [(31.8 \text{ lb-PM}_{10}/\text{day from new line}) + (1.4 \text{ lb-PM}_{10}/\text{day-RTO} \times 3 \text{ RTOs}/4 \text{ lines})] \\ &= 32.9 \text{ lb-PM}_{10}/\text{day} \end{aligned}$$

$$\text{QNEC} = (3,190 \text{ lb-PM}_{10}/\text{yr} - 0)/4 = 797.5 \text{ lb-PM}_{10}/\text{qtr}$$

CO:

PE2 = [(9,811 lb-CO/yr-dryer) + (137,998 lb-CO/yr/4 lines)] = 44,311 lb-CO/yr/line

PE2 = [(26.9 lb-CO/day-dryer) + (162.6 lb-CO/day-RTO x 3 RTOs/4 lines)] = 149.0 lb-CO/day

$$\text{QNEC} = (44,311 \text{ lb-CO/yr/line} - 0)/4 = 11,077.75 \text{ lb-CO/qtr}$$

VOC:

$$\begin{aligned} \text{PE2} &= [(\text{PE2}_{\text{Process (four pet food lines)}} - \text{PE2}_{\text{Process (three pet food lines)}}) + (\text{PE2}_{\text{RTOs shared by 4 pet food lines}} \div 4)] \\ &= [(1,898 \text{ lb-VOC/yr} - 1,424 \text{ lb-VOC/yr}) + (862 \text{ lb-VOC/yr} \div 4 \text{ lines})] \\ &= 690 \text{ lb-VOC/yr} \end{aligned}$$

$$\begin{aligned} \text{PE2} &= [(5.2 \text{ lb-VOC/day from new line}) + (1.0 \text{ lb-VOC/day-RTO} \times 3 \text{ RTOs}/4 \text{ lines})] \\ &= 6.0 \text{ lb-VOC/day} \end{aligned}$$

$$\text{QNEC} = (690 \text{ lb-VOC/yr/line} - 0)/4 = 172.5 \text{ lb-VOC/qtr}$$

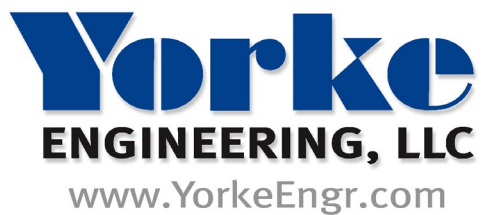
Appendix I
Odor Management Plan

**Diamond Pet Foods –
Ripon**

**942 South Stockton Ave.
Ripon, CA 95366**

March 2021

Prepared by:



Office Locations:
Los Angeles, Orange County, Riverside, Ventura,
San Diego, Fresno, Berkeley, San Jose, Bakersfield

Tel: (949) 248-8490
Fax: (949) 248-8499

Copyright ©2021, Yorke Engineering, LLC

Odor Management Plan

Odor Management Plan

Prepared for:

Diamond Pet Foods – Ripon
942 South Stockton Avenue
Ripon, CA 95366

March 2021

Table of Contents

1.0	EXECUTIVE SUMMARY	1
2.0	FACILITY INFORMATION	2
3.0	ODOR EMITTING ACTIVITIES.....	3
3.1	Pet Food Production Emissions	3
3.2	Indirect Emission Sources.....	3
3.2.1	<i>Raw Material Odors</i>	3
3.2.2	<i>In-Plant Personnel Areas</i>	4
4.0	PRACTICES TO OPTIMIZE ODOR CONTROL	4
4.1	Durr (Manufacturer) RTO Automatic Maintenance Sequence.....	4
4.2	Administrative Controls: Procedures.....	5
4.2.1	<i>Procedural Activities</i>	5
4.2.2	<i>Staff Training Procedures</i>	8
4.3	Maintenance Frequency: <i>Annual</i> (Per Manufacturer Recommendation).....	9
4.4	Engineering Controls.....	9
4.4.1	<i>Description of Best Available Control Technology (BACT)</i>	9
4.4.2	<i>Components of Engineering Controls</i>	10
4.4.3	<i>Pet Food Production Lines/RTO Process Logic</i>	13
5.0	DPF COMPLAINT TRACKING AND RESPONSE	13
5.1	General Reporting: Facility Overview	13
5.2	Tier 1 Odor Response.....	13
5.3	Tier 2 Odor Response.....	14
5.4	Tier 3 Odor Response.....	15
5.5	DPF Compliance Tracking Flowchart and Contacts	17
5.6	Methods for Filing Odor Complaints	19
6.0	OMP PREPARERS AND AGENCY CONTACTS	20
6.1	OMP Preparers	20
6.2	OMP Reviewing Agency (CEQA Lead Agency).....	20
6.3	OMP Review Frequency.....	20
7.0	REFERENCES.....	20

Table of Appendices

APPENDIX A – RIPON AREA CITIZEN ODOR REPORTING OPTIONS

APPENDIX B – RTO PERSONAL ODOR INSPECTION (POI) PROCEDURE

APPENDIX C – ODOR INSPECTION FORMS

APPENDIX D – SAMPLE ODOR COMPLAINT WEATHER REPORT

APPENDIX E – SAMPLE RTO DAHS MONITORING REPORTS

APPENDIX F – SJVAPCD GUIDELINE: INVESTIGATION OF COMPLAINTS

APPENDIX G – EXCERPT FROM ODOR COMPLAINT TRACKING SHEET

APPENDIX H – SAMPLE MONTHLY ODOR REPORT TO CITY OF RIPON

APPENDIX I – OMP REVIEW TEMPLATE

List of Figures

Figure 4-1: Durr Regenerative Thermal Oxidizer (RTO) Flow Schematic.....	11
Figure 5-1: Progressive Tier Response Flowchart.....	18

List of Tables

Table 1-1: DPF-Ripon RTO Volatile Organic Compound Sampling/Analysis Protocols	1
Table 1-2: DPF-Ripon RTO Volatile Organic Compound Test Results Summary.....	2
Table 4-1: DPF-Ripon Odor Complaint History vs RTO Installation.....	12

List of Acronyms and Abbreviations

AA	Administrative Assistant
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
DPF-Ripon	Diamond Pet Foods – Ripon
°F	Degrees Fahrenheit
FM	Facility Manager
H ₂ O	Water
HAP	Hazardous Air Pollutant
HEPA	High efficiency particulate air
Hz	Hertz
MAMS	Manufacturer Automatic Maintenance Sequence (equivalent to bakeout or bakeoff)
MDAQMD	Mojave Desert Air Quality Management District
MS	Maintenance Supervisor
OMP	Odor Management Plan
PM	Project Manager
PTO	Permit to Operate
QCM	Quality Control Manager
RTO	Regenerative Thermal Oxidizer
SJVAPCD	San Joaquin Valley Air Pollution Control District
SS	Shift Supervisor
VOC	Volatile Organic Compound

Odor Management Plan

1.0 EXECUTIVE SUMMARY

The purpose of this OMP is to detail the specific activities, best practices, and response measures that will be implemented to prevent exposure of the public to potential odor impacts resulting from the addition of a fourth pet food production line at Diamond Pet Foods-Ripon (DPF-Ripon).

Since mid-2012, DPF-Ripon has produced dry pet food for various clients and markets at their facility located at 942 South Stockton Avenue. Since that time, the local area communities have noticed and complained to the San Joaquin Valley Air Pollution Control District (SJVAPCD) and the City of Ripon about pet food odors in the air.

Diamond has actively sought to remedy the odors, first by installing a Cold Plasma Injection System in 2014, and ultimately, in 2018, by replacing the Cold Plasma Injection System with a Regenerative Thermal Oxidizer (RTO) System consisting of three Durr Systems RL-60 natural gas-fired RTOs. The Durr RL-60 RTO was chosen because the system has the highest odor abatement level, is highly energy efficient, and simple, with only a single moving part (a rotating shaft/valve assembly).

The RTO System was specifically designed to treat 100% of the pet food production odors from all sources of production exhaust which may be associated with anywhere from 1 to 4 simultaneously operating lines. Prior to the installation of odor abatement equipment, the exhausting of odorous pet food production air was incidental to the action of transferring the pet food kibble product through the various manufacturing stages until the product was packaged, sealed, and loaded onto pallets for storage or shipment. Additionally, the RTO System was designed to be, and is now, an integral part of the Plant's operation, as the RTO System was installed with an interlocking operating process logic control function that will not allow pet food production to occur unless the RTO System has sufficient capacity available and is on-line to abate the odorous exhaust.

Since its installation in late 2018, the RTO System has demonstrated, via source testing in January 2019 as well as subsequent testing in May of 2020, removal of over 95% of the volatile organic compounds (VOC), believed to be the source of the odors. In spite of the RTO demonstrating compliance with the 95% VOC abatement requirement at 1,501 F in January 2019, the RTO is operated at a minimum temperature of 1,650 F to optimize the effectiveness of odor abatement. The above-mentioned source testing was conducted according to pre-approved sampling and analysis protocols listed in Table 1-1.

Table 1-1: DPF-Ripon RTO Volatile Organic Compound Sampling/Analysis Protocols

Reference Method	Sample Location	Description of Parameter
CARB-1, 2, 3, 4	Exhaust Stack only	Volumetric Exhaust Stack Flow Rate
EPA Method 3C	RTO Inlet Header, RTO Stack	Concentrations of O ₂ , CO ₂
EPA Modified Method 18	RTO Inlet Header, RTO Stack	C1 – C14 Organic Compounds, (CH ₃) ₂ CO (Acetone)

Table 1-2 presents the 2019 RTO VOC test results as well as the January and May 2020 tests.

Table 1-2: DPF-Ripon RTO Volatile Organic Compound Test Results Summary

Date	RTO Temperature	Average VOC Removal Efficiency
January 23, 2019	1,501°F	97.2%
January 24, 2019	1,650°F	99.8%
January 21, 2020	1,710°F	90.2% ¹
May 14, 2020	1,700°F	97.9%

The above sampling and testing methods resulted in the identification of 136 carbon-based compounds (hydrocarbon/organic compounds) based on the element carbon. As stated previously, it is believed that the odorous compounds are organic compounds, and the odor abatement efficiency is tied directly to the abatement of the organic compounds.

In addition to installing and operating the RTO System, DPF-Ripon developed this site-specific Odor Management Plan (OMP), which includes procedures to monitor and maintain, on a daily basis, the active and passive systems designed to contain and control any and all identifiable odors from the pet food production activities.

Also contained in this OMP are guidelines to continuously monitor the RTO permit condition parameters as well as the Ripon-area odor complaints and the associated weather during the period when the odors were occurring.

Based on the installation and optimal operations of the RTO units, confirmed odor complaints have been reduced from an average of 24 per year (years 2012 – 2018) to 1 per year (2019 and 2020 average basis) since the RTO was installed, as discussed in §4.2.2.

This OMP also includes a progressive response system (Tier 1, Tier 2 and Tier 3) to ensure that any persistent odor issues are appropriately dealt with.

The instructions to guide citizens in filing an odor complaint are also provided in Section 5.6.

2.0 FACILITY INFORMATION

Diamond Pet Foods, Inc. (Diamond) operates a pet food production facility (DPF-Ripon) located at 942 South Stockton Avenue in Ripon, CA. The primary contact for DPF-Ripon is as follows:

DPF-Ripon Plant Manager: Mark Ferguson
Phone: (209) 662-0569
E-mail: mferguson@diamondpet.com
Address: 942 South Stockton Ave, Ripon, CA 95366

DPF-Ripon produces pet food by measuring and loading the meat, grain, water, and other ingredients into steam conditioner units (one per line) where mixing and pasteurization occurs, followed by forming (extruding) the pet food into kibbles, which are then conveyed from the steam conditioners to the dryers and other systems for further processing. At each stage of the production line, the kibble is collected and transported through vacuum tubes to the next part of the process using a blower/cyclone system. Each production line requires four blowers (operating with three exhaust stacks) to allow the vacuum system to move the kibble through the plant. All exhaust

¹ Disputed VOC removal average was claimed to be due to apparent contamination of the sample probe from Test #1. RTO was therefore retested on 5-14-2020, resulting in a 97.9% VOC removal efficiency.

from the pet food production processes is collected into an 80-inch diameter exhaust header and routed to an RTO system for abatement.

DPF-Ripon operates 24 hours per day, 7 days per week, and 363 days per year, with two planned holidays per year, Christmas and Easter.

3.0 ODOR EMITTING ACTIVITIES

3.1 Pet Food Production Emissions

Each pet food processing line is capable of manufacturing various pet food kibble based on the production needs and given recipes. The process begins with a specific pet food kibble recipe. Depending on the recipe, an appropriate amount of each material is dispensed from metering bins, mixed, and transferred into steam conditioners. Each recipe may use a protein, such as beef, chicken, lamb, fish, turkey, bison, pork, venison, duck, quail, or pheasant, added to the steam conditioners and thoroughly pasteurized/steam conditioned to release starches, which act as binding agents for the material. The material is then extruded to form pet food kibble. The freshly extruded moist kibble is transferred via food-grade vacuum takeaway tubing to the stainless-steel conveyor belt that dries the kibble by moving the product through the dryer/dryer-cooler which is part of each processing line.

In the natural gas-fired dryer the kibble is dried as it passes through the drier and ultimately cooled in the drier-cooler. The dried kibble is then transferred to the coating process where the product is coated with either chicken fat or canola oil which acts to bind other nutrients, such as dry digest and probiotics. The coated kibble is cooled further in vertical coolers, then transported to the packaging line bins for feeding the packaging equipment. Each of the pet food processing lines has three production exhausts, one each for the extruder (wet) cyclone, dryer cyclone, and vertical cooler cyclone. These exhausts are responsible for the majority of the pet food odors that have been noticed in the Ripon community.

