



APR 1 2 2018

Mark Ferguson Diamond Pet Food Processors of Ripon 942 South Stockton Ave Ripon, CA 95366

RE: Notice of Final Action - Authority to Construct

Facility Number: N-8234 Project Number: N-1173791

Dear Mr. Ferguson:

The Air Pollution Control Officer has issued the Authority to Construct permits to Diamond Pet Food Processors of Ripon to remove the existing cold plasma injection and odorant injection systems and replace them with three 6.0 MMBtu/hr (each) Durr Systems Inc.'s Ecopure RL-60 regenerative thermal oxidizers (RTO) and associated duct work and control equipment and make changes to the existing permit requirements to match "asbuilt" plant configuration for the units under permits N-8234-4, '-5 and '-6, and to establish combined annual heat input for the boilers under permits N-8234-10 and '-11, at 942 South Stockton Avenue, Ripon, California. Enclosed are the Authority to Construct permits and a copy of the notice of final action to be published approximately three days from the date of this letter.

Notice of the District's preliminary decision to issue the Authority to Construct permits was published on March 8, 2018. The District's analysis of the proposal was also sent to CARB on March 1, 2018. No comments were received following the District's preliminary decision on this project.

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

Seyed Sadredin

Executive Director/Air Pollution Control Officer

Mr. Mark Ferguson Page 2

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Nick Peirce at (209) 557-6400.

Sincerely,

Arnaud Marjollet

Director of Permit Services

AM:JK

Enclosures

cc: Tung Le, CARB (w/enclosure) via email





Facility # N-8234 DIAMOND PET FOOD PROCESSORS OF RIPON 942 S STOCKTON AVE **RIPON, CA 95366**

AUTHORITY TO CONSTRUCT (ATC) QUICK START GUIDE

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

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

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

> Seved Sadredin 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





PERMIT NO: N-8234-4-10

ISSUANCE DATE: 04/10/2018

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 6.0 MMBTU/HR (EACH) 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

CONDITIONS

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

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.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

- 6. 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]
- 7. 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 discharge exhaust from the dryer cooler cyclone (MAC) into the duct connected to the RTO. [District Rules 2201 and 4102]
- 8. 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]
- 9. 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. Each dumpster receiving fines (rejects) shall be equipped with a tight-fitting lid with a static sock filter. [District Rule 2201]
- 10. 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]
- 11. 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 14 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. Each barrel shall have a tight-fitting lid with an optional static sock filter. 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]
- 12. The owner or operator shall install, operate and maintain three identical Durr Systems, Inc.'s Ecopure RL-60 regenerative thermal oxidizers (RTO), 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), dryer cooler cyclone (MAC) and vertical cooler cyclone (MAC HE52). [District Rules 2201 and 4102]
- 13. 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, as long as the pet food manufacturing process operates. 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]
- 14. Each RTO shall be equipped with non-resettable fuel flow meter(s) to measure natural gas fuel flow into each RTO during various modes of operation (e.g., startup, steady state, etc.). [District Rule 2201]
- 15. The RTO(s) shall operate at or above the minimum steady-state average operating combustion chamber temperature established during the initial source test, when pet food manufacturing is occurring. [District Rule 2201]
- 16. The minimum steady state average RTO combustion chamber temperature (degree Fahrenheit) shall be determined during the initial source test while achieving compliance with the 95% VOC emissions control efficiency. This temperature limit shall be included in the Permit to Operate. [District Rule 2201]
- 17. 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]
- 18. The dryer and RTO(s) shall only be fired on PUC-quality natural gas. [District Rule 2201]

