



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

FEB 12 2013

Mr. Daniel Lee
Paramount Farms, Inc.
13646 Highway 33
Lost Hills, CA 93249-9719

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-377
Project # S-1122706**

Dear Mr. Lee:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. The applicant is requesting that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. This modification is for the addition of a nut roaster in the pistachio flavoring and drying operation.

After addressing any EPA comments made during the 45-day comment period, the Authority to Construct will be issued to the facility with a Certificate of Conformity. Prior to operating with modifications authorized by the Authority to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

Enclosures

c: Robert Gilles, Permit Services

Seyed 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
www.valleyair.org

Southern Region

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



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

FEB 12 2013

Gerardo C. Rios, Chief
Permits Office
Air Division
U.S. EPA - Region IX
75 Hawthorne St.
San Francisco, CA 94105

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-377
Project # S-1122706**

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authority to Construct for Paramount Farms, Inc. near Lost Hills, which has been issued a Title V permit. Paramount Farms, Inc. is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. This modification is for the addition of a nut roaster in the pistachio flavoring and drying operation.

Enclosed is the engineering evaluation of this application with a copy of the current Title V permit and proposed Authority to Construct # S-377-50-1 with Certificate of Conformity. After demonstrating compliance with the Authority to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

Enclosures

c: Robert Gilles, Permit Services

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San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

FEB 12 2013

Mike Tollstrup, Chief
Project Assessment Branch
Air Resources Board
P O Box 2815
Sacramento, CA 95812-2815

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-377
Project # S-1122706**

Dear Mr. Tollstrup:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. The applicant is requesting that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. This modification is for the addition of a nut roaster in the pistachio flavoring and drying operation.

Enclosed is the engineering evaluation of this application with a copy of the current Title V permit and proposed Authority to Construct # S-377-50-1 with Certificate of Conformity. After demonstrating compliance with the Authority to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 30-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

Enclosures

c: Robert Gilles, Permit Services

Seyed Sadredin

Executive Director/Air Pollution Control Officer

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**NOTICE OF PRELIMINARY DECISION
FOR THE ISSUANCE OF AUTHORITY TO CONSTRUCT AND
THE PROPOSED SIGNIFICANT MODIFICATION OF FEDERALLY
MANDATED OPERATING PERMIT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed significant modification of Paramount Farms, Inc. for its pistachio nut flavoring and drying operation near Lost Hills, California. This modification is for the addition of a nut roaster in the pistachio flavoring and drying operation.

The District's analysis of the legal and factual basis for this proposed action, project #S-1122706, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. This will be the public's only opportunity to comment on the specific conditions of the modification. If requested by the public, the District will hold a public hearing regarding issuance of this modification. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed initial permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CA 93726-0244.

San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Modification to Pistachio Nut Flavoring and Drying Operation

Facility Name:	Paramount Farms, Inc.	Date:	January 29, 2013
Mailing Address:	13646 Highway 33 Lost Hills, CA 93249-9719	Engineer:	Robert Gilles
		Lead Engineer:	Sheraz Gill
Contact Person:	Daniel Lee	Doug McCormick (Consultant)	
Telephone:	661-797-6500	661-282-2200	
Fax:	661-797-6542		
E-Mail:	dlee@paramountfarms.com	dwmccorm@insenv.com	
Application #:	S-377-50-1		
Project #:	S-1122706		
Deemed Complete:	September 11, 2012		

I. Proposal

Paramount Farms, Inc. (PFI) is requesting an Authority to Construct (ATC) permit to install a 6 MMBtu/hr, natural gas-fired, rotary nut dryer/roaster with a high-efficiency cyclone, a wet scrubber and an induced draft fan in its pistachio nut flavoring and drying operation. The applicant has proposed to install the new roaster in this operation with no increases to the daily or annual heat input limits that are currently included on ATC S-377-50-0.

The applicant has stated that construction of the operation authorized by ATC S-377-50-0 has commenced and the changes will be implemented prior to the installation of the new 6 MMBtu/hr roaster proposed in this project. Therefore, ATC S-377-50-0 will serve as the base document for this project. The following condition will be included on the ATC.

- *Authority to Construct (ATC) S-377-50-0 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Y*

Paramount Farms, Inc. received their Title V Permit on August 31, 2001. This modification can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. PFI must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)

Rule 4002 National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101 Visible Emissions (2/17/05)
Rule 4102 Nuisance (12/17/92)
Rule 4201 Particulate Matter Concentration (12/17/92)
Rule 4202 Particulate Matter Emission Rate (12/17/92)
Rule 4301 Fuel Burning Equipment (12/17/92)
Rule 4309 Dryers, Dehydrators, and Ovens (12/15/05)
Rule 4801 Sulfur Compounds (12/17/92)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The site is located at 13646 Highway 33 near Lost Hills, CA. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

Clean processed pistachios are received from the storage silos and routed through sizing, grading, and flavoring lines. The food grade product is then placed in packaging for delivery to end users. Aspirators associated with the packaging equipment remove unwanted pieces of nut and skins from the product lines and route it to baghouses for collection to maintain the food grade quality of the product.