3.2 Indirect Emission Sources

3.2.1 Raw Material Odors

DPF-Ripon receives and stores the raw materials used for the manufacture of the pet food in appropriate silos/bins equipped with baghouses, which are essentially high-powered vacuum cleaner systems appropriately positioned to collect dust particles (particulate) which may be present as the materials are transferred into storage.

All material is transferred from the storage area by bucket elevators, which feed into the mill tower. All material transfer occurs via enclosed conveyors. All of these materials are received in a dry form, which is readily controlled by the baghouses.

Regarding odors associated with the raw materials ingredients, it is noted that the particulate material from the dry raw materials has a slight grain-like odor, which is generally not considered offensive, as compared with the pet food production (cooking) odors. Since the particulate material has an odor, any control of particulate emissions by the use of baghouses will have the effect of containing the odors, however slight they may be. Since baghouses are installed throughout the facility, the particulate emissions from these materials are minimized, which has the side effect of containing odors as noted above.

The odor control effect from the baghouse particulate control occurs throughout the facility, wherever baghouses for PM abatement are installed and operating.

The meat products are received refrigerated and stored in the refrigerator until used, and thus are an unlikely source for odors. The totes that contain the refrigerated meat are lined with plastic, and once the meat has been transferred into the process, the plastic liners are rinsed and disposed of in the facility dumpsters. As with all garbage dumpsters, there is a possibility of minor garbage-like odors emanating from the dumpsters. However, the dumpsters are located near the RTO units where DPF-Ripon personnel frequent the area, and if an odor is noted from the dumpster, DPF-Ripon will contact the waste collector to pick up and exchange the dumpster. The standard practice is to replace the dumpsters on a weekly basis.

Prior to being mixed and cooked in the steam conditioning units, the raw ingredients are received and stored appropriately either in above-ground silos or bins, or in refrigerated enclosures as in the case of fresh meats which are perishable. Materials stored in the silos include beans, peas, meat meal (various), dried vegetables, grains, etc.

As noted previously, some of these raw materials have a slight odor and could contribute indirectly to the odors in the community. However, the storage protocols require vessels to be closed up and for the transport of the raw materials to be abated by particulate-removal systems.

3.2.2 In-Plant Personnel Areas

The vast majority of odorous emissions are from the pet food production exhausts, as noted in §3.1 above. Although these systems are largely enclosed, the various areas inside the production and storage building of the plant are noted to have varying levels of pet food odors, more or less noticeable, depending on the specific area of the plant. For example, the extrusion room has the strongest pet food odors, but the room is entirely sealed up and any odorous emissions in the room are captured in the product take-up tubes to be ultimately abated by the RTO System.

The odors in the dryer, coating and vertical cooler areas are of a much lower intensity as compared to the odors from either the extruder room or the direct production exhausts. All outside doors to this area are designed to close automatically, and any odors that escape through an open door are brief, of minimal volume (as compared with the production exhaust), and once outside the building are rapidly diluted to levels below detection, before reaching the facility boundary.

Any odors in the packaging lines and product storage areas are even more dilute than the odors of the dryer-coater-vertical cooler room(s) areas and are similar to what might be noticed in a typical pet food aisle of a pet products retail store.

4.0 PRACTICES TO OPTIMIZE ODOR CONTROL

4.1 Durr (Manufacturer) RTO Automatic Maintenance Sequence

The manufacturer automatic maintenance sequence (MAMS), also known as a bakeout is a sequenced procedure which decreases the rotation frequency of the RTO valve thereby allowing the hot RTO exhaust to increase the temperature of the refractory material up to a programmed

maximum outlet temperature to “bake-off” any particulate or condensed material that may be on the “coldface” (outlet) of the refractory, which could make the RTO less efficient.

Manufacturer Recommended MAMS Frequency: Durr Systems does not recommend a specific MAMS frequency, noting that every RTO application is different, and a recommended frequency cannot be predicted. Depending on the application, Durr staff have indicated that operators at other facilities have found success with conducting MAMS at a frequency from monthly to semi-annually.

DPF-Ripon MAMS Frequency: As part of the daily RTO inspection, DPF-Ripon notes if any process indicators such as an excessive temperature differences between the RTO inlet and outlet are noted or if odors are prevalent in the RTO area, a MAMS will be conducted. Additionally, DPF-Ripon inspects the actual exhaust of each RTO unit by conducting a personal odor inspection, or POI (as outlined in Appendix B) on each RTO on a daily basis. This provides an invaluable data point for determining if one or more RTOs needs a MAMS. Since there have been no confirmed odor complaints in 2020, we conclude that MAMS are best conducted on an as-needed schedule, based on daily actual odor inspections. An established regular MAMS event, we believe, may be less effective as the highest priority RTO may not be subjected to the MAMS in lieu of the set schedule for a different RTO. Currently, at least one RTO per month is subjected to a MAMS, and this frequency would be automatically increased if the POI showed the need.

There is no limit to the number of MAMS that can be performed as long as the manufacturer automated sequence is followed according to the PLC programmed actions.

4.2 Administrative Controls: Procedures

4.2.1 Procedural Activities

4.2.1.1 Odor Inspection Procedures – Off-Site: Daily Frequency

When pet food manufacturing is occurring, daily off-site inspections are conducted according to the following protocol. Inspections are conducted on an increased frequency during times when more odors have typically been reported (i.e., winter). The Facility Manager (FM), Maintenance Supervisor (MS), and/or Quality Control Manager (QCM) or designated qualified alternate staff conducts off-site inspections at the following locations, as needed. (Alternate staff are qualified if they have been trained according to the staff training procedures described below.) If an odor is noted, it will be recorded on the off-site inspection record form and addressed by DPF-Ripon management and staff. Blank inspection forms are provided in Appendix C.

Following are the locations where the daily and as-needed inspections will occur:

- Laurelwood neighborhood (East of Highway 99);
- Downtown Ripon;
- Highway 99 Corridor (Jack Tone Road to Hammett Road);
- Schools (Ripon Elementary, Ripon High, Ripon Christian Schools, and Ripona Elementary);
- Other areas around the plant on an as-needed basis.

4.2.1.2 Weather Station Monitoring

A wind direction and speed monitoring system has been installed near the highest point on the hammermill building (tallest building) and is operated on a continuous basis to collect weather data to be used in tandem with the odor complaint records. A sample of the information obtained from this weather station is presented in Appendix D which shows the wind direction and speed at the time of the odor complaint overlaid on a satellite photo of the DPF-Ripon site along with the directional variability associated with the data. This data is developed and carefully reviewed along with the reports for every odor complaint. The information is shared with the SJVAPCD and the City of Ripon.

4.2.1.3 Odor Inspection Procedures – On-Site: **Daily Frequency**

Daily on-site inspections of plant operations are conducted according to the following protocol.

Facility Review: The Project Manager (PM) or designated qualified alternate staff conducts the following facility inspections at the frequency noted below. If any anomalous parameters are observed, they will be recorded on the on-site inspection record form or stored electronically. The PM or designated alternate inspects and takes actions as needed on the following:

- **Process exhaust lines:** The exhaust lines from the extrusion, drying and vertical cooling processes are all inspected for any leaks. If any odors are noted, further inspections are conducted to determine the source.
- **Facility Walk-Through:** Walk-around inspection of main production building doors (as listed on on-site inspection form) to ensure there are no open doors or potential odor escape sources and make general visual observations of the facility operations.

RTO Inspection: The PM or designated qualified alternate staff conducts the following inspections at the frequency noted below. If any anomalous parameters are observed, they will be recorded on the on-site inspection record form or stored electronically. The PM or designated qualified alternate staff inspects and takes actions as needed on the following:

- Control Room (***Daily***, in person or via mobile app): Overview of plant operations, observing the following:
 - Product being produced on each line and production rate (recorded in shift logs);
 - RTO average operating temperature (approximately 1,650°F² per DPF-Ripon setpoint): If RTO operating temperature is less than 1,650°F, the following actions should be taken:
 - Evaluate gas usage data (ensure reasonable readings are being recorded);
 - Inspect rotary valve (ensure rotation); and

² The minimum RTO combustion chamber temperature is 1,650°F, as required in permits N-8234-4-12, ‘-5-12, and ‘-6-12.

- Check RTO inlet temperature, which should be approximately 145°F. If <100°F, confirm that fans are on or check dryer burner settings;
- RTO Inlet and Outlet Temperatures: Target temperature difference between inlet and outlet temperature is 80 to 100°F. If the temperature difference is higher than 100°F, management will review options to correct, including initiating a MAMS³; and
- RTO blower frequency (Hz): Normal is 42 Hz with a range of 40 to 45 Hz (three RTOs) or >50 Hz (two or fewer RTOs);
- RTO Operating Parameters are continuously monitored and recorded by the continuous emission rate monitoring system (CERM) which included a digital acquisition and handling system (DAHS). Reports from the DAHS are reviewed *daily* either in person or via mobile application. Sample DAHS reports, provided in Appendix E, assist DPF-Ripon in optimizing the RTO system operation. The following parameters provide a sample of the parameters monitored for the CERMS reports:
 - RTO Operating Status;
 - RTO Differential Optical Absorption System (DOAS) Calibration Status;
 - RTO temperatures;
 - RTO fuel usage & heat input;
 - RTO Exhaust Stack(s) Flow, Temperature and Moisture;
 - NOx Emissions.
- RTO POI (Conducted *daily*): The POI is conducted by a designated DPF-Ripon employee who conducted an unbiased olfactory review of the odors in real-time from each RTO exhaust. Based on the results of the POI, a decision will be made on whether one or more of the RTOs needs servicing by conducting a MAMS. In this test the odor coming directly from the abated RTO exhaust is sampled and tested and compared against the other exhausts to identify if any performance reduction trends are occurring.

Airflow Switches (*Weekly* Frequency): Check airflow switches behind the RTO control room for possible moisture buildup. Initiate moisture removal as applicable.

³ During the RTO Manufacturer Automatic Maintenance Sequence (MAMS), the RTO Unit that is the subject of the MAMS is isolated from the rest of the RTO units (taken out of production), and the plant production emissions abated by the remaining RTOs. It should be reiterated that the plant will automatically shut down certain production units to reduce production exhaust (“called “load shedding”) in the event that there is insufficient RTO capacity to abate the odors. This ensures the plant will never operate pet foods without the appropriate level of RTO System odor abatement capacity.

4.2.2 Staff Training Procedures

All inspection and training procedures will be maintained in the Qualtrax compliance software. The software will manage compliance schedules, personnel training, and document control.

4.2.2.1 Off-Site Odor Inspection Training

At a minimum, the FM, MS, QCM, and one designated alternate staff will be trained to conduct off-site odor inspections. Training will include consistent location identification and instructions for completion of the off-site inspection record form. Odor identification will be evaluated using the odor category checklist provided in Appendix C. Off-site odor inspection training will occur once prior to staff member's initial inspection.

4.2.2.2 On-Site Odor Inspection

- Facility Inspection training for the PM and designated alternate staff will occur during normal onboarding training or when new personnel are designated to this role. Training will consist of instructions regarding the items that need to be observed and completion of the on-site inspection record form. Training will also be provided to the appropriate maintenance personnel in order to ensure that the inspections occur during off hours, such as over the weekend, or when the site PM is unable to be at the site.
- RTO Inspection training for the PM and designated alternate staff will occur during normal onboarding training or when new personnel are designated to this role. Training will consist of instructions regarding the correct RTO operating parameter ranges, potential resolutions for parameters out of range, chain of command if corrective actions need to be taken, and completion of the on-site inspection record form.
- In-Stack RTO POI training for the PM, MS, QCM, and designated alternate staff will occur annually and prior to staff member's initial sampling. Training will consist of operation of the odor cup sampler, identification and categorization of odors, and completion of the odor checklist. Odor identification will be evaluated using the RTO odor terms and intensity scale on the checklist.

4.2.2.3 Maintenance Activities

Training for maintenance activities will continue to be conducted and tracked through the Qualtrax compliance software. The training will include a requirement to be cognizant of minimizing potential odor-causing activities.

4.2.2.4 Odor Complaint Response

Odor complaint response training for the FM, PM, QCM, SS, and designated alternate staff will be encompassed in the on-site odor inspection training. In addition, this training will focus on quick assessment of potential odors with the goal of determining application of corrective measures in a timely manner. (See description under Odor Complaint Tracking and Response below for additional details related to the odor complaint response system.)

4.2.2.5 SJVAPCD Orientation

It is recommended that new SJVAPCD inspectors tour the DPF-Ripon facility to familiarize themselves with the process and potential odor sources. SJVAPCD inspectors should contact the FM or the PM to arrange the orientation.

The SJVAPCD procedures for investigation of odor complaints is provided for reference purposes as Appendix F.