- 19. PM10 emissions from the operations (not including PM10 emissions from natural gas combustion in the RTO) covered under this permit shall not exceed 0.0612 pounds per ton of finished material produced. [District Rule 2201]
- The post control VOC emissions from the operations (not including VOC emissions from natural gas combustion in the RTO) covered under this permit shall not exceed 0.005 pounds per ton of finished material produced. [District Rule 2201]
- 21. No more than 36 tons of ground meat, excluding moisture, shall be injected into the steam-conditioner in any one day. [District Rule 2201]
- 22. The amount of finished product produced under this line shall not exceed 780 tons in any one day. [District Rule 2201]
- 23. 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]
- 24. 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]
- 25. 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]
- 26. During startup period, emissions due to natural gas combustion in each RTO shall not exceed any of the following limits: 0.883 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 1.41 lb-CO/MMBtu and 0.0055 lb-VOC/MMBtu. [District Rule 2201]
- 27. During startup period, heat input rate to each RTO shall not exceed any of the following limits: 30 MMBtu/day and 210 MMBtu/year (12-month rolling total). [District Rule 2201]
- 28. Except during startup period, emissions due to natural gas combustion in each R'fO shall not exceed any of the following limits: 0.072 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 1.2 lb-CO/MMBtu and 0.0055 lb-VOC/MMBtu. [District Rule 2201]
- 29. The combined total heat input rate to each RTO (i.e., heat input rate during startup period, as well as, heat input rate during steady state period) shall not exceed any of the following limits: 144 MMBtu/day, and 41,513 MMBtu/year (12-month rolling total). [District Rule 2201]
- 30. The permittee shall monitor and record the stack concentration of NOx, 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]
- 31. 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]
- 32. If either the dryer NOx or CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been reestablished, 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]

- 33. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]
- 34. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
- 35. 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]
- 36. 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]
- 37. 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]
- 38. Source testing to determine NOx 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]
- 39. All dryer test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309]
- 40. Source testing to measure startup NOx and CO emissions from the RTO system, when the RTO chamber burner is operating, shall be conducted within 60 days of initial startup. The owner or operator shall collect samples from the outlet of an RTO, while the equipment is being warmed up before treating the contaminated stream from the pet food manufacturing line(s). If the startup period is shorter than the required three 30 minutes runs, then a shorter period may be allowed, upon District's Compliance Division's discretion. Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
- 41. Source testing to measure steady state NOx and CO emissions from the RTO system, when the natural gas injection system is operating (no burner operation), shall be conducted within 60 days of initial startup. The NOx and CO emissions shall be calculated as follows: Pollutant (lb/hr) = Pollutant outlet (lb/hr) Pollutant inlet (lb/hr), where Pollutant outlet = NOx or CO emissions at the exhaust of the RTO, Pollutant inlet = NOx or CO emissions from the latest source test for dryer(s) x actual natural gas fuel heat input rate (MMBtu/hr) in the dryer(s). The resulting emissions shall be translated to heat input basis (MMBtu/hr) using the actual heat input rate to the RTO to demonstrate compliance with NOx and CO emission factors. Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
- 42. NOx 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]
- 43. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201 and 4309]
- 44. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201 and 4309]
- 45. Stack gas velocity or volumetric flow rate shall be determined using EPA Methods 2, 2A, or 2D. [District Rule 2201]
- 46. For initial and annual testing purposes, one RTO system inlet and outlet may be sampled to determine compliance with various emission limits (i.e., NOx and CO limits Startup and steady state, 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 emission limit in this permit shall constitute violation of permits N-8234-4, '-5 and '-6. [District Rule 2201]

- 47. Source testing shall be conducted by selecting pet food recipe(s) that generates most odorous compounds. 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 ground 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]
- 48. 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 60 days of the 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]
- 49. Source testing to determine compliance with PM10 emission limit (0.0612 lb/ton of finished product produced) shall be conducted within 60 days of the initial startup under this permit. [District Rule 2201]
- 50. The process emissions shall be calculated as follows: VOC (lb/hr) = VOCinlet of the RTO (lb/hr) VOCoutlet of the RTO (lb/hr). VOCoutlet of the RTO (lb/hr) = VOCmeasured at the outlet of RTO (lb/hr) VOCnatural gas combustion in the RTO (lb/hr). PM10 (lb/hr) = PM10outlet of the RTO (lb/hr) PM10natural 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]
- 51. 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]
- 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, dryer cooler 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. [District Rule 2201]
- 53. The District may, at its discretion, require VOC source testing and odor panel testing at any time should conditions at the facility or the surrounding area warrant 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 line that are operated, (3) name of the recipe being produced, (4) amount of ground meat injected rate, excluding moisture, into the steam-conditioner, (5) processing rate of finished product produced, tons/hour, (6) maximum processing rate of finished product produced, tons/hour, (7) RTO chamber temperature data (degrees Fahrenheit), (8) actual amount of fuel combusted in the dryer(s) and (9) actual amount of fuel combusted in the RTO. [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]

