



February 25, 2014

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-1130470

Dear Mr. Ferguson:

The Air Pollution Control Officer has issued the Authority to Construct permits to Diamond Pet Food Processors of Ripon for a proposal to re-establish emission limits and processing rates and install emission control equipment for the pet food manufacturing operations, at 942 South Stockton Ave, 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 January 21, 2014. The District's analysis of the proposal was also sent to CARB on January 15, 2014.

All comments received following the District's preliminary decision on this project were considered. These comments did not result any changes to the permit conditions. The District response to each comment is attached to this letter.

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.

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Executive Director/Air Pollution Control Officer

Northern Region 480D 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 Mr. Mark Ferguson Page 2

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

Sirice/ely,

David Warner

Director of Permit Services

DW: JK

Enclosures

cc: Mike Tollstrup, CARB (w/enclosure) via email

Ken Zuidervaart, City of Ripon via e-mail and hard copy via regular mail

Annette Ballatore-Williamson, District Counsel, SJVAPCD via e-mail

Morgan Lambert, Director of Compliance, SJVAPCD via e-mail

John Cadrett, Manager, Compliance (Northern Region), SJVAPCD via e-mail

District Response to the Comments from Diamond Pet Food Processors of Ripon

Comment #1:

Diamond has previously performed multiple VOC source tests for the exhaust streams, and has VOC information readily available. Since the purpose of the cold plasma injection is solely for odor control, and the pre-survey in Section 16 of EPA Method 18 is to be conducted for sources where the target pollutants are not known from previous tests and/or process knowledge, Diamond proposes to use the VOC information from the previous source tests to establish the list of target compounds rather than requiring a pre-survey. Therefore, we request that condition no. 33 be revised to state:

33. "A presurvey must be done prior to source testing to determine VOC compound analytes present in the effluent stream downstream of each cold plasma injection system using the methodology described in EPA Method 18, Section 16, The presurvey-Previous VOC source test results 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 using the VOC source test results from the previous source test, 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]"

District's Response:

The proposed changes to condition 32 are not acceptable. As far as the District is aware not all discharge stacks have been pre-surveyed to establish a list of VOC compounds for the subsequent VOC testing.

However, for any stack that has been pre-surveyed, Diamond may use the results of that pre-survey provided that Diamond plans to produce same pet food recipe (i.e., the recipe produced during that pre-survey) for the new set of source testing; otherwise, Diamond must conduct a new presurvey on each stack.

Comment #2:

Based on our understanding of source testing for VOCs, and after discussing the provisions with several source test experts, we respectfully request the following addition to condition 32 (shown in **bold**) and confirm our understanding with respect to the source test conditions, as described below.

Total VOC emissions (lb-VOC/ton of finished material produced) shall include VOC emissions from the following release points by collecting samples downstream of the cold plasma injection system serving: (1) Hot kibble conveying cyclone (HT-68), (2) dryer cyclone MAC HE60, (3) dryer cooler MAC cyclone, and (4) vertical cooler cyclone MAC HE-52. The VOC test results may be substituted for identical set-up lines under permits N-8234-4 and N-8234-5 instead of performing separate VOC tests for these units. [District Rule 2201]

District's Response:

The proposed changes to condition 32 are not acceptable. Diamond claims that because the pet food processing lines are identical, the VOC (and odor) emissions from each line are therefore also identical. However, this claim has never been verified. Given the ongoing nuisance concerns the facility is generating, the District believes it is necessary to conduct a full set of emission tests on each line to ensure that even slight variation in recipe and/or cooking parameters do not adversely affect the magnitude of VOC emissions.

Comment #3:

Condition 33 on the draft ATCs N-8234-4-1, '-5-1 and '-6-1 state;

33. A presurvey must be done prior to source testing to determine VOC compound analytes present in the effluent stream downstream of each cold plasma injection system 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]

With respect to the presurvey requirement, we want to confirm our understanding of the following issues:

- 1. The purpose is to: "... develop a specific list of target compounds to be quantified during the subsequent total VOC source testing".
- 2. Previously, TO-15 testing was submitted for the Dryer, Dryer-Cooler, and Vertical Cooler exhausts. SJVAPCD has reviewed and agrees that the previous TO-15

- testing provides the basis for a specific list of target compounds of VOCs for these sources.
- 3. We understand that no additional pre-testing is required for these units and that the modified Method 18 testing is acceptable going forward.
- 4. For the Wet Cyclone, we understand that a TO-15 test which only identifies the target compounds is all that is required, so that a specific list of target compounds can be develop for the actual test, which will be done with a modified Method 18 test (as requested in the condition.)
- 5. Because the equipment is identical in each of the lines, we do not expect that TO-15 or any other testing (e.g., Method 18 or other) would be required to be duplicated to measure for VOCs to demonstrate compliance with District Rule 2201. Hence, the provision noted above for condition 32, should be returned to the current Draft ATC, as was in the prior version.

District's Response:

1. The purpose is to: "... develop a specific list of target compounds to be quantified during the subsequent total VOC source testing".

District's Response: Diamond's understanding is correct.