4.3 Maintenance Frequency: *Annual (Per Manufacturer Recommendation)*

The following annual Manufacturer-recommended maintenance is performed when the manufacturer visits the site and conducts both on-line and off-line inspections of the RTO systems:

- Perform annual visual inspection of entire RL-60 RTO system;
- Check diverter valve: stator/rotor surfaces;
- Inspect castable refractory;
- Check vertical valve movement
- Check all relays and contactors for wear
- Check burner mounting plate and tile assembly for cracks. Replace;
- Inspect/re-lubricate the thrust bearing carrier and housing
- Check all 460V terminal connectors/circuit breakers for tightness;
- Clean operating level block internals;
- Replace air cylinders with new cylinders and rebuild the removed cylinders;
- Exhaust fan coupling;
- Valve gear teeth lubrication/tooth wear;
- Inspect seal rings/spline housing;
- Burner throttle valve micro-ratio valve cam;

4.4 Engineering Controls

4.4.1 Description of Best Available Control Technology (BACT)

As noted in Section 3.0 of the Referenced Odor History Report for Pet Food Manufacturing Facility (dated May 2020), studies of odor emissions from pet food indicates that the chemicals contributing to the odors are organic compounds capable of being volatilized (i.e., emitted into the air). These odorous volatile organic compounds (VOC) are likely released during the cooking and drying stages of pet food production.

Air districts throughout California routinely require emission controls on sources of VOC emissions from a wide variety of processes. Within the context of the air permitting for new or modified sources of air emissions, the air agencies may require the installation of “Best Available Control Technology” (BACT) in order to satisfy New Source Review (NSR) requirements for new or modified sources of emissions. BACT determinations are periodically published so that the regulated community has visibility to the requirements.

Yorke reviewed the BACT determinations from four major air districts in California [San Joaquin Valley Air Pollution Control District (SJVAPCD), South Coast Air Quality Management District (SCAQMD), Bay Area Air Quality Management District (BAAQMD), and San Diego Air Pollution Control District (SDAPCD)]. The findings are shown in Table 2. Also, the California Air Resources Board (CARB), U.S. EPA, and Texas Commission on Environmental Quality (TCEQ) databases were reviewed; no additional BACT determinations were identified.

No BACT determinations specific to pet food manufacturing were identified.

To summarize, Yorke's analysis indicates that the most applicable BACT for the pet food production process would be an afterburner with a minimum residence time of 0.3 seconds and a minimum combustion chamber temperature of 1,400°F. The DPF-Ripon facility operates the RTOs at 1,650°F with a minimum residence time that exceeds the recommended 0.3 seconds, hereby resulting in a level of performance that exceeds BACT.

4.4.2 Components of Engineering Controls

As noted previously, in late 2018, DPF-Ripon installed an RTO system consisting of three thermal oxidizer units, which operate in parallel to abate the odors from the existing 3-production line exhaust (nine exhaust stacks combined into a common header). Although the RTO system is abating the current 3-line operation, the System was designed to abate the odors from 4-production line operation. This installation was completed and started up in December of 2018.

The exhaust from the production lines is vented to a common ducting header that vents the process exhaust to the RTO system. Currently, based on 3-line production, the estimated residence time in the RTO combustion chamber is 2.33 seconds, which is over seven times the BACT-specified retention (residence) time of 0.3 seconds. With the installation of the fourth production line, the residence time in the combustion chamber will be 1.75 seconds, which is more than five times the BACT-specified minimum residence time.

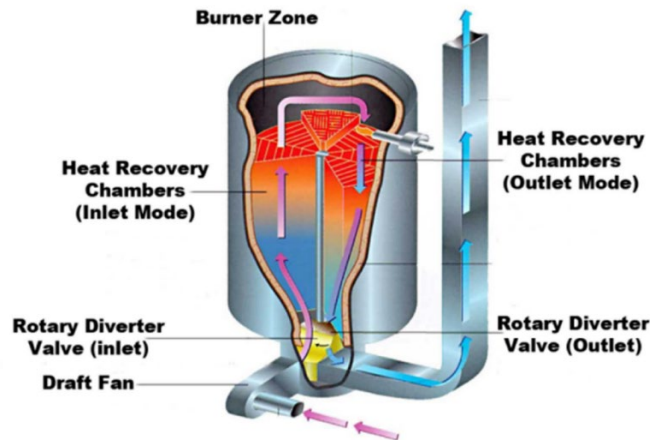
Additionally, although the BACT-recommended oxidation temperature ranges from 1,200°F to 1,400°F, DPF-Ripon operates the RTO units at a minimum temperature of 1,650°F. Additional details on the design and operating parameters are provided in the Odor History Report noted in the list of References.

The Durr RL-60 RTO System for DPF-Ripon is designed for efficient odor abatement and fuel use. Each RTO includes 12 separate ceramic heat-exchange beds arranged radially over a proprietary rotating diverter valve. After the exhaust gases from all production lines are thoroughly mixed in the RTO feed header, the incoming odorous air is introduced into the respective RTO through the bottom of the unit. The inlet air from the RTO feed header is drawn upwards through five of the 12 beds, which have been previously preheated. Heat is transferred into the odorous air as it passes through the preheated ceramic bed and is further heated to the temperature setpoint in the combustion chamber near the top of the RTO, where a natural gas-fired burner is operated to complete the oxidation process.

Hot, clean exhaust is drawn downward through five adjacent ceramic beds to transfer the thermal energy, preheating the media, before being exhausted to the atmosphere through a stack. The two "spare" ceramic beds serve to prevent cross-contamination between the

inlet and outlet sections and to ensure the high destruction efficiency of the RTO. A schematic of the RTO Flow is shown in Figure 4-1, below:

Figure 4-1: Durr Regenerative Thermal Oxidizer (RTO) Flow Schematic



The rotary diverter valve slowly turns which allows ceramic beds that have been cooled by transferring heat to the incoming air to then be heated back up to become a preheating bed by the outgoing exhaust. Since the rotating valve is the only moving part, there is very little wear to the bearing surfaces, and the reliability/longevity of the beds and the rotating valve are extremely high.

To ensure ongoing reliability and appropriate operation, the temperature difference between the incoming air and the outgoing exhaust is monitored and expected to be between 80-100°F, which indicates that good heat transfer is occurring. In the event the temperature difference is above 100°F, staff conducts odor testing to verify that the RTO is operating properly, then if the temperature difference remains high, will initiate a manufacturer automatic maintenance sequence (MAMS) which returns the ceramic bed to clean condition and full heat transfer and odor abatement capability.

If the temperature difference is less than 80°F, staff will conduct odor testing of the RTO exhaust to develop a baseline reading. If the exhaust from the RTO is determined to be more odorous than normal, the RTO is isolated from the system, visually inspected and possibly shutdown for internal inspections.

The three Durr model RL-60 RTOs operate in parallel, with the plant production exhaust entering the units from a common header. Each of the Durr model RL-60 RTOs is a unique single vessel that is designed to destroy more than 95% of the volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) potentially found in industrial process exhaust streams. With the installation of the RTO System, the plant/RTO process control logic requires the RTOs to be online with sufficient capacity to treat the exhaust from the plant, before allowing the production processes to be started up and operated to produce pet food.

The RTO air permit issued to DPF-Ripon by the SJVAPCD (Authority to Construct/ATC N-8234-4-10, '-5-10 and '-6-10) required the RTOs to operate at a temperature sufficient to achieve 95% VOC abatement. Based on the SJVAPCD-approved initial source testing conducted on 1-23-2019, DPF-Ripon determined that RTO operation at a temperature of

at least 1,500 degrees Fahrenheit (°F) would easily achieve the required 95% VOC destruction efficiency.

However, DPF-Ripon learned, from the subsequent RTO compliance source testing conducted on 1-24-2019, that at an operating temperature of 1,650 F, 99% VOC abatement was achieved. Based on this higher degree of VOC (and hence odor) control, DPF-Ripon has voluntarily proposed 1,650 F as the minimum RTO combustion temperature. This minimum temperature is reflected in the final revised RTO ATC as issued on 12-29-2021 (N-8234-4-12, ‘-5-12 and ‘-6-12).

Additionally, as required by the SJVAPCD Permit to Operate (PTO), annual testing to demonstrate continued compliance with the VOC emission limits and percent abatement requirements was conducted in 2020. Runs 2 and 3 of the tests showed that VOC levels in the RTO exhaust were below the level of detection, although the result from sample run 1 was high enough to negatively impact (reduce) the overall average VOC abatement to 90.16%. This sample run result was believed to be caused by the use of a contaminated sample probe, therefore DPF-Ripon retested the RTO on May 14, 2020 which showed a VOC abatement efficiency of 97.9 %, which showed compliance with the 95% minimum abatement efficiency.

Additionally, the RTOs were designed and constructed with a supplemental 8 feet of vertical combustion chamber volume, thereby providing additional air abatement residence time at the RTO internal temperature. This has the effect of both further oxidizing carbon monoxide (CO) into carbon dioxide (CO₂) and increasing the abatement (oxidation) of the odorous air contaminants/VOCs.

Beyond the 2019 and 2020 compliance source testing, DPF-Ripon has adopted certain regular inspection practices (listed in this Odor Management Plan) which requires daily RTO and facility-wide (site) equipment and odor inspections to minimize odors. Part of these practices include a frequent review of the exhaust gas odors from each RTO, to determine which unit is in need of a MAMS. Based on this, the RTO deemed to be most in need of maintenance is given highest priority for the initiation of the maintenance sequence.

Odor Complaint Tracking: In addition to the in-plant and offsite inspection practices, DPF-Ripon also actively tracks, records, provides the SJVAPCD and City of Ripon with weather data to assist in the review of odor complaints filed with the SJVAPCD. A sample of the odor tracking records from late 2020 and early 2021 is included as Appendix G. Table 4-1 provides a summary of the confirmed vs unconfirmed odor complaints for the entire period of DPF-Ripon operation.

Table 4-1: DPF-Ripon Odor Complaint History vs RTO Installation

Operating Periods	Confirmed Odor Complaints	Total Odor Complaints
2012-2018 (pre-RTO)	173	528
2019	2	18
2020	0	10

4.4.3 Pet Food Production Lines/RTO Process Logic

The RTO System was designed to be an integral part of the entire facility operation. As such, the pet food production lines cannot be operated unless the RTO Units are operating at the temperature setpoint with sufficient flow capacity to abate the production line exhaust gases.

Therefore, control of the RTO is digitally integrated into the overall operation process logic ensuring that the RTOs operate as a unit, with the volumetric intake flow to each RTO controlled by a variable speed intake process air fan that maintains a pressure setpoint in the common 80-inch exhaust header.

If the process air flow from the plant is reduced due to one or more lines being shut down, then the three RTO intake blowers will ramp down to maintain the pressure setpoint in the header. In the event that the supply volume of gas from the plant decreases further, the RTO is designed to isolate one or more RTO unit(s) from the system to maintain the proper flow rates, pressures and abatement efficiency. The RTO system is designed to operate as needed to abate the odors from anywhere from one to four production lines, with design allowances for any combination in between.

This operation occurs due to the algorithms built into the process logic controllers (PLCs) of the RTO system and the production facility which review the overall RTO volumetric abatement capacity in light of what is being requested for production at the plant. If the PLC determines that sufficient RTO capacity is available, the PLC will allow the additional production to occur. Only if the additional RTO capacity is operating or is available will the PLC allow the plant to increase production.

5.0 DPF COMPLAINT TRACKING AND RESPONSE

5.1 General Reporting: Facility Overview

The main principles underlying every odor complaint (whether confirmed or not) is 1) that SJVAPCD communicate with DPF-Ripon as soon as possible that an odor complaint has occurred, and 2) that every odor complaint, be investigated, remediated (if verified as pet-food) and reported according to an established criterion. The odor complainant should provide the agent taking the complaint with the date, time and general neighborhood (location) of the odor event.

Once notified that an odor complaint has been submitted to the SJVAPCD, the operator shall respond according to the Tier 1, 2, or 3 methodologies, depending on the specifics of the event.

The operator will submit to the City of Ripon a summary log of all odor complaints occurring during the most recent calendar month.

In addition to the measures described below, in response to odor and other nuisance impacts, the City shall retain all rights and remedies available under the Ripon Municipal Code, including, but not limited to, Chapters 1.10 and 1.12.

5.2 Tier 1 Odor Response

If an odor complaint is received (either confirmed or unconfirmed), the Operator shall initiate a system check **within 2 hours of DPF's receipt of the complaint** to identify any potential cause of odor.

If an issue with normal operation is identified that could be the cause of potential odors, the necessary cleaning, mechanical adjustments, repairs, or other routine modifications shall be made to resolve the issue.

The Operator shall provide a follow-up report to the SJVAPCD, and the complainant (if requested by the complainant) of the findings of the systems check, including whether an odor issue was identified, and, if so, the steps taken to remedy the issue. These findings will also be entered into the complaint log and reported to the SJVAPCD.

The City will be notified by DPF-Ripon via email within one business day of receiving notice of the verified odor complaint event and the ultimate outcome.

- a. Tier 1 Specific Actions to be initiated by Operator within 2-hours of odor complaint notification, and to be completed by the close of the following business day:
 - Conduct on-site walk-through (checking doors/openings, etc.) noting any unexpected odors or other findings.
 - Review RTO operating Parameters, including:
 1. RTO combustion zone temperature (compare temperature vs setpoint);
 2. Inlet temperature (from inlet header) & Outlet temperature difference. The temperature difference should be in the range of 80-100 F. If the temperature difference is outside of this range, the temperature differential will be reviewed with the DPF-Ripon Project Manager (PM), who will then take the appropriate actions, which may include Manufacturer Automated Maintenance Sequence (MAMS);
 3. Check wind speed and direction at the time of the odor complaint. Provide a copy of the DPF-Ripon weather report to the SJVAPCD to assist in determining if the weather was consistent with stated general location of the odor event. A sample weather report from an odor complaint filed on March 8, 2021, is provided in Appendix D.
 4. Conduct RTO exhaust Personal Odor Inspection (POI) procedure (using DPF-Ripon odor inspection procedure OMP-1⁴ and equipment to sample/compare odors from RTO-1, RTO-2 and RTO-3).
 - Conduct MAMS on most odorous RTO exhaust then conduct follow-up POI odor test of RTO exhaust after conducting MAMS.
- b. Record findings/steps taken in Odor Complaint Log File.
- c. Report findings/measures taken to SJVAPCD via email by the close of the following business day after receipt of complaint confirmation. Report the event and findings to the City via the monthly Odor Complaint Report.