- 56. 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) ground 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 during startup period, in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period, (8) heat input rate to each RTO during steady state period, in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period, and (9) the combined total heat input rate to each RTO in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period. [District Rule 2201]
- 57. 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]
- 58. 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]
- 59. 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]
- 60. Authority to Construct (ATC) permits N-8234-10-1 and N-8234-11-1 shall be implemented prior to, or concurrently with the implementation of this permit. [District Rule 2201]





PERMIT NO: N-8234-5-10

ISSUANCE DATE: 04/10/2018

LEGAL OWNER OR OPERATOR: DIAMOND PET FOOD PROCESSORS OF RIPON

MAILING ADDRESS:

942 S STOCKTON AVE

LOCATION:

942 S STOCKTON AVE **RIPON, CA 95366**

RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD PROCESSING LINE #2: INSTALL THREE 6.0 MMBTU/HR (EACH) 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

CONDITIONS

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

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.

Seved Sadredin, Executive Director / APCO

Amaud Marjollet, Director of Permit Services

- 6. 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]
- 7. 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 discharge exhaust from the dryer cooler cyclone (MAC) into the duct connected to the RTO. [District Rules 2201 and 4102]
- 8. 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]
- 9. 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. Each dumpster receiving fines (rejects) shall be equipped with a tight-fitting lid with a static sock filter. [District Rule 2201]
- 10. 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]
- 11. 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 14 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. Each barrel shall have a tight-fitting lid with an optional static sock filter. 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]
- 12. The owner or operator shall install, operate and maintain three identical Durr Systems, Inc.'s Ecopure RL-60 regenerative thermal oxidizers (RTO), 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), dryer cooler cyclone (MAC) and vertical cooler cyclone (MAC HE52). [District Rules 2201 and 4102]
- 13. 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, as long as the pet food manufacturing process operates. 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]
- 14. Each RTO shall be equipped with non-resettable fuel flow meter(s) to measure natural gas fuel flow into each RTO during various modes of operation (e.g., startup, steady state, etc.). [District Rule 2201]
- 15. The RTO(s) shall operate at or above the minimum steady-state average operating combustion chamber temperature established during the initial source test, when pet food manufacturing is occurring. [District Rule 2201]
- 16. The minimum steady state average RTO combustion chamber temperature (degree Fahrenheit) shall be determined during the initial source test while achieving compliance with the 95% VOC emissions control efficiency. This temperature limit shall be included in the Permit to Operate. [District Rule 2201]
- 17. 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]
- 18. The dryer and RTO(s) shall only be fired on PUC-quality natural gas. [District Rule 2201]

- 19. PM10 emissions from the operations (not including PM10 emissions from natural gas combustion in the RTO) covered under this permit shall not exceed 0.0612 pounds per ton of finished material produced. [District Rule 2201]
- 20. The post control VOC emissions from the operations (not including VOC emissions from natural gas combustion in the RTO) covered under this permit shall not exceed 0.005 pounds per ton of finished material produced. [District Rule 2201]
- 21. No more than 36 tons of ground meat, excluding moisture, shall be injected into the steam-conditioner in any one day. [District Rule 2201]
- 22. The amount of finished product produced under this line shall not exceed 780 tons in any one day. [District Rule 2201]
- 23. 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]
- 24. 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]
- 25. 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]
- 26. During startup period, emissions due to natural gas combustion in each RTO shall not exceed any of the following limits: 0.883 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 1.41 lb-CO/MMBtu and 0.0055 lb-VOC/MMBtu. [District Rule 2201]
- 27. During startup period, heat input rate to each RTO shall not exceed any of the following limits: 30 MMBtu/day and 210 MMBtu/year (12-month rolling total). [District Rule 2201]
- 28. Except during startup period, emissions due to natural gas combustion in each RTO shall not exceed any of the following limits: 0.072 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 1.2 lb-CO/MMBtu and 0.0055 lb-VOC/MMBtu. [District Rule 2201]
- 29. The combined total heat input rate to each RTO (i.e., heat input rate during startup period, as well as, heat input rate during steady state period) shall not exceed any of the following limits: 144 MMBtu/day, and 41,513 MMBtu/year (12-month rolling total). [District Rule 2201]
- 30. The permittee shall monitor and record the stack concentration of NOx, 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]
- 31. 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]
- 32. If either the dryer NOx or CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been reestablished, 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]