2. Previously, TO-15 testing was submitted for the Dryer, Dryer-Cooler, and Vertical Cooler exhausts. SJVAPCD has reviewed and agrees that the previous TO-15 testing provides the basis for a specific list of target compounds of VOCs for these sources.

<u>District's Response</u>: Should Diamond propose to use the previously approved methods for the new set of emission tests, it is likely that those methods will be approved. The District recommends that Diamond identify test methods in the source testing protocol.

- 3. We understand that no additional pre-testing is required for these units and that the modified Method 18 testing is acceptable going forward.
 - <u>District's Response</u>: Please refer to the District's response under comment #1 and comment #3 item 2.
- 4. For the Wet Cyclone, we understand that a TO-15 test which only identifies the target compounds is all that is required, so that a specific list of target compounds can be develop for the actual test, which will be done with a modified Method 18 test (as requested in the condition.)
 - <u>District's Response</u>: The District recommends that Diamond identify test methods in the source testing protocol.
- 5. Because the equipment is identical in each of the lines, we do not expect that TO-15 or any other testing (e.g., Method 18 or other) would be required to be duplicated to

measure for VOCs to demonstrate compliance with District Rule 2201. Hence, the provision noted above for condition 32, should be returned to the current Draft ATC, as was in the prior version.

<u>District's Response</u>: Please refer to the District's response under comment #2.





ISSUANCE DATE: 02/25/2014 PERMIT NO: N-8234-1-2

LEGAL OWNER OR OPERATOR: DIAMOND PET FOOD PROCESSORS OF RIPON

MAILING ADDRESS:

942 SOUTH STOCKTON AVENUE

RIPON. CA 95366

LOCATION:

942 SOUTH STOCKTON AVENUE

RIPON. CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD MATERIAL RECEIVING AND STORAGE OPERATION: ESTABLISH ANNUAL PROCESSING RATE

CONDITIONS

- The Authority to Construct (ATC) N-8234-1-1 shall be implemented prior, or concurrently with the implementation of this permit. [District Rule 2201]
- Receiving Equipment: Two rail car receiving pits (pit #1 and pit #2), one truck receiving pit (pit #3), four enclosed screw conveyors, two Prater scalpers, two enclosed belt conveyors, and two enclosed bucket elevators each feeding enclosed drag A and B screw conveyors. The rail car receiving pit (pit #1) and the truck receiving pit (pit #3) delivers the product to the enclosed screw conveyor from where the material transfers into a Prater scalper. The accepts from the scalper transfer to another enclosed screw conveyor to an enclosed belt conveyor that delivers the material into an enclosed bucket elevator (leg #2) feeding enclosed drag A and B screw conveyors that fills the silos and or bins mentioned in the storage equipment (below). The railcar receiving pit (pit #2) has a conveying mechanism set up identical to the rail car receiving pit (pit #1) and the truck receiving pit (pit #3). The rail car receiving pit (#1) and the truck pit (#3) uses a bucket elevator (leg #1). The rail car receiving pit (2) uses a bucket elevator (leg #2). Each receiving pit shall have a choke feed system. The rail car receiving pit (#1), the truck receiving pit (#3), Prater scalper, the bucket elevator (leg #1) all shall be vented to a CAMCORP Model 10TR10x100 baghouse. The rail car receiving pit (#2), Prater scalper, the enclosed elevators and the bucket elevator (leg #2) all shall be vented to another CAMCORP Model 10TR10x100 baghouse. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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

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- 3. Storage Equipment: Three 21,430 cubic feet each approx. 21.5' dia, 58.8' side wall silos and six 2,560 cubic feet each approx. 8' x 8' x 40' side wall in storage area A being fed by drag A enclosed screw conveyor, three 21,430 cubic feet each approx. 21.5' dia, 58.8' side wall and six 2,560 cubic feet each approx. 8' x 8' x 40' side wall in storage area B being fed by drag B enclosed screw conveyor. Each silo and bin shall be equipped with HORIZON SYSTEMS Model 21VFTC6 (or equal) cartridge dust collector system. [District Rule 2201]
- 4. The truck loadout spout shall have a sock filter to minimize entrainment of material dust into the atmosphere. [District Rule 2201]
- 5. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 6. Particulate matter, at exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
- 7. 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]
- 8. 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]
- 9. The total PM10 emissions from this permit unit shall not exceed 0.0015 pounds per ton of material received or loaded out. [District Rule 2201]
- 10. The combined amount of material received and loaded out shall not exceed 1,200 tons/day and 380,000 tons/year (12-month rolling basis). [District Rule 2201]
- 11. The owner or operator shall keep record of the date, amount of material received (in tons), and amount of material loaded out (in tons). [District Rule 2201]
- 12. The owner or operator shall keep monthly records of the total material received and loaded out under this permit.