5.3 Tier 2 Odor Response

If, after an RTO systems check and any necessary remedies have been implemented according to the Tier 1 protocol, in the event that an additional (verified) odor complaint is received (or an

⁴ OMP-1 Personal Odor Inspection (POI) procedure is provided in Appendix B.

unusual increase in unconfirmed complaints that have been reviewed and agreed upon by the City and DPF-Ripon) within the same week from the same or new complainants that could suggest that an odor issue remains unresolved (as determined on a case-by-case basis by consultation between the SJVAPCD and DPF), within 2 hours of DPF's receipt of the additional confirmed odor complaint (or determination by the City and DPF-Ripon that an unusual increase in complaints, including unconfirmed complaints, has occurred), the Operator will initiate the following Tier 2 Odor Response actions.

- a. Tier 2 Specific Actions to be taken by Operator and concluded by close of following business day:
 - Conduct Level 1 Response Steps (if not already performed).
 - Conduct examination of all exhaust lines including fresh air dampers to ensure there is no leakage of untreated production exhaust.
 - Initiate MAMS on all RTO units. The MAMS will be performed on one RTO at a time.
 - Perform post MAMS POI on all RTO units. Record results.
 - If any RTO has stronger odor than the others, operator to take appropriate measures to improve odor abatement, including increasing the RTO combustion temperature in 50°F increments (above the minimum 1,650°F minimum temperature setpoint), and retesting the odor using the POI procedure.
 - Review pre-MAMS and post-MAMS inlet and outlet exhaust temperatures.
 - As soon as practical, contact the RTO manufacturer (Durr Systems) to review any anomalous findings/further recommendations for cleaning/adjusting RTO System via conference call.
- b. Record findings/steps taken in Odor Complaint Log File.
- c. Report findings/steps taken to SJVAPCD via email within 1 business day. Report the event and findings to the City via the monthly Odor Complaint Report. A sample monthly Odor Complaint Report submitted to the City of Ripon is provided in Appendix H.

5.4 Tier 3 Odor Response

If, after implementing all measures above, additional verified odor complaints are received from the same or new complainants which suggest the same odor issue remains unresolved, the operator shall coordinate with the City and SJVAPCD (as applicable) to determine appropriate additional measures. Discussions with the appropriate parties will be initiated as soon as practicable⁵, with DPF providing progress updates to the City and/or SJVAPCD. Such measures include, but are not limited to, a full diagnostic of the RTO by the manufacturer (and/or other qualified equipment diagnostician) or upgrades or expansions of the odor abatement system.

Until such time as the odor is appropriately abated to the performance levels that were demonstrated by the RTO system during the period from January 2019 through December 2020,

⁵ City of Ripon and or SJVAPCD may not be available over the weekend or on holidays.

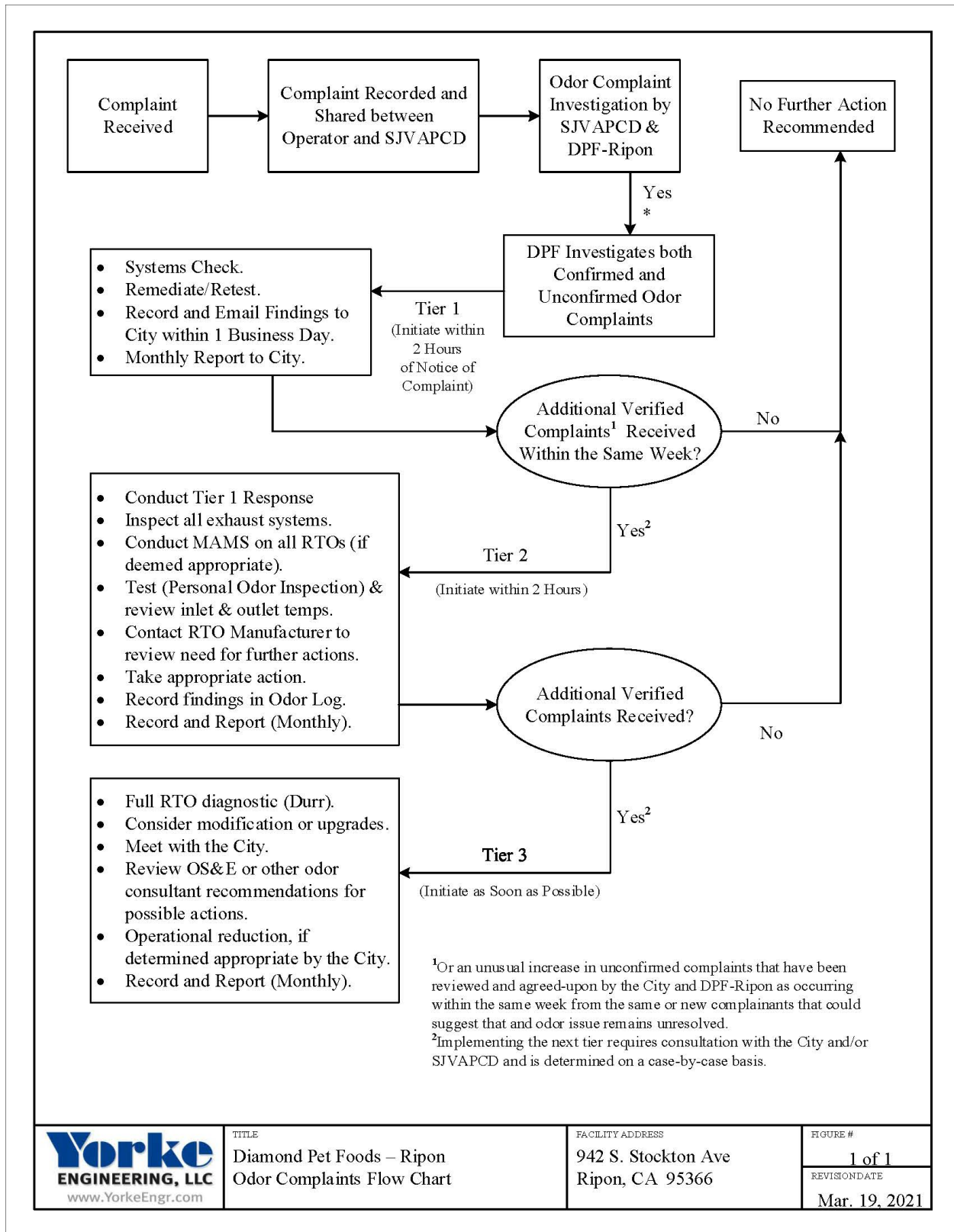
the City and DPF-Ripon will meet and confer and the City will determine, depending on the severity of the odor issue, if a decrease in the actual throughput of the DPF facility by (up to) the equivalent of the capacity of one production line would be helpful in reducing odors. The following Tier 3 Response actions will be initiated, as apropos, in the event that both Tier 1 and 2 Response actions have been completed and there are still additional confirmed odor complaints:

- a. Tier 3 Specific Actions to be taken by the Operator within 30 days of determination that Tier 3 Odor Response is necessary:
 - Operator to meet and confer with RTO manufacturer (Durr Systems) to determine if on-site inspection is needed, or if additional cleaning measures or physical modifications to the current technology are available/necessary.
 - Operator to review the maintenance history of the RTO System to identify if one or more RTO units (including visual and/or smoke test of ceramic heat transfer media) needs to be serviced. Components to be evaluated include:
 1. RTO ceramic (inspect for integrity, possible contamination or blockages, etc.);
 2. RTO rotating valve sealing performance;
 3. RTO metal thermal cycles/metal structure;
 4. RTO burner turbulence/mixing/thermal uniformity;
 5. RTO inlet blower variable frequency drives. Compare VFD/blower performance/flow uniformity on all RTO Units; and
 6. Conduct design review.
 - Review RTO setpoints to ensure that appropriate capacity according to best design practices exists.
 - Review facility blower & product movement through plant with DPF Corporate design group to identify feasibility of revised blower exhaust rates.
 - Determine which kinetic parameter (RTO temperature, residence time, mixing efficiency) needs to be improved/increased.
 - Review process control logic to determine if improved RTO odor abatement could be accomplished by software modifications.
 - Prepare timeline to implement necessary design/hardware changes.
 - Reduce production: Depending on the severity of the additional and ongoing confirmed odor complaints, the operator will meet with the City Code Compliance Division (CCD) and the City will determine if decreasing production will be beneficial. This could include a temporary reduction in production up to a maximum equivalent of 25% of the actual four-line production capacity.
- b. Record findings/steps taken in Odor Complaint Log File.
- c. Report findings/steps taken to SJVAPCD and City via written report.

5.5 DPF Compliance Tracking Flowchart and Contacts

The following flowchart and associated contact table provides a graphical approach to the Tiered responses detailed in §5.1-5.4.

Figure 5-1: Progressive Tier Response Flowchart



5.6 Methods for Filing Odor Complaints

Members of the community who encounter pet food odors are encouraged to file complaints with SJVAPCD using one of the following methods.

- File a Complaint Online with SJVAPCD, by entering the following web address:

<http://www.valleyair.org/busind/comply/complaint.htm>,

Click on: **SUBMIT AIR POLLUTION COMPLAINT**

or

- File a Complaint by Phone with SJVAPCD: (800) 281-7003

It is recommended that complaints be filed with the SJVAPCD; however, complaints can also be filed with the City of Ripon (Planning Department: 209-599-2108) and/or with DPF-Ripon via the following numbers: DPF Project Manager (Joe Garcia) at 209-765-4741 or Shift Supervisor at 209-602-9379.

Note that the SJVAPCD will inform DPF-Ripon when an odor complaint is received, but SJVAPCD does not disclose the details of ongoing complaint investigations to third parties. DPF-Ripon will email the City of Ripon within one business day of receipt of a confirmed odor complaint and will also prepare/submit to the City a monthly report for the previous month in which any odor complaint(s) were received.

6.0 OMP PREPARERS AND AGENCY CONTACTS

This document was prepared under the direction of the City of Ripon by Yorke Engineering, LLC, in coordination with Ascent Environmental, Inc, and in consultation with Diamond Pet Foods-Ripon. Following is a detailed list of those who participated in the preparation and review of the document.

6.1 OMP Preparers

Yorke Engineering, LLC

Randy Frazier, PE, CAPP

Julie Mitchell

Michael Dudasko, CPEA, QISP

Jessica Mohatt, MS, CAPP

Principal Engineer
Senior Air Quality Scientist
Principal Engineer
Engineer

Ascent Environmental, Inc

Michael Parker, AICP

Principal

Diamond Pet Foods – Ripon

Mark Ferguson

Joe Garcia

Plant Manager
Project Manager

Environmental General Counsel

Jodi Smith, ESQ (Diamond Pet Foods – Ripon Counsel)

Partner, EGC

6.2 OMP Reviewing Agency (CEQA Lead Agency)

City of Ripon

Ken Zuidervaart

Director of Planning & Economic Development

6.3 OMP Review Frequency

The OMP is reviewed on a regular basis, at a frequency not to exceed every five (5) calendar years. A form used as a template for conducting this review is included as Appendix I.

7.0 REFERENCES

Ontario. 2017. Example Odour Control Report for a Pet Food Manufacturing Facility that Cooks and Dries Animal Products. May 2017.

San Joaquin Valley Air Pollution Control District (SJVAPCD), 2007. Complaint Response Guidelines. COM 1140, February 8, 2007.

Yorke Engineering, 2013. *draft* Odor Abatement Study for Diamond Pet Food of Ripon. March 2013.

Yorke Engineering, 2020. Odor History Report for Pet Food Manufacturing Facility; 5-19-2020.

APPENDIX A – RIPON AREA CITIZEN ODOR REPORTING OPTIONS

The following three options are provided for persons who wish to file an odor complaint in the town or Ripon.

1) San Joaquin Valley Air Pollution Control District (SJVAPCD)

Members of the community who encounter pet food odors are encouraged to file complaints with SJVAPCD using one of the following methods.

- File a Complaint Online with SJVAPCD:
<http://www.valleyair.org/busind/comply/complaint.htm>,

Once on the page, click on: **SUBMIT AIR POLLUTION COMPLAINT**

- File a Complaint by Phone with SJVAPCD: (800) 281-7003

It is recommended that complaints be filed with the SJVAPCD; however, complaints can also be filed with the City of Ripon and/or DPF-Ripon as follows:

2) City of Ripon

Members of the community may also contact the City of Ripon at:

- Planning Department: (209) 599-2108

3) Diamond Pet Foods – Ripon (DPF-Ripon)

Members of the community should also feel free to file an odor complaint directly with DPF-Ripon, who will respond with an investigation into the cause of the odor and the remedy.

- DPF Project Manager (Joe Garcia): (209) 765-4741, or
- Shift Supervisor: (209) 602-9379.