- 33. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]
- 34. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
- 35. 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]
- 36. 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]
- 37. 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]
- 38. Source testing to determine NOx 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]
- 39. All dryer test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309]
- 40. Source testing to measure startup NOx and CO emissions from the RTO system, when the RTO chamber burner is operating, shall be conducted within 60 days of initial startup. The owner or operator shall collect samples from the outlet of an RTO, while the equipment is being warmed up before treating the contaminated stream from the pet food manufacturing line(s). If the startup period is shorter than the required three 30 minutes runs, then a shorter period may be allowed, upon District's Compliance Division's discretion. Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
- 41. Source testing to measure steady state NOx and CO emissions from the RTO system, when the natural gas injection system is operating (no burner operation), shall be conducted within 60 days of initial startup. The NOx and CO emissions shall be calculated as follows: Pollutant (lb/hr) = Pollutant outlet (lb/hr) Pollutant inlet (lb/hr), where Pollutant outlet = NOx or CO emissions at the exhaust of the RTO, Pollutant inlet = NOx or CO emissions from the latest source test for drycr(s) x actual natural gas fuel heat input rate (MMBtu/hr) in the dryer(s). The resulting emissions shall be translated to heat input basis (MMBtu/hr) using the actual heat input rate to the RTO to demonstrate compliance with NOx and CO emission factors. Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
- 42. NOx 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]
- 43. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201 and 4309]
- 44. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201 and 4309]
- 45. Stack gas velocity or volumetric flow rate shall be determined using EPA Methods 2, 2A, or 2D. [District Rule 2201]
- 46. For initial and annual testing purposes, one RTO system inlet and outlet may be sampled to determine compliance with various emission limits (i.e., NOx and CO limits Startup and steady state, 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 emission limit in this permit shall constitute violation of permits N-8234-4, '-5 and '-6. [District Rule 2201]

- 47. Source testing shall be conducted by selecting pet food recipe(s) that generates most odorous compounds. 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 ground 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]
- 48. 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 60 days of the 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]
- 49. Source testing to determine compliance with PM10 emission limit (0.0612 lb/ton of finished product produced) shall be conducted within 60 days of the initial startup under this permit. [District Rule 2201]
- 50. The process emissions shall be calculated as follows: VOC (lb/hr) = VOCinlet of the RTO (lb/hr) VOCoutlet of the RTO (lb/hr). VOCoutlet of the RTO (lb/hr) = VOCmeasured at the outlet of RTO (lb/hr) VOCnatural gas combustion in the RTO (lb/hr). PM10 (lb/hr) = PM10outlet of the RTO (lb/hr) PM10natural 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]
- 51. 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]
- 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, dryer cooler 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. [District Rule 2201]
- 53. The District may, at its discretion, require VOC source testing and odor panel testing at any time should conditions at the facility or the surrounding area warrant 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 line that are operated, (3) name of the recipe being produced, (4) amount of ground meat injected rate, excluding moisture, into the steam-conditioner, (5) processing rate of finished product produced, tons/hour, (6) maximum processing rate of finished product produced, tons/hour, (7) RTO chamber temperature data (degrees Fahrenheit), (8) actual amount of fuel combusted in the dryer(s) and (9) actual amount of fuel combusted in the RTO. [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]