 These monthly records shall be used to determine compliance with annual processing rate limit on a 12-month rolling basis. [District Rule 2201]
- 13. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]





ISSUANCE DATE: 02/25/2014 PERMIT NO: N-8234-2-2

LEGAL OWNER OR OPERATOR: DIAMOND PET FOOD PROCESSORS OF RIPON

MAILING ADDRESS:

942 SOUTH STOCKTON AVENUE

RIPON, CA 95366

LOCATION:

942 SOUTH STOCKTON AVENUE

RIPON. CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD MATERIAL DISPENSING, PRE-GRINDING, CONVEYING AND STORAGE OPERATIONS: RE-ESTABLISH PM10 LIMITS AND PROCESSING RATES

CONDITIONS

- This Authority to Construct (ATC) permit cancels and replaces the ATC N-8234-2-1. [District Rule 2201]
- Dispensing System: The material in three 21,430 cubic feet (each) silos in storage area A (West) shall be dispensed into an enclosed drag screw conveyor A-1 and/or A-2, and the material in six 2,560 cubic feet (each) bins in storage area A may be dispensed into a pre-grind mill or directly to enclosed belt conveyor C and or D. The material in three 21,430 cubic feet (each) silos and six 2,560 cubic feet (each) bins in storage area B (East) shall be dispensed into an enclosed drag screw conveyor A-3 and/or A-4 and then dispensed into enclosed belt conveyor C and or D. [District Rule 2201]
- 3. Pre-grind System: This system consists of a hammermill and screen (one package unit) system. This system shall be vented to a MAC 96 LDT 64 STYLE II baghouse via a plenum with auger. The ground material from pre-grind system shall be conveyed through the diverters to enclosed belt conveyors C and or D. [District Rule 2201]
- Conveying and Storage System: The enclosed drag screw conveyors A1, A-2, A-3 and A-4 transfer the material into enclosed belt conveyor C and/or D. Enclosed belt conveyor C and/or D transfers material into an enclosed bucket elevators (leg #3, leg #4) that feeds any of the 75 bins in the mill tower. The enclosed bucket elevators (leg #3, leg #4), drag screw conveyors, and each mill tower bin shall be equipped with HORIZON SYSTEMS Model 21VFTC6 (or equal) cartridge dust collector systems. [District Rule 2201]
- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

CONDITIONS CONTINUE ON NEXT PAGE

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- 6. Particulate matter, at exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
- 7. All exhaust stacks under this permit shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
- 8. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
- 9. Visible emissions, at the exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.) shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
- 10. PM10 emissions from the baghouse serving the pre-grind system shall not exceed 0.021 pounds per ton of material processed. [District Rule 2201]
- 11. The amount of material processed through the pre-grind system shall not exceed 400 tons/day and 50,000 tons/year (12-month rolling basis). [District Rule 2201]
- 12. PM10 emissions from material transfer and storage operations covered under this permit shall not exceed 0.00025 pounds per ton of material stored. [District Rule 2201]
- 13. No more than 800 tons/day and 50,000 tons/year (12-month rolling basis) of total material, that is processed in pregrind grind system and dispensed from other outdoor silos/bins, shall be transferred to storage bins in the mill tower. [District Rule 2201]
- 14. The owner or operator shall keep records of the date, material processed in the pre-grind system, and the total material transferred to storage bins in the mill tower. [District Rule 2201]
- 15. The owner or operator shall keep monthly records of the total material processed in the pre-grind system, and the material transferred to storage bins in the mill tower. These monthly records shall be used to determine compliance with annual processing rate limits on a 12-month rolling basis. [District Rule 2201]
- 16. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]





PERMIT NO: N-8234-3-2 **ISSUANCE DATE:** 02/25/2014

LEGAL OWNER OR OPERATOR:

DIAMOND PET FOOD PROCESSORS OF RIPON

MAILING ADDRESS:

942 SOUTH STOCKTON AVENUE

RIPON. CA 95366

LOCATION:

942 SOUTH STOCKTON AVENUE

RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD MATERIAL DISPENSING, MIXING, GRINDING AND SCREENING, EXTRUSION SURGE BINS. AND ASSOCIATED CONVEYING OPERATION: RE-ESTABLISH PM10 LIMITS AND PROCESSING RATES