APPENDIX B – RTO PERSONAL ODOR INSPECTION (POI) PROCEDURE

Odor Comparison Test Procedure **OMP-1**
RTO EXHAUST
PERSONAL ODOR INSPECTION (POI)

REF: Permit Units N-8234-4-10, N-8234-5-10, N-8234-6-10

1. APPLICABILITY

- 1.1. This method is used to determine the maintenance priority for the Diamond Pet Foods-Ripon (DPF-Ripon) regenerative thermal oxidizers (RTOs).

2. PRINCIPLE

- 2.1. A sample of exhaust is continuously extracted from the RTO exhaust line, cooled and sampled by a trained DPF-Ripon Sample Technician (DRST). The RTO that is determined to have the strongest odor will be assessed to determine if the Manufacturer Automatic Maintenance Sequence (MAMS) is needed.

3. RANGE AND SENSITIVITY

- 3.1. The minimum and maximum measurable concentrations of odorous sample depends on the specific detection level of the DRST.
- 3.2. If any DRST is unable to establish a baseline of detection, an alternate trained DRST technician is chosen to conduct the review.

4. INTERFERENCES

- 4.1. In the event the DRST is unable to smell either via cold or allergies, an alternate trained DRST is chosen.
- 4.2. DRST should not be exposed to any highly odorous area such as the interior of the anhydrous ammonia SCR (boiler) injection ports or the anhydrous ammonia storage tank within 30 minutes of RTO exhaust sampling.

5. APPARATUS

- 5.1. PPE: Hard Hat, Safety Glasses, Leather or Thermal-Protective Gloves.
- 5.2. Sample Shunt Tubing Wand (see ½" curved stainless steel tubing).
- 5.3. Sample Collection/Testing Detection Housing (see Figure OMP-1B).
- 5.4. Sample conditioning (cooling/sampling): The assembly of this system is shown in Figure OMP-1B. The sample conditioning and capture system (wand) consists of approximately 3 feet of ½" diameter stainless steel tubing, curved for sample capture, with a funnel-shaped detection housing where the cooled sample exhaust may be analyzed by the DRST. Except as specified, all materials which come in contact with either the sampled exhaust or the heated exhaust housing (exhaust duct) must be constructed of stainless steel.
- 5.5. Sample Detection Requirements: Two DPF-Ripon Sample Technicians (two DRSTs). **NOTE: RTO odor testing according to OMP-1 should not be performed during MAMS or when the exhaust duct temperature exceeds 230°F.**

Figure OMP-1A
RTO Odor Sample Port Location

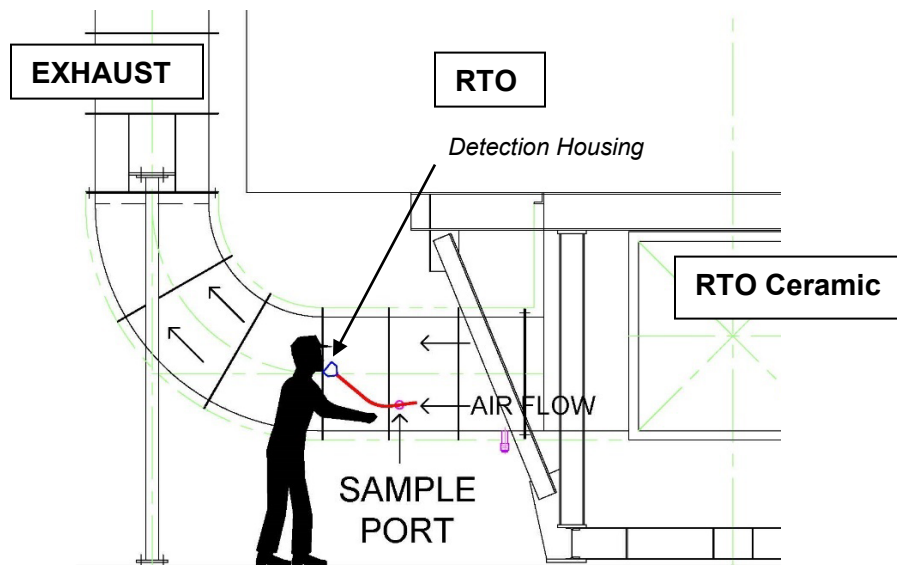


RTO Exhaust Odor Sampling Port

RTO Exhaust Odor Sampling Port
Close-Up View



Figure OMP-1B
RTO Odor Sample Image



6. PRE-TEST PROCEDURES

- 6.1. Review RTO operation: RTO odor sampling may be performed only when the RTO is operating during steady state operating conditions. The RTO exhaust temperature will be variable and will range from 210°F to 230°F. **NOTE: RTO odor testing according to OMP-1 should not be performed during MAMS or when the exhaust duct temperature exceeds 230°F.**
- 6.2. Insert the odor sampling wand as shown in Figure OMP-1B, with the curved sample wand directed upstream to capture sample using the flow momentum.
- 6.3. Ensure a suitable exhaust stream is established in the Detection Housing for the analysis.
- 6.4. Confirm the RTO is operating at steady state operation and that the exhaust temperature does not exceed 230°F.

7. SAMPLING

- 7.1. The DRST should conduct the odor analysis the exhaust stream by slowly drawing closer to the sample detection housing until a slight breeze from the cooled sample is felt coming from the wide end of the detection housing.
- 7.2. Gently draw the sample through the nose for approximately 15 seconds.
- 7.3. Clear the nose by breathing fresh air away from the exhaust for approximately 30 seconds and perform sampling per 7.2 again. Repeat this process until 4 tests are completed. Record a description of the odor detected.
- 7.4. Conduct this process on all three RTOs and compare the results.
- 7.5. Results should be discussed to determine if any maintenance is needed on any RTO and if so, the order of RTO maintenance.

8. REPORTING

The results from the testing should be recorded on the enclosed sample and analysis sheet (Figure OMP-1C).

Figure OMP-1C

Test Date: _____ [blank]: _____	DIAMOND PET FOODS – RIPON ODOR MANAGEMENT PLAN Summary of Odor Test Results	Test Times: RTO-1: _____ RTO-2: _____ RTO-3: _____
Source Information/Weather Conditions/Etc.		DRST Representatives
Weather Conditions (°F, Wind, etc.)	DPF-Ripon Sample Technicians DRST-1: DRST-2:	
RTO-1 Product:	RTO-2 Product:	RTO-3 Product:
Applicable Regulations:		

Source Test Results and Comments

RTO 1				
Scent	None	Weak	Average	Strong
Overall Odor Intensity				
Pet Food				
Burnt Oven				
Natural Gas				
Other: _____				

RTO 2				
Scent	None	Weak	Average	Strong
Overall Odor Intensity				
Pet Food				
Burnt Oven				
Natural Gas				
Other: _____				

RTO 3				
Scent	None	Weak	Average	Strong
Overall Odor Intensity				
Pet Food				
Burnt Oven				
Natural Gas				
Other: _____				

Comments:

DPF-Ripon Team Leader	Reviewed by	Date	Approved By	Date

APPENDIX C – ODOR INSPECTION FORMS

ON-SITE ODOR INSPECTION RECORD

Diamond Pet Foods of Ripon (DPF-Ripon)

DAILY

Inspection Date:
 Inspection Time:

Inspection Type (check box) : daily
 recheck

complaint
 other

Inspection Conducted By:
 Inspection Assisted By (if applicable)

COMPLAINT INFORMATION (IF APPLICABLE)

Complaint Date:
 Complaint Time:
 Approximate Location:
 SIVAPCD Inspector Contact:
 Complaint Status: (circle one) Confirmed / Not Confirmed

METEOROLOGICAL DATA

Wind Direction (from):
 Wind Speed:

Weekly Basis: (Every Monday) DPF-Ripon downloads and transmits weather data to Yorke Engineering

PRODUCTION RECORDS

	OPERATING	PRODUCT
Line 1	<input type="checkbox"/> Y/N	<input type="text"/>
Line 2	<input type="checkbox"/> Y/N	<input type="text"/>
Line 3	<input type="checkbox"/> Y/N	<input type="text"/>

RTO/SOUTH AREA INSPECTIONS

	MODE*	FAN HZ	INLET TEMP	OUTLET TEMP	COMB TEMP	GAS SCFH	EXHAUST STACK ODOR INSPECTION (comment)	COMMENTS
RTO-1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
RTO-2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
RTO-3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
FAT TKS	COMMENTS:							<input type="text"/>

- *MODE 0: Burner Off (shutdown)
- *MODE 1: Steady State
- *MODE 2: Warming Up
- *MODE 3: Set Back
- *MODE 4: Warming Up
- *MODE 5: Bakeout (MAMS)

PRODUCTION BUILDING DOORS

	"AS-FOUND" CONDITION		COMMENTS/ACTIONS TAKEN
Rooftop (Personnel)	<input type="checkbox"/> open	<input type="checkbox"/> closed	<input type="text"/>
UPS-Roll-up	<input type="checkbox"/> open	<input type="checkbox"/> closed	<input type="text"/>
UPS Personnel (west wall)	<input type="checkbox"/> open	<input type="checkbox"/> closed	<input type="text"/>
South Wall-1, far west (personnel)	<input type="checkbox"/> open	<input type="checkbox"/> closed	<input type="text"/>
South Wall-2, west of fat tanks (personnel)	<input type="checkbox"/> open	<input type="checkbox"/> closed	<input type="text"/>
South Wall-3, nr fat tanks (personnel)	<input type="checkbox"/> open	<input type="checkbox"/> closed	<input type="text"/>
South Wall-4, near controll rm (personnel)	<input type="checkbox"/> open	<input type="checkbox"/> closed	<input type="text"/>
South Wall Roll Up (nr control rm)	<input type="checkbox"/> open	<input type="checkbox"/> closed	<input type="text"/>
South Wall-Refrig Meat Roll Up	<input type="checkbox"/> open	<input type="checkbox"/> closed	<input type="text"/>
South Wall-Refrig Meat (personnel)	<input type="checkbox"/> open	<input type="checkbox"/> closed	<input type="text"/>
East Wall Roll-Ups (Hammer Mill)	<input type="checkbox"/> open	<input type="checkbox"/> closed	<input type="text"/>
Rooftop Personnel (above extruders)	<input type="checkbox"/> open	<input type="checkbox"/> closed	<input type="text"/>

GENERAL INSPECTION AREAS

	COMMENTS
Rooftop-Extruder Area	<input type="text"/>
South Area: Near Fat Tanks	<input type="text"/>
South Area: Near RTOs	<input type="text"/>
South Area: Dumpsters ¹	<input type="text"/>
East Area Roadway (west of Cogen)	<input type="text"/>

¹If odors are detected, contact the DPF-Ripon Sanitation Lead to arrange for pickup of the waste container

RECOMMENDATIONS

RTO ODOR INSPECTION RECORD

Diamond Pet Foods of Ripon (DPF-Ripon)

DAILY

Inspection Date	Inspection Time	Inspection Conducted By

RTO 1				
Scent	Present	Weak	Average	Strong
Overall odor intensity				
Pet food				
Burnt Oven				
Natural Gas				
Other - describe				

RTO 2				
Scent	None	Weak	Average	Strong
Overall odor intensity				
Pet food				
Burnt Oven				
Natural Gas				
Other - describe				

RTO 3				
Scent	None	Weak	Average	Strong
Overall odor intensity				
Pet food				
Burnt Oven				
Natural Gas				
Other - describe				

Note: Rate all terms.

GENERAL COMMENTS, IF APPLICABLE
(Maintenance Plans/Activities/Planned Shutdowns/Equipment Replacements, etc)

OFF-SITE ODOR INSPECTION RECORD

Diamond Pet Foods of Ripon (DPF-Ripon)

DAILY

Inspection Date	Inspection Time	Inspection Conducted By

Location (Circle One)
Highway 99 / Main St. Exit and Overpass / Hammett Rd / Salida / Jack Tone Rd / Laurelwood/ Other