- 56. 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) ground 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 during startup period, in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period, (8) heat input rate to each RTO during steady state period, in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period, and (9) the combined total heat input rate to each RTO in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period. [District Rule 2201]
- 57. 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]
- 58. 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]
- 59. 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]
- 60. Authority to Construct (ATC) permits N-8234-10-1 and N-8234-11-1 shall be implemented prior to, or concurrently with the implementation of this permit. [District Rule 2201]





PERMIT NO: N-8234-6-10

ISSUANCE DATE: 04/10/2018

LEGAL OWNER OR OPERATOR: DIAMOND PET FOOD PROCESSORS OF RIPON

942 S STOCKTON AVE

MAILING ADDRESS:

RIPON, CA 95366

LOCATION:

942 S STOCKTON AVE

RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD PROCESSING LINE #3: INSTALL THREE 6.0 MMBTU/HR (EACH) 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

CONDITIONS

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. 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]
- 3. 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]
- 4. 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]
- 5. 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]

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.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

- 6. 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]
- 7. 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 discharge exhaust from the dryer cooler cyclone (MAC) into the duct connected to the RTO. [District Rules 2201 and 4102]
- 8. 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]
- 9. 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. Each dumpster receiving fines (rejects) shall be equipped with a tight-fitting lid with a static sock filter. [District Rule 2201]
- 10. 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]
- 11. 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 14 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. Each barrel shall have a tight-fitting lid with an optional static sock filter. 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]
- 12. The owner or operator shall install, operate and maintain three identical Durr Systems, Inc.'s Ecopure RL-60 regenerative thermal oxidizers (RTO), 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), dryer cooler cyclone (MAC) and vertical cooler cyclone (MAC HE52). [District Rules 2201 and 4102]
- 13. 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, as long as the pet food manufacturing process operates. 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]
- 14. Each RTO shall be equipped with non-resettable fuel flow meter(s) to measure natural gas fuel flow into each RTO during various modes of operation (e.g., startup, steady state, etc.). [District Rule 2201]
- 15. The RTO(s) shall operate at or above the minimum steady-state average operating combustion chamber temperature established during the initial source test, when pet food manufacturing is occurring. [District Rule 2201]
- 16. The minimum steady state average RTO combustion chamber temperature (degree Fahrenheit) shall be determined during the initial source test while achieving compliance with the 95% VOC emissions control efficiency. This temperature limit shall be included in the Permit to Operate. [District Rule 2201]
- 17. 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]
- 18. The dryer and RTO(s) shall only be fired on PUC-quality natural gas. [District Rule 2201]

- 19. PM10 emissions from the operations (not including PM10 emissions from natural gas combustion in the RTO) covered under this permit shall not exceed 0.0612 pounds per ton of finished material produced. [District Rule 2201]
- 20. The post control VOC emissions from the operations (not including VOC emissions from natural gas combustion in the RTO) covered under this permit shall not exceed 0.005 pounds per ton of finished material produced. [District Rule 2201]
- 21. No more than 36 tons of ground meat, excluding moisture, shall be injected into the steam-conditioner in any one day.

 [District Rule 2201]
- 22. The amount of finished product produced under this line shall not exceed 780 tons in any one day. [District Rule 2201]
- 23. 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]
- 24. 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]
- 25. 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]
- 26. During startup period, emissions due to natural gas combustion in each RTO shall not exceed any of the following limits: 0.883 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 1.41 lb-CO/MMBtu and 0.0055 lb-VOC/MMBtu. [District Rule 2201]
- 27. During startup period, heat input rate to each RTO shall not exceed any of the following limits: 30 MMBtu/day and 210 MMBtu/year (12-month rolling total). [District Rule 2201]
- 28. Except during startup period, emissions due to natural gas combustion in each RTO shall not exceed any of the following limits: 0.072 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 1.2 lb-CO/MMBtu and 0.0055 lb-VOC/MMBtu. [District Rule 2201]
- 29. The combined total heat input rate to each RTO (i.e., heat input rate during startup period, as well as, heat input rate during steady state period) shall not exceed any of the following limits: 144 MMBtu/day, and 41,513 MMBtu/year (12-month rolling total). [District Rule 2201]
- 30. The permittee shall monitor and record the stack concentration of NOx, 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]
- 31. 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]
- 32. If either the dryer NOx or CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been reestablished, 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]