CONDITIONS

- This Authority to Construct (ATC) permit cancels and replaces the ATC N-8234-3-1. [District Rule 2201]
- 2. Dispensing System: The material is dispensed from the bins in the mill tower to their associated scale bins. There are 4 scale bins located under the 75 bins. Each scale services approximately 25% of the bins in the mill tower. The four scale bins dispense into a six ton dual ribbon mixer described in item the condition below. Each scale bin shall be equipped with HORIZON SYSTEMS Model 21VFTC6 (or equal) cartridge dust collector system. [District Rule 2201]
- 3. Mixing and Conveying System: The material in the 4 scale bins is dispensed into an enclosed six ton dual ribbon mixer. There is one mixer surge bin with a connected screw conveyor that transfers the material into another screw conveyor served by HORIZON SYSTEMS MODEL 21VFTC6 (or equal) dust collector system that either transfers the material into an enclosed bucket elevator feeding an enclosed transfer auger or a portion of the material into a truck loadout spout. The enclosed transfer auger feeds three surge bins one associated with each hammer mill. Each surge bin shall be equipped with HORIZON SYSTEMS MODEL 21VFTC6 (or equal) dust collector system. The truck loadout spout distributes product into a turn-head that services 4 unloading bins. Each unloading bin is vented with HORIZON SYSTEMS Model 21VFTC6 (or equal) dust collector system. The loadout spout of each unloading bin shall have a sock filter to minimize entrainment of material dust into the atmosphere. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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- 4. Grinding, Screening, and Conveying System: There are three identical hammermill systems. Each system consists of a hammer mill feeding system, a hammermill, a hammermill plenum, an enclosed screw conveyor, a vibratory screener, and a pneumatic transfer system (bin vent filter with static socks) transferring overs from the screener to the surge bin of hammermill. Each hammermill/plenum shall be equipped with MAC LST AIR 96LST196 (or equal) baghouse. Each vibratory screener shall be vented to HORIZON SYSTEMS MODEL 21VFTC6 (or equal) cartridge filter. The ground material from each hammermill system shall be pneumatically transferred using a filter receiver system into three sets of a paired extruder surge bin system (mentioned in the condition below). The displaced air from the filter receiver system shall be vented through a HORIZON SYSTEMS 40SWRDL 16 (or equal) baghouse. [District Rule 2201]
- 5. Extruder Surge Bins: Three sets of identical extruder surge bins, each set contains two bins, each with dimensions approx. 8' x 8' x 20', and each bin shall be equipped with HORIZON SYSTEMS MODEL 21VFTC6 (or equal) cartridge dust collector system. [District Rule 2201]
- 6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 7. Particulate matter, at exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
- 8. 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]
- 9. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
- 10. 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]
- 11. PM10 emissions from each hammermill system shall not exceed 0.021 pounds per ton of material processed. [District Rule 2201]
- 12. The amount of material processed through each hammermill system shall not exceed 800 tons in any one day. [District Rule 2201]
- 13. The total material processed through all three hammermill systems shall not exceed 800 tons in any one day. [District Rule 2201]
- 14. PM10 emissions from the truck loadout operation shall not exceed 0.000917 pounds per ton of material loaded into trucks. [District Rule 2201]
- 15. No more than 800 tons of material shall be processed or loaded into trucks using truck loadout spout in any one day. [District Rule 2201]
- 16. The permittee shall keep records of the date, the amount of total material processed in hammer mill systems, and the amount of material loaded into trucks. [District Rule 2201]
- 17. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]





PERMIT NO: N-8234-4-1

ISSUANCE DATE: 02/25/2014

LEGAL OWNER OR OPERATOR: DIAMOND PET FOOD PROCESSORS OF RIPON

MAILING ADDRESS:

942 SOUTH STOCKTON AVENUE

RIPON, CA 95366

LOCATION:

942 SOUTH STOCKTON AVENUE

RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD PROCESSING LINE #1: RE-ESTABLISH VOC AND PM10 EMISSION LIMITS AND PROCESSING RATES

CONDITIONS

- This Authority to Construct (ATC) permit cancels and replaces the ATC N-8234-4-0. [District Rule 2201] 1.
- 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 (or equal) high volume cyclone with a static sock. The owner or operator shall install, maintain, and operate Uniquir's, 6kW, 6 plasma cylinders, cold plasma injection system to abate odors in laden air stream from the wet cyclone (Horizon HT-68) prior to being discharged into the atmosphere. [District Rules 2201 and 4102]
- Dryer System: The system consists of EXTRU-TECH 1053-2P-AF11, 10 MMBtu/hr (total) direct-fired natural gas fired dryer with five drying sections, each section equipped with an ECLIPSE WINNOX WX0200 burner rated with a maximum heat input rate of 2.0 MMBtu/hr. The dryer exhaust is vented to a MAC HE60 (or equal) high efficiency cyclone. The owner or operator shall install, maintain, and operate Uniqair's, 15kW, 15 plasma cylinders, cold plasma injection system to abate odors in laden air stream from the dryer cyclone (MAC HE60) prior to being discharged into the atmosphere. [District Rules 2201 and 4102]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director

- 4. Cooler and Conveying System: The system consists of three cooler sections, all vented to MAC high efficiency cyclone, a discharge conveyor transfer dried kibbles into a hopper. The material from the hopper is pneumatically conveyed to an enclosed shaker screener. The owner or operator shall install, maintain, and operate Uniquir's, 9 kW, 9 plasma cylinders, cold plasma injection system to abate odors in laden air stream from the dryer cooler cyclone (MAC) prior to being discharged into the atmosphere. [District Rules 2201 and 4102]
- 5. 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 vent these fines to a HORIZON SYSTEMS 285 WRDL8 (or equal) baghouse. This baghouse is vented indoors. [District Rule 2201]
- 6. 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 conveyed to the totes in the basement. The surge bin shall be vented to a HORIZON SYSTEMS MODEL 21VFTC6 (or equal) cartridge dust collector system. Each tote shall have tight-fitting top lid with a static sock filter. [District Rule 2201]
- 7. 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 filter receiver system with a static sock. [District Rule 2201]
- 8. Vertical Cooler and Conveying System: A vertical cooler vented to a MAC HE52 (or equal) high efficiency cyclone. The dried material falls on a vibratory pan on sliding rails. The material (accepts) from 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 HORIZON SYSTEMS MODEL 21VFTC6 (or equal) cartridge dust collector system. The fines (rejects) from MAC HE52 (or equal) cyclone discharge and vibratory pan are conveyed to the totes in the basement. Each tote shall have tight-fitting top lid with a static sock filter. The owner or operator shall install, maintain, and operate Uniquir's, 3 kW, 3 plasma cylinders, cold plasma injection system to abate odors in laden air stream from the vertical cooler cyclone (MAC HE52) prior to being discharged into the atmosphere. [District Rules 2201 and 4102]
- 9. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 10. Particulate matter, at exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
- 11. 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]
- 12. 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]
- 13. 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]
- 14. PM10 emissions from the operations covered under this permit shall not exceed 0.0612 pounds per ton of finished material produced. [District Rule 2201]
- 15. VOC emissions from the operations covered under this permit shall not exceed 0.037 pounds per ton of finished material produced. [District Rule 2201]
- 16. No more than 36 tons of ground meat shall be injected into the steam-conditioner in any one day. [District Rule 2201]
- 17. The amount of finished material produced under this line shall not exceed 780 tons in any one day. [District Rule 2201]
- 18. The total material processed through all pct food manufacturing lines (N-8234-4, '-5 and '-6) shall not exceed 780 tons in any one day. [District Rule 2201]
- 19. The dryer shall only be fired on PUC-regulated natural gas. [District Rule 2201]
- 20. 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]