Offsite Odor Category Checklist

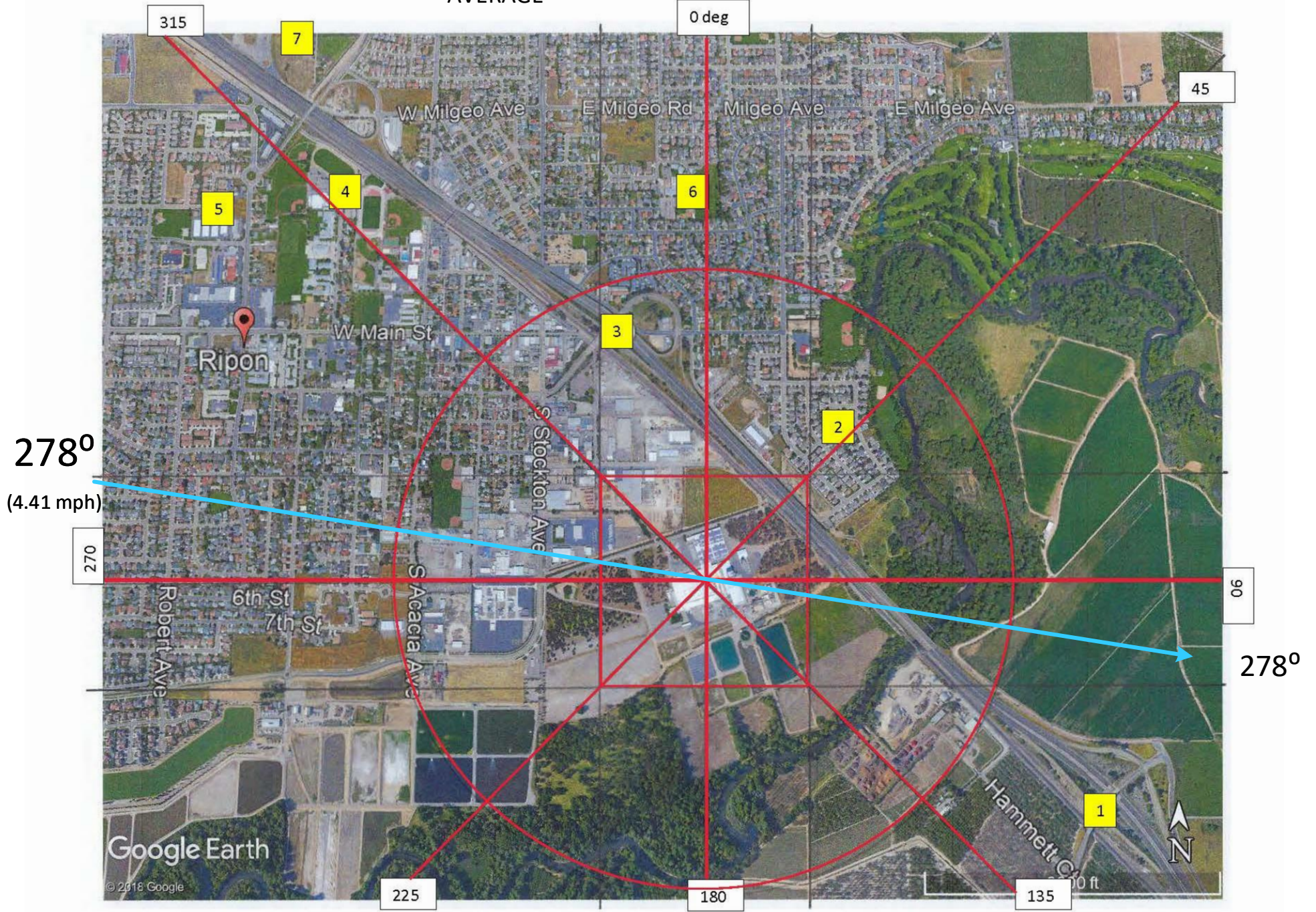
Scent	Present	Not-Present	Notes
Pet food			
Vehicle exhaust			
Gasoline			
Cigarette			
Fishy			
Meaty			
Potato			
Rancid			
Camp fire			
Musty, mildew			
Compost, organic decay			
Nutty			
Silage (grass, animal feed)			
Livestock			
Citrus			
Petrichor (smell after rain)			
Garbage			
Floral			
Other - describe			

Note: Rate all terms.

APPENDIX D – SAMPLE ODOR COMPLAINT WEATHER REPORT

3/8/2021 0800 – 0900 hrs

AVERAGE



Date	Wind Speed (MPH)	Wind Dir (from) (Deg, from)	Gust (MPH)	Sigma (Deg)
3/8/21 8:00	7.2	259	9	12
3/8/21 8:01	5.9	267	7.8	10
3/8/21 8:02	7.1	269	9	11
3/8/21 8:03	5.3	263	7.2	10
3/8/21 8:04	4.8	278	8.4	17
3/8/21 8:05	5.7	272	8.4	20
3/8/21 8:06	6.1	269	8.4	10
3/8/21 8:07	6.3	259	7.8	12
3/8/21 8:08	4.1	266	4.8	15
3/8/21 8:09	4.4	268	6	13
3/8/21 8:10	4.9	276	7.2	20
3/8/21 8:11	5.1	289	7.2	14
3/8/21 8:12	7.7	301	11.4	11
3/8/21 8:13	7.4	302	9	9
3/8/21 8:14	4	272	6.6	20
3/8/21 8:15	2.4	270	3.6	49
3/8/21 8:16	1.9	223	3	36
3/8/21 8:17	2.8	269	3.6	18
3/8/21 8:18	2.6	266	4.2	13
3/8/21 8:19	2.4	179	3.6	27
3/8/21 8:20	2.8	260	4.2	48
3/8/21 8:21	1.7	282	2.4	45
3/8/21 8:22	2.4	271	3.6	39
3/8/21 8:23	2.5	291	4.8	32
3/8/21 8:24	2.9	267	4.2	40
3/8/21 8:25	3.7	303	5.4	20
3/8/21 8:26	2.7	308	4.2	36
3/8/21 8:27	2.7	200	3.6	37
3/8/21 8:28	1.7	314	2.4	61
3/8/21 8:29	1.5	1	2.4	65
3/8/21 8:30	4.3	337	6	15
3/8/21 8:31	4	298	5.4	13
3/8/21 8:32	4.2	305	6.6	17
3/8/21 8:33	7.4	335	9	8
3/8/21 8:34	6.6	347	8.4	19
3/8/21 8:35	4.9	291	9	45

Avg. Wind Speed (MPH)	Median Wind Speed (MPH)	Avg. Wind Dir (Deg, from)	Median Wind Dir (Deg, from)	Avg σ_θ (Deg)	Med. σ_θ (Deg)
4.41	4.1	277.77	281	23.02	16
Max. Wind Speed (MPH)		Most E Wind Dir (Deg, from)			
11.4					
Min. Wind Speed (MPH)		Most W Dir (Deg, from)			
1					

3/8/21 8:36	5.8	330	7.8	11
3/8/21 8:37	2.4	304	4.2	51
3/8/21 8:38	3.2	315	5.4	36
3/8/21 8:39	6.7	310	9	15
3/8/21 8:40	7.7	297	9	13
3/8/21 8:41	4	328	6	24
3/8/21 8:42	6.9	328	8.4	14
3/8/21 8:43	8	311	9	14
3/8/21 8:44	6.2	307	8.4	8
3/8/21 8:45	6.7	312	8.4	5
3/8/21 8:46	6.4	302	8.4	28
3/8/21 8:47	6.3	281	8.4	8
3/8/21 8:48	5.2	297	6	12
3/8/21 8:49	5.6	301	6.6	11
3/8/21 8:50	5.2	293	6.6	7
3/8/21 8:51	3.2	260	3.6	16
3/8/21 8:52	3.1	262	4.2	25
3/8/21 8:53	3.4	248	4.2	38
3/8/21 8:54	3	255	4.2	11
3/8/21 8:55	2.8	265	3.6	18
3/8/21 8:56	2.5	301	5.4	53
3/8/21 8:57	2.3	292	3.6	76
3/8/21 8:58	4.1	241	4.8	11
3/8/21 8:59	3	244	4.2	6
3/8/21 9:00	1	233	1.2	6

APPENDIX E – SAMPLE RTO DAHS MONITORING REPORTS



DIAMOND PET FOODS-RIPON
Continuous Emissions Monitoring Report

Date of Request: [Date of request]
 Operation Date: [Operating date]

During Odor Abatement Operation

Maximum RTO Chamber Temp, F

Average RTO Chamber Temp, F

Minimum RTO Chamber Temp, F

[Permit Limit: 1650 F Minimum]

RTO-1 RTO-2 RTO-3

RTO Stack Flowrate, SCFM-Average

RTO Stack Temperature, F, maximum

RTO Stack Temperature, F, minimum

RTO Stack Temperature, F, average

All RTO Operations

Daily Total RTO Heat Input, MMBtu/hr

[Permit Limit: 184.8 MMBtu/day Maximum-RTO]

Rolling 12-month Heat Input, MMBtu/yr

[Permit Limit: 67,082 MMBtu/yr Maximum-RTO]

Rolling Combined 12-month Heat Input, MMBtu/yr

[Permit Limit: 156,816 MMBtu/yr Maximum Total]

--	--	--

--	--	--

--	--	--

Maximum Total Hourly NOx Emissions, Lb/hr

[Permit Limit: 8.343 lb/hr]

Daily Total NOx Emissions, Lb/day

[Permit Limit: 200.4 lb/day]

Rolling 12-month NOx Emissions, Lb/yr

[Permit Limit; 33,639 lb/yr]

--	--	--

--	--	--

--	--	--

Maximum RTO NOx Concentration

Time

Minimum RTO NOx Concentration

Time

Average RTO NOx Concentration

--	--	--

--	--	--

--	--	--

DRAFT REPORT; FORMAT MAY BE AMENDED

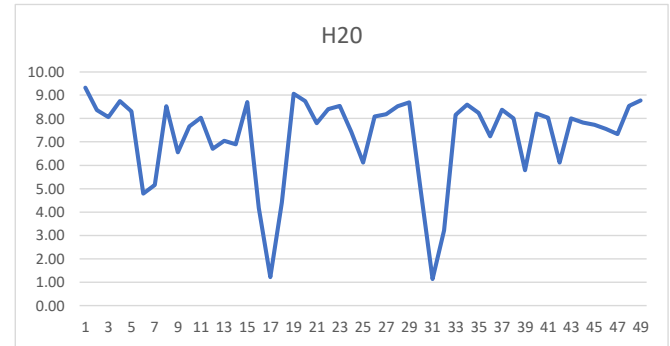
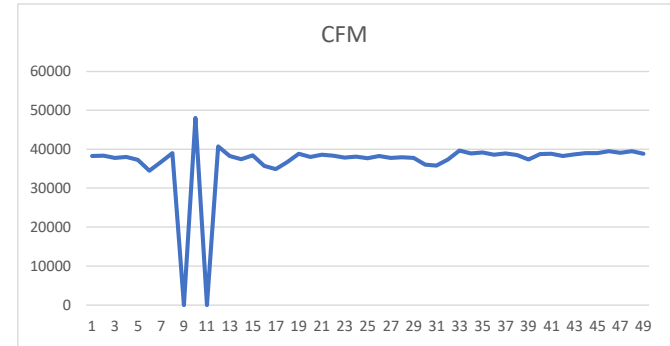
Average Values Report
Generated: 2/11/2021 07:08

Company: Diamond Pet Food
Plant:
City/St: Ripon, CA
Source: RT01

Period Start: 2/9/2021 00:00
Period End: 2/11/2021 00:00
Validation Type: 1/60 min
Averaging Period: 1 hr
Type: Block Avg

SAMPLE: Not for Compliance
SAMPLE: Not for Compliance
SAMPLE: Not for Compliance

Period Start:	Average 1_NOxD ppm	Average 1_NOxMassD #/hr	Average 1_RTO_CTemp degF	Average 1_ProcOn 1=ON	Total 1NOxMass24 #/day	Average 1_FlowD scfmd	Average 1_H2O %
02/09/2021 00:00	2.79	0.78	1715	1	4.9	38267	9.32
02/09/2021 01:00	2.49	0.69	1715	1	4.9	38345	8.36
02/09/2021 02:00	2.25	0.62	1715	1	4.9	37760	8.06
02/09/2021 03:00	2.34	0.65	1715	1	4.9	38045	8.75
02/09/2021 04:00	2.30	0.62	1716	1	4.9	37273	8.31
02/09/2021 05:00	1.03	0.26	1715	1	4.9	34474	4.79
02/09/2021 06:00	1.54	0.41	1715	1	4.9	36698	5.16
02/09/2021 07:00	2.32	0.66	1715	1	4.9	38994	8.52
02/09/2021 08:00	1.60	N/A	1713	1	4.9	N/A	6.55
02/09/2021 09:00	1.96	0.57	1715	1	4.9	48053	7.67
02/09/2021 10:00	2.24	N/A	1715	1	4.9	N/A	8.03
02/09/2021 11:00	1.59	0.46	1717	1	4.9	40737	6.71
02/09/2021 12:00	2.32	0.65	1715	1	4.9	38225	7.05
02/09/2021 13:00	2.64	0.72	1715	1	4.9	37424	6.90
02/09/2021 14:00	3.06	0.85	1715	1	4.9	38386	8.70
02/09/2021 15:00	1.65	0.43	1715	1	4.9	35740	4.17
02/09/2021 16:00	0.74	0.19	1715	1	4.9	34924	1.22
02/09/2021 17:00	1.66	0.45	1715	1	4.9	36728	4.40
02/09/2021 18:00	3.21	0.91	1715	1	4.9	38825	9.06
02/09/2021 19:00	3.04	0.84	1715	1	4.9	38002	8.75
02/09/2021 20:00	2.60	0.73	1715	1	4.9	38594	7.80
02/09/2021 21:00	2.62	0.73	1715	1	4.9	38323	8.40
02/09/2021 22:00	2.57	0.71	1715	1	4.9	37833	8.54
02/09/2021 23:00	2.46	0.68	1715	1	4.9	38101	7.43
02/10/2021 00:00	1.75	0.48	1715	1	12.3	37663	6.12
02/10/2021 01:00	1.95	0.54	1715	1	12.3	38237	8.09
02/10/2021 02:00	1.75	0.48	1715	1	12.3	37798	8.18
02/10/2021 03:00	1.86	0.51	1715	1	12.3	37928	8.53
02/10/2021 04:00	2.15	0.59	1715	1	12.3	37789	8.69
02/10/2021 05:00	1.34	0.35	1715	1	12.3	36010	4.93
02/10/2021 06:00	0.59	0.15	1715	1	12.3	35808	1.14
02/10/2021 07:00	0.84	0.23	1715	1	12.3	37360	3.22
02/10/2021 08:00	1.82	0.53	1715	1	12.3	39682	8.16
02/10/2021 09:00	1.67	0.47	1715	1	12.3	38911	8.60



APPENDIX F – SJVAPCD GUIDELINE: INVESTIGATION OF COMPLAINTS

**SAN JOAQUIN VALLEY UNIFIED
AIR POLLUTION CONTROL DISTRICT
COMPLIANCE DEPARTMENT**

COM 1140

APPROVED: _____ **SIGNED** _____ **Date:** February 8, 2007
Jon Adams
Director of Compliance

TITLE: COMPLAINT RESPONSE GUIDELINES

SUBJECT: INVESTIGATION OF COMPLAINTS

OBJECTIVE:

The purpose of this policy is to establish uniform criteria for the investigation and documentation of complaints and public nuisances.