- 33. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]
- 34. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
- 35. 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]
- 36. 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]
- 37. 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]
- 38. Source testing to determine NOx 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]
- 39. All dryer test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309]
- 40. Source testing to measure startup NOx and CO emissions from the RTO system, when the RTO chamber burner is operating, shall be conducted within 60 days of initial startup. The owner or operator shall collect samples from the outlet of an RTO, while the equipment is being warmed up before treating the contaminated stream from the pet food manufacturing line(s). If the startup period is shorter than the required three 30 minutes runs, then a shorter period may be allowed, upon District's Compliance Division's discretion. Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
- 41. Source testing to measure steady state NOx and CO emissions from the RTO system, when the natural gas injection system is operating (no burner operation), shall be conducted within 60 days of initial startup. The NOx and CO emissions shall be calculated as follows: Pollutant (lb/hr) = Pollutant outlet (lb/hr) Pollutant inlet (lb/hr), where Pollutant outlet = NOx or CO emissions at the exhaust of the RTO, Pollutant inlet = NOx or CO emissions from the latest source test for dryer(s) x actual natural gas fuel heat input rate (MMBtu/hr) in the dryer(s). The resulting emissions shall be translated to heat input basis (MMBtu/hr) using the actual heat input rate to the RTO to demonstrate compliance with NOx and CO emission factors. Should the permittee decide to use a different test methodology, the methodology must be approved by the District. [District Rule 2201]
- 42. NOx 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]
- 43. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201 and 4309]
- 44. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201 and 4309]
- 45. Stack gas velocity or volumetric flow rate shall be determined using EPA Methods 2, 2A, or 2D. [District Rule 2201]
- 46. For initial and annual testing purposes, one RTO system inlet and outlet may be sampled to determine compliance with various emission limits (i.e., NOx and CO limits Startup and steady state, 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 emission limit in this permit shall constitute violation of permits N-8234-4, '-5 and '-6. [District Rule 2201]

- 47. Source testing shall be conducted by selecting pet food recipe(s) that generates most odorous compounds. 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 ground 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]
- 48. 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 60 days of the 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]
- 49. Source testing to determine compliance with PM10 emission limit (0.0612 lb/ton of finished product produced) shall be conducted within 60 days of the initial startup under this permit. [District Rule 2201]
- 50. The process emissions shall be calculated as follows: VOC (lb/hr) = VOCinlet of the RTO (lb/hr) VOCoutlet of the RTO (lb/hr). VOCoutlet of the RTO (lb/hr) = VOCmeasured at the outlet of RTO (lb/hr) VOCnatural gas combustion in the RTO (lb/hr). PM10 (lb/hr) = PM10outlet of the RTO (lb/hr) PM10natural 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]
- 51. 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]
- 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, dryer cooler 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. [District Rule 2201]
- 53. The District may, at its discretion, require VOC source testing and odor panel testing at any time should conditions at the facility or the surrounding area warrant 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 line that are operated, (3) name of the recipe being produced, (4) amount of ground meat injected rate, excluding moisture, into the steam-conditioner, (5) processing rate of finished product produced, tons/hour, (6) maximum processing rate of finished product produced, tons/hour, (7) RTO chamber temperature data (degrees Fahrenheit), (8) actual amount of fuel combusted in the dryer(s) and (9) actual amount of fuel combusted in the RTO. [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]

- 56. 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) ground 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 during startup period, in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period, (8) heat input rate to each RTO during steady state period, in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period, and (9) the combined total heat input rate to each RTO in MMBtu/day and in MMBtu/year on a rolling 12 consecutive month period. [District Rule 2201]
- 57. 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]
- 58. 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]
- 59. 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]
- 60. Authority to Construct (ATC) permits N-8234-10-1 and N-8234-11-1 shall be implemented prior to, or concurrently with the implementation of this permit. [District Rule 2201]