- 21. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
- 22. 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]
- 23. 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]
- 24. 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]
- 25. Source testing to determine NOx and CO emissions from the dryer (at the exhaust stack of the MAC HE60 cyclone by obtaining samples downstream of the plasma injection system) shall be conducted within 60 days of startup under this permit, and at least once every 24 months thereafter. [District Rules 2201 and 4309]
- 26. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309]
- 27. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309]
- 28. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309]
- 29. All 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]
- 30. Stack gas velocity or volumetric flow rate shall be determined using EPA Methods 2, 2A, or 2D. [District Rule 2201]
- 31. Source testing to determine total VOC emissions (lb-VOC/ton of finished material produced) shall be conducted within 60 days of startup under this permit. [District Rules 2201 and 4102]
- 32. Total VOC emissions (lb-VOC/ton of finished material produced) shall include VOC emissions from the following release points by collecting samples downstream of the cold plasma injection system serving: (1) Hot kibble conveying cyclone (HT-68), (2) dryer cyclone MAC HE60, (3) dryer cooler MAC cyclone, and (4) vertical cooler cyclone MAC HE-52. [District Rule 2201]
- 33. A presurvey must be done prior to source testing to determine VOC compound analytes present in the effluent stream downstream of each cold plasma injection system 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]
- 34. Source testing to determine odor control efficiency of each cold plasma injection system shall be conducted within 60 days of startup under this permit. [District Rule 4102]
- 35. Odor control efficiency of each plasma injection system shall be determined at each of the following release points by collecting samples upstream as well as downstream of the plasma injection system serving: (1) Hot kibble conveying cyclone (HT-68), (2) dryer cyclone MAC HE60, (3) dryer cooler MAC cyclone, and (4) vertical cooler cyclone MAC HE-52. [District Rule 4102]

- 36. Odor threshold value to be used to determine the odor control efficiency of each cold plasma injection system shall be determined using ASTM International E679-04, Standard Practice for Determination of Odor and Taste Thresholds by a Forced-Choice Ascending Concentration Series Method of Limits, or other District approved alternative method. [District Rule 4102]
- 37. A sellable pet food product, containing at least 3% (by weight) of ground meat, shall be produced during VOC source testing and odor control efficiency testing. [District Rules 2201 and 4102]
- 38. The District may require VOC source testing and odor panel testing at any time after the initial test should conditions at the facility or the surrounding area warrant such testing. [District Rules 2201 and 4201]
- 39. The amount of ground meat injected in the steam-conditioner, finished product produced, and all other necessary parameters (exhaust flow rate, temperature, pressure, etc.), shall be recorded during VOC source testing and odor panel testing. [District Rules 2201 and 4102]
- 40. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
- 41. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]
- 42. If either the NOx or CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been 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]
- 43. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309]
- 44. 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]
- 45. Within 7 days of initial startup, the owner or operator shall identify and establish key operating parameters that will be continuously monitored and recorded for the optimum operation of each cold plasma injection system. [District Rules 2201 and 4102]
- 46. Within 15 days of initial startup, the owner or operator shall continuously measure and record at least every 15-minute the key operating parameters identified under above condition for each plasma injection system. The recorded parameters shall be averaged over a 60-minute block and compared with the established value for key operating parameter. Upon detecting any excursion, the permittee shall investigate the excursion and take corrective action to minimize odorous emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rules 2201 and 4102]
- 47. The owner or operator shall maintain records of the date, the amount of finished product produced under this line, and the total amount of finished product produced by all three manufacturing lines (N-8234-4, '-5 and '-6). [District Rule 2201]

48. 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]





PERMIT NO: N-8234-5-1

ISSUANCE DATE: 02/25/2014

LEGAL OWNER OR OPERATOR: DIAMOND PET FOOD PROCESSORS OF RIPON

MAILING ADDRESS:

942 SOUTH STOCKTON AVENUE

RIPON, CA 95366

LOCATION:

942 SOUTH STOCKTON AVENUE

RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD PROCESSING LINE #2: RE-ESTABLISH VOC AND PM10 EMISSION LIMITS AND PROCESSING RATES