PURPOSE:

Rule 4102 (Nuisance) of the Rules and Regulations of the San Joaquin Valley APCD and California Health and Safety Code Section 41700 provides for the protection of the public from nuisances caused by air contaminants. It is the purpose of this policy to ensure (1) complaints are investigated in a prompt and professional manner; (2) ensure that staff properly documents their observations; and (3) ensure that any necessary corrective actions are implemented expeditiously. The district will investigate complaints and enforce Rule 4102 in accordance with these procedures and policies. The rule provides for the mitigation of public nuisances resulting from the emission of air contaminants.

POLICY STATEMENT:

I. COMPLAINT ASSIGNMENT

A. COMPLAINTS RECEIVED DURING NORMAL OFFICE HOURS

1. The clerical staff normally receives complaints. Personnel receiving the complaint initiate a complaint form.
2. The complaint is entered into the computer database and assigned to the Area Inspector. Supervising inspector or clerical staff shall phone/page/text message the inspector for assignment.
3. Complaints will be assigned as soon as possible. If no inspector can be reached

within 20 minutes the supervisor or manager should be contacted.

B. COMPLAINTS RECEIVED AFTER NORMAL OFFICE HOURS

1. The District telephone system records complaints that are received after normal office hours and pages the group page number when a complaint is recorded.
2. The on-call inspector is to call in and listen to the recorded message when paged and immediately call the complainant to personally interview them concerning the nature of the complaint.
3. The on-call inspector shall enter all complaints that he/she receives into the complaint database. At that time the voice mail messages may be erased or forwarded to the assigned inspector. If the on-call inspector is unable to enter all the complaints in the database while on-call, clerical staff may be asked to enter the complaints into the database on the next working day.
4. Complaints regarding a violation in progress should receive immediate response. Minor violations that can be easily verified at a later date may be investigated the next working day, if necessary.
5. Requests for assistance by a fire agency should receive immediate response unless fire agency personnel are able to document a violation without our assistance.
6. Complaints identified by a supervisor as an on-going problem that requires special treatment should receive immediate response.
7. Odor or other potential nuisance type complaints should be investigated as soon as possible when more than one complaint is received or if after talking to the complainant there is a possibility that there might be a public health threat then the inspector should respond as soon as possible.
8. Always call the complainant as soon as possible after receiving a page.
9. For complaints that will require a response after dark, no field response will be initiated unless it is believed that a public health or safety hazard is in progress and supervisor or manager approval has been given.
10. Inspector safety should always be considered. If you encounter unsafe conditions, exit quickly and report the situation to your supervisor. In some cases it may be necessary to request the assistance of law enforcement.
11. When it is questionable if a complaint requires immediate response, contact a supervisor or manager for assistance.

12. Complaints received by the on-call staff that require prompt investigation, but are not immediately investigated due to nightfall or other extenuating circumstances, shall be investigated by the end of the next day. Complaints that are not investigated before the next working day shall be assigned to the appropriate supervisor for reassignment to another inspector. The supervisor shall be notified by voicemail of the pending complaint assignment.
13. Any time the inspector spends answering pages, listening to voicemail complaint messages, talking to complainants, or entering information into the database should be reported as hours worked.
14. All time the inspector spends driving to the field, investigating the complaint, and returning home should be reported as callback.

C. COMPLAINTS RECEIVED BY THE INSPECTOR

When a complaint is received by an inspector in the field, the inspector shall enter the complaint into the computer database while in the field or when he/she returns to the office.

D. AREA WIDE COMPLAINT EPISODES

1. Area-wide complaint episodes are generally the result of an unusual occurrence such as a large accidental fire or an industrial incident resulting in emissions of air contaminants that are readily detected by the public.
2. When a complaint episode occurs which is of such magnitude that it cannot be handled by the area inspector, compliance division staff should immediately alert the compliance manager and the appropriate supervising inspector in order to assign the additional personnel within the area to handle the situation.

E. ARB, EPA REFERRAL

Complaints referred by the ARB or EPA are normally received by telephone, with written notification to follow. These complaints will be entered into the computer database and assigned as soon as possible. Inspectors will be sent a copy of ARB and EPA's written complaint as soon as it is received.

F. CANCELLATION

Complaints may be cancelled for the following reasons:

1. A second complaint is received on the same day for the same source from the same person.
2. A second complaint is received on the same day from a related person in the same household.
3. The source of the complaint is located outside the District.
4. The source of the complaint is not within the scope of the District authority.

In all cases, the complainant should be contacted and advised of District actions.

G. COMPLAINTS FROM SCHOOLS (WATERS BILL – AB 3205)

If the principal of a school contacts the District to request an investigation of odors or possible air pollution sources as the cause of illness among school children, the District must respond and notify the city or county office responsible for administering hazardous materials policies and the fire department having jurisdiction as soon as possible.

The inspector who receives this complaint is responsible for notification.

H. GASOLINE DISPENSING FACILITY COMPLAINTS

Gasoline dispensing facility complaints should be entered into the computer database and forwarded to the appropriate District inspector.

II. FIELD INVESTIGATION

A. GENERAL

1. Complaint responses will take precedence over all other assignments with the exception of violations in progress.
2. When the area inspector is unavailable, an alternate inspector will be assigned the complaint.
3. After a complaint has been assigned, the inspector should first call and talk to the complainant and then decide whether to investigate the source or contact the complainant in person.
4. If there is a possibility that a violation is in progress and the inspector is confident that the complainant has accurately identified the source, the complaint response should begin with the investigation of the suspected source of the complaint. With odor complaints it is best to verify the odor before

investigating the suspected source.

5. Upon arrival at the scene, every effort will be made to avoid obvious identification of the complainant (do not park in front of the complainant's home when the complaint source is in the vicinity). The complainant will not be identified to anyone who is not an employee of the District.
6. If the complainant is not at home, the inspector will leave a message.

B. CUSTOMER SERVICE

The following guidelines will be followed when conferring with the complainant:

1. Inspectors will identify themselves by name and agency in a friendly manner.
2. Inspectors will be courteous and objective.
3. The complainant will be allowed to tell their story without unnecessary interruptions. When facts appear, the inspector should repeat them aloud for verification and write them down.
4. After the complainants have expressed themselves, the inspector should proceed with a line of questioning which will determine the cause, nature, and source of the air pollution problem cited in the complaint.
5. Ask the complainant how he expects the complaint to be resolved.
6. Inspectors will explain the laws involved and evidence necessary to proceed with enforcement action.
7. Do not promise any legal action nor commit the District to any course of action.
8. Always try to deliver your message in a positive manner, even if the message may be unwelcome.
9. Do not solicit complaints.

C. COMPLAINT INTERVIEW

In order to obtain the necessary data, the following should be obtained:

1. Name and location of the suspected source;

2. Description of the problem and its frequency;
3. Time of day the problem was first noticed;
4. Duration of problem at each occurrence;
5. Names and addresses of affected persons.
6. Location and extent of property damage, if any.
7. Description and frequency of any illness or symptoms alleged to have resulted from exposure to air contaminants. Report any observed or reported symptoms such as nausea, vomiting, headache, sore throat, cough, eye irritation.
8. Description of odors, if any.
9. Any other information the complainant may have that will relate the problem to a specific source.
10. If soiling or other property damage is reported, the inspector should examine the citizen's property. The pattern of fall-out may indicate their origin.
11. If an odor, fall-out, or other pollutant is detected at the complainant's property, the wind direction must be determined for the purpose identifying the source.

D. INSPECTION OF THE ALLEGED SOURCE

To establish a nuisance, the source responsible for the offending emission must be identified.

When investigating the source the inspector should:

1. Identify him/herself and explain that he/she is investigating a complaint.
2. Ask pertinent questions based on information acquired from the investigation.
3. Inspect the equipment and compare actual operating conditions, cycles, and times of operation with the times and frequencies of complaints.
4. Obtain wind data from a nearby facility, e.g. airport, air monitoring station, or industry.

E. COMPLAINT CONFIRMATION

A confirmed complaint means either an inspector, another employee of the District, or a reliable complainant is able to testify that a particular operation or combination of operations is the source of the air contaminants. Confirmation may be accomplished through in the following ways:

1. Personal observation by an inspector or another District employee with the complainant (face-to-face confirmation). This would require that the inspector trace the air contaminant from the complainant's residence or place of business to the alleged source.
2. A reliable complainant makes confirmation. A reliable complainant is a person that has previously had a complaint confirmed that meets all the requirements listed in number 1 above.
3. The identification of a source of air contaminants that is supported by data such as: operational records, wind charts, and monitoring devices that show a correlation between complaints and source activities.

F. NON-SPECIFIC COMPLAINT

The cause of the complaint may not always involve air pollution. Although most complaints are related to air pollution, some will concern problems over which the agency has little or no control because they are not related to air pollution; e.g. backyard feuds and naturally occurring contaminants, resentment towards a nearby source.

Although the District may not have jurisdiction in certain cases the inspector should refer the complaint to an appropriate agency. Additionally, the complainant must be informed of the District's actions.

If complaints are unsubstantiated, the inspector will document that fact.

III. VIOLATION NOTICE OF CRITERIA

A. GENERAL

If during a complaint investigation the inspector observes a violation of a District regulation, a Notice of Violation shall be issued.

B. PUBLIC NUISANCE

A NOV for a nuisance **shall not** be issued until the incident has reviewed by the Director of Compliance.

C. Public Emergency

District management may authorize issuance of a NOV in the case of an obvious public emergency even though complaints have not been received, e.g., when forced evacuation is instituted or major transportation arteries are impacted.

IV. NUISANCE

Rule 4102

California Health and Safety Code Section 41700

"No person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which cause, or have a natural tendency to cause injury or damage to business or property."

A. EXEMPTIONS

Rule 4102 and Health and Safety Code, Section 41700, do not apply to odors from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

B. CRITERIA

A nuisance can occur under a variety of conditions and circumstances. The following criteria are general guidelines to be considered in determining whether a nuisance has occurred, but the final determination of the occurrence of a nuisance is the responsibility of District management.

1. When five (5) complaints from different individuals have been confirmed in a 24-hour period. One household represents one complaint.
2. When less than five (5) complaints have been confirmed but special circumstances are present, such as when there are a limited number of affected people in the vicinity of an offending source, or a representative of a school complains on behalf of the students or staff.
4. The receipt of one or more confirmed complaints that a source is discharging air contaminants that cause injury to a person or damage to a business or property.

C. CHRONIC, ONGOING NUISANCES

For those sources of emissions which have been determined by the Director of Compliance to be responsible for chronic, on-going nuisance situations in a given community, the regular procedure for confirmation of odor complaints will not be required in all cases. Confirmations can be allowed when all of the following conditions are met:

1. An inspector detects the emissions within a reasonable distance of the complainant's address within 2 hours of the time of the complaint.
2. The inspector confirms that the emissions in the community on the day in question are attributable to the given source's operations.
3. The inspector confirms at least one other complaint against the source on a face-to-face basis in the general vicinity of the given complainants' address.

D. Civil Injunction, Abatement Order, Permit Revocation, and Additional Remedies

Persistent public nuisance cases will be initially handled through an office conference and, when appropriate, also under CH&SC Section 42402.

When the problem cannot be resolved at the office conference level, an Abatement Order may be sought under CH&SC Section 42451 or a Civil Injunction under CH&SC Section 41513.

In all actions brought before the Hearing Board for the abatement of a nuisance, the complainants must be notified of the Hearing.

V. COMPLAINT REPORT

The District Complaint database shall be used to enter all findings and conclusions related to the complaint. If a NOV is issued, an NOV report shall be generated.

1. If hard copy attachments or photographs related to the complaint are received or generated as a result of the investigation, a hard copy of the complaint report shall be printed when the complaint investigation is completed. All attachments shall be filed with the report in the complaints file.
2. If no attachments or photographs are generated as a result of the investigation, a complaint report does not need to be printed or filed.
3. Always immediately alert your supervisor of any public health hazards or issues of a controversial nature.

APPENDIX G – EXCERPT FROM ODOR COMPLAINT TRACKING SHEET



NOTE: Sample Only: Odor Complaints Have Been Tracked From 2012 to Present

©2021, Yorke Engineering, LLC

Excerpt of Diamond Pet Odor Complaints late 2020 - 2021									
COMPLAINT RECORD DATE OF UPDATE:				MO/DD/YYYY					
Day	Date	Time	Location	City	Total (Month)	No	Confirmed?		NOTES
							Yes	Month	
Wed	11/11/2020	11:17 AM	Laurelwood	Ripon	3	1	0	November	Not confirmed. SJVAPCD indicates complainant detected odor at Mt Airy Ct (near Ripona Elementary)
Thurs	11/12/2020	7:59 PM	Laurelwood	Ripon		1	0		Not confirmed. SJVAPCD indicates detected at Mt Airy Ct (near Ripona Elementary)
Monday	11/16/2020	10:25 AM	Laurelwood	Ripon		1	0		Not confirmed.
Thurs	12/3/2020	1:28 PM	Laurelwood	Ripon	1	1	0	December	Not confirmed. SJVAPCD arrived in area east of 99 at 1:45 pm (17 min response time!)
Friday	1/8/2021	2:50 PM	Not Provided (possible Laurelwood)	Ripon	2	1	0	January	Not confirmed; complainant did not identify/did not call back to District; District in area 4:00; did not confirm.
Sun	1/10/2021	12:45 PM	Not Provided (possible Laurelwood)	Ripon		1	0		Not confirmed; District inspector tried to call; District arr 2:15; drove around. Drove up and down-wind of Laurelwood area.
Tuesday	2/9/2021	4:23 PM	Not Provided (possible Laurelwood)	Ripon		1	0	February	Not confirmed; complainant: "odors lasted 1.5 hrs". SJVAPCD responded within 30 min!