Once the pistachios have been cleaned and sorted they are routed to the flavoring and dehydration equipment and then to the packaging lines. Due to food safety/sanitation requirements the processed pistachios must be isolated from the raw pistachios being handled elsewhere in the facility. Therefore, the packaging equipment is isolated from the flavoring equipment which is isolated from the raw product and any sanitation equipment is isolated from the processing equipment.

V. Equipment Listing

Pre-Project Equipment Description:

S-377-50-0: 32.0 MMBTU/HR GAS-FIRED PISTACHIO NUT FLAVORING AND DRYING OPERATION CONSISTING OF BIN DUMPERS, SURGE HOPPERS, BUCKET ELEVATORS, CONVEYORS, 8 MMBTU/HR ROASTER (CONSISTING OF TWO 4 MMBTU/HR BURNERS) AND HIGH-EFFICIENCY CYCLONES SERVING THE EXHAUST STACKS, AND FOUR 6 MMBTU/HR ROTARY ROASTERS EACH EQUIPPED WITH A HIGH-EFFICIENCY CYCLONE, ANDERSON 2000 WET SCRUBBER, AND INDUCED DRAFT FAN

Proposed Modification:

Install a new 6 MMBtu/hr rotary pistachio roaster with a high-efficiency cyclone, Anderson 2000 wet scrubber and induced draft fan in permit unit '-50. The new operation will consist of one 8 MMBtu/hr roaster served by a high-efficiency cyclone and five 6 MMBtu/hr rotary roasters, each served by a cyclone, wet scrubber, and induced draft fan.

S-377-50-1: MODIFICATION OF 32.0 MMBTU/HR GAS-FIRED PISTACHIO NUT FLAVORING AND DRYING OPERATION CONSISTING OF BIN DUMPERS, SURGE HOPPERS, BUCKET ELEVATORS, CONVEYORS, 8 MMBTU/HR ROASTER (CONSISTING OF TWO 4 MMBTU/HR BURNERS) AND HIGH-EFFICIENCY CYCLONES SERVING THE EXHAUST STACKS, AND FOUR 6 MMBTU/HR ROTARY ROASTERS EACH EQUIPPED WITH A HIGH-EFFICIENCY CYCLONE, ANDERSON 2000 WET SCRUBBER, AND INDUCED DRAFT FAN: INSTALL AN ADDITIONAL 6 MMBTU/HR ROTARY ROASTER WITH A HIGH-EFFICIENCY CYCLONE, ANDERSON 2000 WET SCRUBBER, AND INDUCED DRAFT FAN

Post Project Equipment Description:

S-377-50-1: 38.0 MMBTU/HR GAS-FIRED PISTACHIO NUT FLAVORING AND DRYING OPERATION CONSISTING OF BIN DUMPERS, SURGE HOPPERS, BUCKET ELEVATORS, CONVEYORS, 8 MMBTU/HR ROASTER (CONSISTING OF TWO 4 MMBTU/HR BURNERS) WITH HIGH-EFFICIENCY CYCLONES SERVING THE EXHAUST STACKS, AND FIVE 6 MMBTU/HR ROTARY ROASTERS EACH EQUIPPED WITH A HIGH-EFFICIENCY CYCLONE, ANDERSON 2000 WET SCRUBBER, AND AN INDUCED DRAFT FAN

VI. Emission Control Technology Evaluation

The pollutants of concern are the products of combustion emitted from the natural gas-fired dryers and roasters – NO_x, CO, VOC, PM₁₀ and SO_x.

The combustion equipment is fired on commercial natural gas. The small burners used in these units are thermostatically controlled to maintain drying chamber temperature usually in the 170°F to 230°F range. This relatively cool chamber temperature is achieved with a lower burner temperature, which inherently produces less NO_x than other types of dryers. Paramount Farms has source tested pistachio dryers in the past and has established that pistachio dryers emit NO_x at 0.0832 lb-NO_x/MMBtu (See BACT Guideline 1.6.8 in Appendix F). The applicant is not proposing any additional control equipment.

Aspirators, cyclones, and fabric collectors used in conjunction with the processing equipment in this project are designed to remove unwanted pieces of nut, skin, etc. that make it through the hulling and drying process. The filters do not function as an air pollution control device but as a vector control device to eliminate food sources for rats and insects.

Wet scrubbers are used to prevent deposition of salt water vapor on adjacent buildings and equipment to prevent corrosion problems and associated food contamination issues.