CONDITIONS

- This Authority to Construct (ATC) permit cancels and replaces the ATC N-8234-5-0. [District Rule 2201]
- 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 (or equal) high volume cyclone with a static sock. The owner or operator shall install, maintain, and operate Uniquir's, 6kW, 6 plasma cylinders, cold plasma injection system to abate odors in laden air stream from the wet cyclone (Horizon HT-68) prior to being discharged into the atmosphere. [District Rules 2201 and 4102]
- Dryer System: The system consists of EXTRU-TECH 1053-2P-AF11, 10 MMBtu/hr (total) direct-fired natural gas fired dryer with five drying sections, each section equipped with an ECLIPSE WINNOX WX0200 burner rated with a maximum heat input rate of 2.0 MMBtu/hr. The dryer exhaust is vented to a MAC HE60 (or equal) high efficiency cyclone. The owner or operator shall install, maintain, and operate Uniquir's, 15kW, 15 plasma cylinders, cold plasma injection system to abate odors in laden air stream from the dryer cyclone (MAC HE60) prior to being discharged into the atmosphere. [District Rules 2201 and 4102]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, agrecifications 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 Constitut shall expire and application shall be cancelled two years from the date of Issuance. The applicant is responsible for complying with all laws, ord hances and regulations of all other governmental agencies which may pertain to the above equipment.

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- 4.. Cooler and Conveying System: The system consists of three cooler sections, all vented to MAC high efficiency cyclone, a discharge conveyor transfer dried kibbles into a hopper. The material from the hopper is pneumatically conveyed to an enclosed shaker screener. The owner or operator shall install, maintain, and operate Uniqair's, 9 kW, 9 plasma cylinders, cold plasma injection system to abate odors in laden air stream from the dryer cooler cyclone (MAC) prior to being discharged into the atmosphere. [District Rules 2201 and 4102]
- 5. 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 vent these fines to a HORIZON SYSTEMS 285 WRDL8 (or equal) baghouse. This baghouse is vented indoors. [District Rule 2201]
- 6. 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 conveyed to the totes in the basement. The surge bin shall be vented to a HORIZON SYSTEMS MODEL 21VFTC6 (or equal) cartridge dust collector system. Each tote shall have tight-fitting top lid with a static sock filter. [District Rule 2201]
- 7. 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 filter receiver system with a static sock. [District Rule 2201]
- 8. Vertical Cooler and Conveying System: A vertical cooler vented to a MAC HE52 (or equal) high efficiency cyclone. The dried material falls on a vibratory pan on sliding rails. The material (accepts) from 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 HORIZON SYSTEMS MODEL 21VFTC6 (or equal) cartridge dust collector system. The fines (rejects) from MAC HE52 (or equal) cyclone discharge and vibratory pan are conveyed to the totes in the basement. Each tote shall have tight-fitting top lid with a static sock filter. The owner or operator shall install, maintain, and operate Uniquir's, 3 kW, 3 plasma cylinders, cold plasma injection system to abate odors in laden air stream from the vertical cooler cyclone (MAC HE52) prior to being discharged into the atmosphere. [District Rules 2201 and 4102]
- 9. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 10. Particulate matter, at exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
- 11. 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]
- 12. 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]
- 13. 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]
- 14. PM10 emissions from the operations covered under this permit shall not exceed 0.0612 pounds per ton of finished material produced. [District Rule 2201]
- 15. VOC emissions from the operations covered under this permit shall not exceed 0.037 pounds per ton of finished material produced. [District Rule 2201]
- 16. No more than 36 tons of ground meat shall be injected into the steam-conditioner in any one day. [District Rule 2201]
- 17. The amount of finished material produced under this line shall not exceed 780 tons in any one day. [District Rule 2201]
- 18. The total material processed through all pet food manufacturing lines (N-8234-4, '-5 and '-6) shall not exceed 780 tons in any one day. [District Rule 2201]
- 19. The dryer shall only be fired on PUC-regulated natural gas. [District Rule 2201]
- 20. 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]

- 21. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
- 22. 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]
- 23. 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]
- 24. 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]
- 25. Source testing to determine NOx and CO emissions from the dryer (at the exhaust stack of the MAC HE60 cyclone by obtaining samples downstream of the plasma injection system) shall be conducted within 60 days of startup under this permit, and at least once every 24 months thereafter. [District Rules 2201 and 4309]
- 26. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309]
- 27. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309]
- 28. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309]
- 29. All 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]
- 30. Stack gas velocity or volumetric flow rate shall be determined using EPA Methods 2, 2A, or 2D. [District Rule 2201]
- 31. Source testing to determine total VOC emissions (lb-VOC/ton of finished material produced) shall be conducted within 60 days of startup under this permit. [District Rules 2201 and 4102]
- 32. Total VOC emissions (lb-VOC/ton of finished material produced) shall include VOC emissions from the following release points by collecting samples downstream of the cold plasma injection system serving: (1) Hot kibble conveying cyclone (HT-68), (2) dryer cyclone MAC HE60, (3) dryer cooler MAC cyclone, and (4) vertical cooler cyclone MAC HE-52. [District Rule 2201]
- 33. A presurvey must be done prior to source testing to determine VOC compound analytes present in the effluent stream downstream of each cold plasma injection system 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]
- 34. Source testing to determine odor control efficiency of each cold plasma injection system shall be conducted within 60 days of startup under this permit. [District Rule 4102]
- 35. Odor control efficiency of each plasma injection system shall be determined at each of the following release points by collecting samples upstream as well as downstream of the plasma injection system serving: (1) Hot kibble conveying cyclone (HT-68), (2) dryer cyclone MAC HE60, (3) dryer cooler MAC cyclone, and (4) vertical cooler cyclone MAC HE-52. [District Rule 4102]