PERMIT NO: N-8234-10-1

ISSUANCE DATE: 04/10/2018

LEGAL OWNER OR OPERATOR: DIAMOND PET FOOD PROCESSORS OF RIPON

MAILING ADDRESS:

LOCATION:

942 S STOCKTON AVE

RIPON, CA 95366

942 S STOCKTON AVE

RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF 14.65 MMBTU/HR CLEAVER BROOKS CBLE 700-350, 150# BOILER EQUIPPED WITH CLEAVER BROOKS CB-350 LOW NOX BURNER VENTED TO C&C PANASIA MODEL PANOX CP-12 SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM (BOILER #1): TO ESTABLISH COMBINED ANNUAL HEAT INPUT RATE FOR BOILERS (N-8234-10 AND N-8234-11)

CONDITIONS

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 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]
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
- The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
- The unit shall only be fired on PUC-quality natural gas. [District Rules 2201 and 4320]
- A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rule 2201 and 40 CFR 60.48c(g)]
- The combined total heat input rate to the boilers under permits N-8234-10 and N-8234-11 shall not exceed 128,334 MMBtu in any 12 consecutive month rolling period. [District Rule 2201]
- NOx emissions shall not exceed 9.0 ppmvd @ 3% O2 (0.011 lb/MMBtu) referenced as NO2. [District Rules 2201, 4305, 4306 and 4320]
- CO emissions shall not exceed 50 ppmvd @ 3% O2 (0.037 lb/MMBtu). [District Rules 2201, 4305, 4306 and 4320]

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.

Seved Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

- 10. SOx emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201]
- 11. PM10 emissions shall not exceed 0.003 lb/MMBtu. [District Rule 2201]
- 12. VOC emissions shall not exceed 0.004 lb/MMBtu. [District Rule 2201]
- 13. NH3 emissions from the SCR shall not exceed 10.0 ppmvd @ 3% O2. [District Rule 2201]
- 14. 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]
- 15. Source testing to measure NOx, CO, and NH3 emissions from this unit while fired on natural gas shall be conducted at least once every twelve months. After demonstrating compliance on two consecutive annual source tests when unit is fired on natural gas, the unit shall be tested not less than once every thirty-six months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve months. [District Rules 2201, 4305, 4306 and 4320]
- 16. NOx 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 4305, 4306, and 4320]
- 17. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320]
- 18. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320]
- 19. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081]
- 20. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320]
- 21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320]
- 22. 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 4320. [District Rules 4305, 4306, and 4320]
- 23. 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 4305, 4306, and 4320]
- 24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
- 25. The permittee shall monitor and record the stack concentration of NOx, CO, NH3 and O2 at least once during each month in which source testing is not performed. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH3 monitoring shall be conducted utilizing gas detection tubes (Draeger brand or District approved equivalent). 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 it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320]
- 26. If either the NOx, CO or NH3 concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following 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 that is subject to enforcement action has occurred. 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 Rules 2201, 4305, 4306 and 4320]

- 27. All NOx, CO, O2 and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and O2 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306 and 4320]
- 28. Ammonia emissions readings shall be conducted at the time the NOx, CO and O2 readings are taken. The readings shall be converted to ppmvd @ 3% O2. [District Rules 2201, 4305 and 4306]
- 29. The permittee shall maintain records of: (1) the date and time of NOx, CO, NI-I3 and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx, CO and NI-I3 concentrations corrected to 3% O2, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NI-I3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rules 2201, 4305, 4306 and 4320]
- 30. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320]
- 31. The permittee shall maintain records of the date, type of fuel, amount of the fuel combusted (scf/day) by the boiler. [40 CFR 60.48c(g)]
- 32. The permittee shall maintain monthly records of the total heat input rate (MMBtu) to the boilers under permits N-8234-10 and N-8234-11 in the previous 12 consecutive months. [District Rule 2201]
- 33. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070, 2201, 4305, 4306 and 4320]