APPENDIX H – SAMPLE MONTHLY ODOR REPORT TO CITY OF RIPON

Randy Frazier (RFrazier@YorkeEngr.com)

From: Jessica Mohatt (JMohatt@YorkeEngr.com)
Sent: Friday, February 26, 2021 4:39 PM
To: 'Ken Zuidervaart'
Cc: Randy Frazier (RFrazier@YorkeEngr.com); Mark Ferguson (mferguson@diamondpet.com); Joe Garcia (jgarcia@diamondpet.com); Jodi Smith
Subject: Diamond Pet Foods Odor Complaint Summary – Jan 2021
Attachments: DPF Odor Complaint_1-8-21.pdf; DPF Odor Complaint_1-10-21.pdf

Dear Mr. Zuidervaart:

On behalf of Diamond Pet Food – Ripon (DPF – Ripon), Yorke Engineering, LLC has prepared the following summary of odor complaints received by the San Joaquin Valley Air Pollution Control District (SJVAPCD) for the month of January 2021 alleged to be caused by DPF - Ripon. Table 1 summarizes the complaints reported to DPF – Ripon by the SJVAPCD. A total of two complaints were received by SJVAPCD staff during the month. None of the complaints were confirmed by SJVAPCD staff. Attached are diagrams showing the wind data collected from DPF – Ripon’s onsite weather station at the time each odor complaint was received. The attached maps indicate the wind speed and direction at the time of the complaints.

Table 1: Summary of Odor Complaints Received by the Valley Air District

Date	Time	Approximate Location	Distance and Wind Direction to Approximate Location	Wind Speed and Direction	SJVAPCD Investigation Result
1/8/2021	2:50 pm	Unknown – presumed Laurelwood	2,000 ft 225°	245° 4.9 mph	Unconfirmed
1/10/2021	12:45 pm	Unknown – presumed Laurelwood	2,000 ft 225°	256° 3.0 mph	Unconfirmed

DPF – Ripon continues to operate and maintain the Regenerative Thermal Oxidizers (RTOs) in accordance with the procedures laid out in the previously submitted Odor Management Plan.

Please do not hesitate to contact me if you have any questions or concerns regarding any of these events, as we have some further data that can be discussed.

Best regards,

Yorke Service Areas Include: Air Quality, Storm Water, Hazardous Waste, Industrial Hygiene-Safety, and CEQA Technical Reports. For More Info: www.YorkeEngr.com/Services.

Jessica Mohatt, CAPP, QISP | Merced Office Engineer

O: (209) 662-7500 | M: (209) 446-0227
JMohatt@YorkeEngr.com | [V-card Link](#)

APPENDIX I – OMP REVIEW TEMPLATE

Odor Management Plan Review

Diamond Pet Foods of Ripon (DPF-Ripon)

Frequency: Every 5 calendar years or as needed

Review Date	Reviewer and Title

Date of Last Review	25-Feb-21
Confirmed Complaints Since Last Review	
Number and Level of Tiered Odor Responses Since Last Review	
Summary of Any Process Changes with Potential Odor Impacts (i.e. significant changes to raw material handling, recipes, production rates, maintenance frequency, etc.)	

OMP Section	OMP Modifications Needed	Comments
1.0 Executive Summary		
2.0 Facility Information		
3.0 Odor Emitting Activities		
3.1 Pet Food Production Emissions		
3.2 Indirect Emission Sources		
4.0 Odor Control Practices		
4.1 RTO Automatic Maintenance Sequence		
4.2 Administrative Control Procedures		
4.3 Maintenance Frequency		
4.4 Engineering Controls		
5.0 DPF Complaint Tracking and Response		
5.1 General Reporting		
5.2 Tier 1 Odor Response		
5.3 Tier 2 Odor Response		
5.4 Tier 3 Odor Response		
5.5 DPF Compliance Tracking Flowchart and Contacts		
5.6 Methods for Filing Odor Complaints		
6.0 OMP Preparers and Agency Contacts		
6.1 OMP Preparers		
6.2 OMP Reviewing Agency (CEQA Lead Agency)		
7.0 References		

Revision Date: 2/25/2021

Appendix J
ERC Withdrawal Calculations

ERC Withdrawal Calculations

NO _x	1 st Quarter (lb)	2 nd Quarter (lb)	3 rd Quarter (lb)	4 th Quarter (lb)
ERC N-1580-2	24,561	11,936	20,290	23,504
Offsets Required (Includes distance offset ratio)	3,150	3,150	3,150	3,150
Amount Remaining	21,411	8,786	17,140	20,354
Credits reissued under ERC N-YYYY-2	21,411	8,786	17,140	20,354

Appendix K
ERC Surplus Analysis

San Joaquin Valley Air Pollution Control District

Surplus ERC Analysis

Facility Name: Diamond Pet Foods - Ripon	Date: July 8, 2022
Mailing Address: 942 S Stockton Ave Ripon, CA 95366	Engineer: Jag Kahlon
Contact Person: Will Clark	Lead Engineer: James Harader
Telephone: (209) 662-1567	
ERC Certificate #: N-1580-2	
Project #: N-1223271	

I. Proposal

Diamond Pet Foods - Ripon has proposed to use the following Emission Reduction Credit (ERC) certificate, or a certificate split from it to meet the federal offset requirements of District project N-1211835:

Proposed ERC Certificate	
Certificate #	Criteria Pollutant
N-1580-2	NO _x

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 Summary: NO_x

ERC Certificate N-1580-2				
Pollutant	1 st Qtr. (lb/qtr)	2 nd Qtr. (lb/qtr)	3 rd Qtr. (lb/qtr)	4 th Qtr. (lb/qtr)
Current Value	24,561	11,936	20,290	23,504
Surplus Value	24,561	11,936	20,290	23,504

II. Individual ERC Certificate Analysis

ERC Certificate N-1580-2

A. ERC Background

Criteria Pollutant: NO_x

ERC Certificate N-1580-2 is a certificate that was split out from parent ERC Certificate N-1086-2. Original ERC Certificate N-1086-2 was issued to Ingredion Incorporated (facility ID N-802) on January 6, 2014 under project N-1122754. The ERCs were generated from the shutdown of emission units at a solid fuel-fired power plant, which included a 620 MMBtu/hr coal-fired circulating fluidized bed boiler (permit N-802-1) and various auxiliary equipment (permits N-802-2 through N-802-8, N-802-10 through N-802-14, N-802-16, N-802-17, and N-802-19, see detailed equipment summary in Attachment 1). Of the units shut down, the boiler under permit N-802-1 was the only source of NO_x emissions; therefore, the other permits will not be evaluated as part of this analysis. 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 N-1580-2				
Pollutant	1st Qtr. (lb/qtr)	2nd Qtr. (lb/qtr)	3rd Qtr. (lb/qtr)	4th Qtr. (lb/qtr)
Original Value of Parent Certificate N-1086-2	38,860	26,235	34,589	37,804
Current Value of ERC Certificate N-1580-2	24,561	11,936	20,290	23,504

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 2301 – Emission Reduction Credit Banking (1/19/12)

The application review for the original ERC banking project demonstrated that the ERC credit complied with District Rule 2301 requirements at the time it was issued.

Rule 4352 – Solid Fuel Fired Boilers, Steam Generators and Process Heaters (12/15/11)

The application review for the original ERC banking project demonstrated that the NO_x emission reductions were surplus of all Rule 4352 NO_x emission limits. Therefore, the original NO_x emission reductions were surplus at time of issuance.

2. Federal Rules and Regulations

40 CFR Part 60 Subpart Da - Standards of Performance for Electric Utility Steam Generating Units

The application review for the original ERC banking project demonstrated that the boiler had a NO_x limit that was below the limit in the subpart. Therefore, the emission reductions were surplus of the requirements of any applicable federal rules or regulations at the time the ERC was originally banked.

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

All District and federal rules and regulations that have been adopted or amended since the date the original banking project was finalized will be evaluated below:

1. District Rules:

Rule 2301 – Emission Reduction Credit Banking (8/15/19)

Rule 2301 has been amended since the original ERC certificate was issued. However, the requirements of this rule only apply at the time of the original ERC banking action. Therefore, no further evaluation of this rule will be performed in this analysis.

Rule 4352 – Solid Fuel Fired Boilers, Steam Generators and Process Heaters (12/16/21)

Rule 4352 was last amended by the District on December 16, 2021; however, this version of the rule has not yet been included in the District's SIP. Therefore, the December 15, 2011 version of Rule 4352 (added to the District's SIP on November 6, 2012) must be used to determine surplus emission reductions. This was the version of the rule used in the original ERC banking project, and the original NO_x emission reductions continue to be surplus of District requirements.

2. Federal Rules and Regulations:

40 CFR Part 60 Subpart Da - Standards of Performance for Electric Utility Steam Generating Units

Various sections of this federal regulation have been updated since the original ERC banking project was finalized in January of 2014. The following sections of this subpart were updated: 60.42Da – *Standards for Particulate Matter (PM)* and 60.48Da – *Compliance Provisions*. The updates to these sections of the subpart do not result in any changes to the NO_x emissions limits allowed by this subpart. Therefore, the original NO_x emission reductions continue to be surplus of federal rules and regulations.

D. Surplus at Time of Use Adjustments to ERC Quantities

As demonstrated in the section above, the emissions reductions from the permit unit 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 are 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 N-1580-2 – Criteria Pollutant NO _x					
		1 st Qtr. (lb/qtr)	2 nd Qtr. (lb/qtr)	3 rd Qtr. (lb/qtr)	4 th Qtr. (lb/qtr)
(A)	Current ERC Quantity	24,561	11,936	20,290	23,504
(B)	Percent Discount	0%	0%	0%	0%
(C) = (A) x [1 – (B)]	Surplus Value	24,561	11,936	20,290	23,504

Attachment

- 1: Summary of Equipment Shut Down in Original ERC Banking Project

Summary of Equipment Shut Down in Original ERC Banking Project

District Permit	Equipment Summary
N-802-1	COAL FIRED CIRCULATING FLUIDIZED BED BOILER (CAPACITY 550,000 LBS/HR STEAM) UTILIZING LIMESTONE INJECTION FOR SOX CONTROL, A THERMAL DENOX SYSTEM FOR NOX CONTROL, AND TWO CYCLONES VENTED TO A BAGHOUSE FOR PARTICULATE CONTROL
N-802-2	BOTTOM ASH STORAGE AND LOADOUT WITH A WET ROTARY ASH LOADOUT SYSTEM AND DRY ASH FLEXIBLE LOADOUT SPOUT
N-802-3	LIMESTONE RECEIVING AND STORAGE
N-802-4	400 TPH: BELT CONVEYOR #1 AND EN-MASSE CONVEYER #2
N-802-5	STORAGE SILO #1 (3000 TON CAPACITY)
N-802-6	125 TPH COAL CRUSHER, BELT CONVEYOR #3 WITH EN-MASSED CONVEYER #5
N-802-7	PLANT SILO #1 (660 TON CAPACITY)
N-802-8	FLY ASH STORAGE, LOADOUT SYSTEM AND A MIDWEST INDUSTRIES VACULOADER VENTED TO AN INTEGRAL DUST COLLECTOR
N-802-10	COAL/DELAYED COKE RECEIVING SYSTEM
N-802-11	STORAGE SILO #2 (3000 TON CAPACITY)
N-802-12	125 TPH BELT CONVEYOR #4 SERVED BY THE 125 TPH GRINDER (N-802-6) AND BY THE TIRE DERIVED FUEL (TDF) HANDLING EQUIPMENT (N-802-17) VENTED TO BAGHOUSE DC-3
N-802-13	PLANT SILO #2 (660 TON CAPACITY)
N-802-14	FLUID PETROLEUM COKE STORAGE AND HANDLING SYSTEM WITH A 600 TON STORAGE SILO VENTED TO A FLEX-KLEEN WSTS-81 PULSE JET BAGHOUSE
N-802-16	FOUR CELL MECHANICAL DRAFT COOLING TOWER WITH A CIRCULATION RATE OF 25,000 GPM
N-802-17	TIRE DERIVED FUEL (TDF) AND DELAYED COKE RECEIVING AND HANDLING SYSTEM CONSISTING OF THREE COVERED RECEIVING BINS SERVING THREE WALKING FLOOR COVERED TRAILERS AND TWO COVERED TROUGH CONVEYORS SERVING THE EXISTING #4 ENCLOSED SOLID FUEL CONVEYOR
N-802-19	BIOMASS FUEL RECEIVING AND HANDLING OPERATION, INCLUDING THREE TRAILER RECEIVING BAYS AND BIOMASS CONVEYOR #9, ALL SERVED BY A SLY MODEL STJ-85-10 DUST COLLECTOR