- 36. Odor threshold value to be used to determine the odor control efficiency of each cold plasma injection system shall be determined using ASTM International E679-04, Standard Practice for Determination of Odor and Taste Thresholds by a Forced-Choice Ascending Concentration Series Method of Limits, or other District approved alternative method. [District Rule 4102]
- 37. A sellable pet food product, containing at least 3% (by weight) of ground meat, shall be produced during VOC source testing and odor control efficiency testing. [District Rules 2201 and 4102]
- 38. The District may require VOC source testing and odor panel testing at any time after the initial test should conditions at the facility or the surrounding area warrant such testing. [District Rules 2201 and 4201]
- 39. The amount of ground meat injected in the steam-conditioner, finished product produced, and all other necessary parameters (exhaust flow rate, temperature, pressure, etc.), shall be recorded during VOC source testing and odor panel testing. [District Rules 2201 and 4102]
- 40. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
- 41. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]
- 42. If either the NOx or CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been 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]
- 43. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309]
- 44. 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]
- 45. Within 7 days of initial startup, the owner or operator shall identify and establish key operating parameters that will be continuously monitored and recorded for the optimum operation of each cold plasma injection system. [District Rules 2201 and 4102]
- 46. Within 15 days of initial startup, the owner or operator shall continuously measure and record at least every 15-minute the key operating parameters identified under above condition for each plasma injection system. The recorded parameters shall be averaged over a 60-minute block and compared with the established value for key operating parameter. Upon detecting any excursion, the permittee shall investigate the excursion and take corrective action to minimize odorous emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rules 2201 and 4102]
- 47. The owner or operator shall maintain records of the date, the amount of finished product produced under this line, and the total amount of finished product produced by all three manufacturing lines (N-8234-4, '-5 and '-6). [District Rule 2201]

48. 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]





ISSUANCE DATE: 02/25/2014 PERMIT NO: N-8234-6-1

LEGAL OWNER OR OPERATOR: DIAMOND PET FOOD PROCESSORS OF RIPON

MAILING ADDRESS:

942 SOUTH STOCKTON AVENUE

RIPON. CA 95366

LOCATION:

942 SOUTH STOCKTON AVENUE

RIPON. CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF PET FOOD PROCESSING LINE #3: RE-ESTABLISH VOC AND PM10 EMISSION LIMITS AND PROCESSING RATES

CONDITIONS

- This Authority to Construct (ATC) permit cancels and replaces the ATC N-8234-6-0. [District Rule 2201] 1.
- 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 (or equal) high volume cyclone with a static sock. The owner or operator shall install, maintain, and operate Uniquir's, 6kW, 6 plasma cylinders, cold plasma injection system to abate odors in laden air stream from the wet cyclone (Horizon HT-68) prior to being discharged into the atmosphere. [District Rules 2201 and 4102]
- Dryer System: The system consists of EXTRU-TECH 1053-2P-AF11, 10 MMBtu/hr (total) direct-fired natural gas fired dryer with five drying sections, each section equipped with an ECLIPSE WINNOX WX0200 burner rated with a maximum heat input rate of 2.0 MMBtu/hr. The dryer exhaust is vented to a MAC HE60 (or equal) high efficiency cyclone. The owner or operator shall install, maintain, and operate Uniquir's, 15kW, 15 plasma cylinders, cold plasma injection system to abate odors in laden air stream from the dryer cyclone (MAC HE60) prior to being discharged into the atmosphere. [District Rules 2201 and 4102]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denia 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.