PERMIT NO: N-8234-11-1

ISSUANCE DATE: 04/10/2018

LEGAL OWNER OR OPERATOR: DIAMOND PET FOOD PROCESSORS OF RIPON

MAILING ADDRESS:

942 S STOCKTON AVE

LOCATION:

942 S STOCKTON AVE

RIPON, CA 95366

RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF 14.65 MMBTU/HR CLEAVER BROOKS CBLE 700-350, 150# BOILER EQUIPPED WITH CLEAVER BROOKS CB-350 LOW NOX BURNER VENTED TO C&C PANASIA MODEL PANOX CP-12 SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM (BOILER #2): TO ESTABLISH COMBINED ANNUAL HEAT INPUT RATE FOR BOILERS (N-8234-10 AND N-8234-11)

CONDITIONS

- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 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]
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
- The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
- The unit shall only be fired on PUC-quality natural gas. [District Rules 2201 and 4320]
- A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rule 2201 and 40 CFR 60.48c(g)]
- The combined total heat input rate to the boilers under permits N-8234-10 and N-8234-11 shall not exceed 128,334 MMBtu in any 12 consecutive month rolling period. [District Rule 2201]
- NOx emissions shall not exceed 9.0 ppmvd @ 3% O2 (0.011 lb/MMBtu) referenced as NO2. [District Rules 2201, 4305, 4306 and 43201
- CO emissions shall not exceed 50 ppmvd @ 3% O2 (0.037 lb/MMBtu). [District Rules 2201, 4305, 4306 and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

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Seved Sadredin, Executive Director / APCO

Arnaud Mariollet, Director of Permit Services

- 10. SOx emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201]
- 11. PM10 emissions shall not exceed 0.003 lb/MMBtu. [District Rule 2201]
- 12. VOC emissions shall not exceed 0.004 lb/MMBtu. [District Rule 2201]
- 13. NH3 emissions from the SCR shall not exceed 10.0 ppmvd @ 3% O2. [District Rule 2201]
- 14. 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]
- 15. Source testing to measure NOx, CO, and NH3 emissions from this unit while fired on natural gas shall be conducted at least once every twelve months. After demonstrating compliance on two consecutive annual source tests when unit is fired on natural gas, the unit shall be tested not less than once every thirty-six months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve months. [District Rules 2201, 4305, 4306 and 4320]
- 16. NOx 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 4305, 4306, and 4320]
- 17. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320]
- 18. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320]
- 19. Source testing for ammonia slip shall be conducted utilizing BAAQMD Mcthod ST-1B. [District Rule 1081]
- 20. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320]
- 21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320]
- 22. 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 4320. [District Rules 4305, 4306, and 4320]
- 23. 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 4305, 4306, and 4320]
- 24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
- 25. The permittee shall monitor and record the stack concentration of NOx, CO, NH3 and O2 at least once during each month in which source testing is not performed. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH3 monitoring shall be conducted utilizing gas detection tubes (Draeger brand or District approved equivalent). 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 it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320]
- 26. If either the NOx, CO or NH3 concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following 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 that is subject to enforcement action has occurred. 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 Rules 2201, 4305, 4306 and 4320]

- 27. All NOx, CO, O2 and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and O2 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306 and 4320]
- 28. Ammonia emissions readings shall be conducted at the time the NOx, CO and O2 readings are taken. The readings shall be converted to ppmvd @ 3% O2. [District Rules 2201, 4305 and 4306]
- 29. The permittee shall maintain records of: (1) the date and time of NOx, CO, NH3 and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx, CO and NH3 concentrations corrected to 3% O2, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rules 2201, 4305, 4306 and 4320]
- 30. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320]
- 31. The permittee shall maintain records of the date, type of fuel, amount of the fuel combusted (scf/day) by the boiler. [40 CFR 60.48c(g)]
- 32. The permittee shall maintain monthly records of the total heat input rate (MMBtu) to the boilers under permits N-8234-10 and N-8234-11 in the previous 12 consecutive months. [District Rule 2201]
- 33. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070, 2201, 4305, 4306 and 4320]