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- 4. Cooler and Conveying System: The system consists of three cooler sections, all vented to MAC high efficiency cyclone, a discharge conveyor transfer dried kibbles into a hopper. The material from the hopper is pneumatically conveyed to an enclosed shaker screener. The owner or operator shall install, maintain, and operate Uniquir's, 9 kW, 9 plasma cylinders, cold plasma injection system to abate odors in laden air stream from the dryer cooler cyclone (MAC) prior to being discharged into the atmosphere. [District Rules 2201 and 4102]
- 5. 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 vent these fines to a HORIZON SYSTEMS 285 WRDL8 (or equal) baghouse. This baghouse is vented indoors. [District Rule 2201]
- 6. 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 conveyed to the totes in the basement. The surge bin shall be vented to a HORIZON SYSTEMS MODEL 21VFTC6 (or equal) cartridge dust collector system. Each tote shall have tight-fitting top lid with a static sock filter. [District Rule 2201]
- 7. 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 filter receiver system with a static sock. [District Rule 2201]
- 8. Vertical Cooler and Conveying System: A vertical cooler vented to a MAC HE52 (or equal) high efficiency cyclone. The dried material falls on a vibratory pan on sliding rails. The material (accepts) from 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 HORIZON SYSTEMS MODEL 21VFTC6 (or equal) cartridge dust collector system. The fines (rejects) from MAC HE52 (or equal) cyclone discharge and vibratory pan are conveyed to the totes in the basement. Each tote shall have tight-fitting top lid with a static sock filter. The owner or operator shall install, maintain, and operate Uniquir's, 3 kW, 3 plasma cylinders, cold plasma injection system to abate odors in laden air stream from the vertical cooler cyclone (MAC HE52) prior to being discharged into the atmosphere. [District Rules 2201 and 4102]
- 9. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 10. Particulate matter, at exhaust of each dust collector system (baghouse, cartridge dust collector, cyclone etc.), shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
- 11. 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]
- 12. 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]
- 13. 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]
- 14. PM10 emissions from the operations covered under this permit shall not exceed 0.0612 pounds per ton of finished material produced. [District Rule 2201]
- 15. VOC emissions from the operations covered under this permit shall not exceed 0.037 pounds per ton of finished material produced. [District Rule 2201]
- 16. No more than 36 tons of ground meat shall be injected into the steam-conditioner in any one day. [District Rule 2201]
- 17. The amount of finished material produced under this line shall not exceed 780 tons in any one day. [District Rule 2201]
- 18. The total material processed through all pet food manufacturing lines (N-8234-4, '-5 and '-6) shall not exceed 780 tons in any one day. [District Rule 2201]
- 19. The dryer shall only be fired on PUC-regulated natural gas. [District Rule 2201]
- 20. 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]

- 21. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
- 22. 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]
- 23. 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]
- 24. 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]
- 25. Source testing to determine NOx and CO emissions from the dryer (at the exhaust stack of the MAC HE60 cyclone by obtaining samples downstream of the plasma injection system) shall be conducted within 60 days of startup under this permit, and at least once every 24 months thereafter. [District Rules 2201 and 4309]
- 26. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309]
- 27. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309]
- 28. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309]
- 29. All 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]
- 30. Stack gas velocity or volumetric flow rate shall be determined using EPA Methods 2, 2A, or 2D, [District Rule 2201]
- 31. Source testing to determine total VOC emissions (lb-VOC/ton of finished material produced) shall be conducted within 60 days of startup under this permit. [District Rules 2201 and 4102]
- 32. Total VOC emissions (Ib-VOC/ton of finished material produced) shall include VOC emissions from the following release points by collecting samples downstream of the cold plasma injection system serving: (1) Hot kibble conveying cyclone (HT-68), (2) dryer cyclone MAC HE60, (3) dryer cooler MAC cyclone, and (4) vertical cooler cyclone MAC HE-52. [District Rule 2201]
- 33. A presurvey must be done prior to source testing to determine VOC compound analytes present in the effluent stream downstream of each cold plasma injection system 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]
- 34. Source testing to determine odor control efficiency of each cold plasma injection system shall be conducted within 60 days of startup under this permit. [District Rule 4102]
- 35. Odor control efficiency of each plasma injection system shall be determined at each of the following release points by collecting samples upstream as well as downstream of the plasma injection system serving: (1) Hot kibble conveying cyclone (HT-68), (2) dryer cyclone MAC HE60, (3) dryer cooler MAC cyclone, and (4) vertical cooler cyclone MAC HE-52. [District Rule 4102]

- 36. Odor threshold value to be used to determine the odor control efficiency of each cold plasma injection system shall be determined using ASTM International E679-04, Standard Practice for Determination of Odor and Taste Thresholds by a Forced-Choice Ascending Concentration Series Method of Limits, or other District approved alternative method. [District Rule 4102]
- 37. A sellable pet food product, containing at least 3% (by weight) of ground meat, shall be produced during VOC source testing and odor control efficiency testing. [District Rules 2201 and 4102]
- 38. The District may require VOC source testing and odor panel testing at any time after the initial test should conditions at the facility or the surrounding area warrant such testing. [District Rules 2201 and 4201]
- 39. The amount of ground meat injected in the steam-conditioner, finished product produced, and all other necessary parameters (exhaust flow rate, temperature, pressure, etc.), shall be recorded during VOC source testing and odor panel testing. [District Rules 2201 and 4102]
- 40. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
- 41. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]
- 42. If either the NOx or CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been 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]
- 43. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309]
- 44. 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]
- 45. Within 7 days of initial startup, the owner or operator shall identify and establish key operating parameters that will be continuously monitored and recorded for the optimum operation of each cold plasma injection system. [District Rules 2201 and 4102]
- 46. Within 15 days of initial startup, the owner or operator shall continuously measure and record at least every 15-minute the key operating parameters identified under above condition for each plasma injection system. The recorded parameters shall be averaged over a 60-minute block and compared with the established value for key operating parameter. Upon detecting any excursion, the permittee shall investigate the excursion and take corrective action to minimize odorous emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rules 2201 and 4102]
- 47. The owner or operator shall maintain records of the date, the amount of finished produced under this line, and the total amount of finished product produced by all three manufacturing lines (N-8234-4, '-5 and '-6). [District Rule 2201]

48. 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]