VII. General Calculations

A. Assumptions

- The facility and all permitted equipment is designed to operate 24 hours/day, 365 days/yr (per Applicant);
- The proposed dryer will be fired exclusively on PUC quality natural gas (per applicant);
- Natural gas HHV = 1,000 Btu/scf (APR 1720);
- Natural gas F-Factor = 8,578 dscf/MMBtu (corrected to 60 °F);
- Natural gas sulfur content = 1 grain per 100 standard cubic feet (APR 1720);
- Pre project fuel use is limited to 1.83 MMscf/day and 165 MMscf/yr (ATC S-377-50-0); and
- Post project fuel use is limited to 1.83 MMscf/day and 165 MMscf/yr (per applicant)

B. Emission Factors (EF)

1. Pre-Project Emission Factors (EF1)

The project emission factors presented in the table below are from ATC S-377-50-0.

EF1 – Combustion Emissions		
Pollutant	lb/MMscf	Source
NO _x	83.2	ATC S-50-0
SO _x	2.85	ATC S-50-0
PM ₁₀	2.8	ATC S-50-0
CO	21.0	ATC S-50-0
VOC	3.8	ATC S-50-0
EF1 – Non-Combustion Emissions		
Pollutant	lb/hr	Source
Cyclone PM ₁₀ (8 MMBtu/hr Roaster)	0.01	ATC S-50-0
Scrubber PM ₁₀ (each 6 MMBtu/hr Roasters)	0.04	Per Applicant ¹

2. Post-Project Emission Factors (EF2)

With this project, the applicant has proposed no changes to the emission factors for this operation; therefore, EF2 = EF1 for combustion and non-combustion emissions. The following table summarizes EF2 for each criteria pollutant.

¹ As shown in Appendix E of the application, the applicant states that the PM₁₀ emissions from each wet scrubber serving each 6 MMBtu/hr roaster are 0.04 lb /hr. This value is consistent with the emission rate authorized by ATC S-377-50-0 (i.e., 0.16 lb/hr + 4 roasters = 0.04 lb/hr for each scrubber serving each 6 MMBtu/hr roaster).

EF2 – Combustion Emissions		
Pollutant	lb/MMscf	Source
NO _x	83.2	ATC '-50-0
SO _x	2.85	ATC '-50-0
PM ₁₀	2.8	ATC '-50-0
CO	21.0	ATC '-50-0
VOC	3.8	ATC '-50-0
EF2 – Non-Combustion Emissions		
Pollutant	lb/hr	Source
Cyclone PM ₁₀ (8 MMBtu/hr Roaster)	0.01	ATC '-50-0
Scrubber PM ₁₀ (each 6 MMBtu/hr Roasters)	0.04	Per Applicant

C. Calculations

1. Pre-Project Potential to Emit (PE1)

The maximum annual fuel usage for permit unit S-377-50 is calculated as follows assuming is full time operation.

$$\begin{aligned}
 \text{Maximum Annual Fuel Use} &= \text{Rated Heat Input, MMBtu/hr} \times 8,760 \text{ hr/year} \\
 &= 32.0 \text{ MMBtu/hr} \times 8,760 \text{ hr/yr} \\
 &= 280,320 \text{ MMBtu/yr} \div 1,000 \text{ MMBtu/MMscf} \\
 &= 280.32 \text{ MMscf/yr} > 165.0 \text{ MMscf/yr}
 \end{aligned}$$

As calculated above, the maximum annual fuel use for permit unit '-50 is greater than the fuel use limit in the current ATC. Therefore, the annual fuel use limit from ATC S-377-50-1 will be used to calculate annual PE1. Daily and annual PE1 are calculated using the following equations.

$$\begin{aligned}
 \text{Daily Combustion PE1} &= \text{EF1, lb/MMscf} \times \text{MMscf/day} \\
 \text{Annual Combustion PE1} &= \text{EF1, lb/MMscf} \times \text{MMscf/year} \\
 \\
 \text{Daily Non-Combustion PE1} &= [(\text{EF1}_{\text{Scrubber}}, \text{ lb/hr} \times \# \text{ Scrubbers}) + (\text{EF1}_{\text{Cyclone}} \times \# \\
 &\text{Cyclones})] \times 24 \text{ hr/day} \\
 \text{Annual Non-Combustion PE1} &= [(\text{EF1}_{\text{Scrubber}}, \text{ lb/hr} \times \# \text{ Scrubbers}) + (\text{EF1}_{\text{Cyclone}} \times \# \\
 &\text{Cyclones})] \times 8,760 \text{ hr/year}
 \end{aligned}$$

Sample PE1 calculations are provided below for PM₁₀.

Combustion PM₁₀

$$\begin{aligned}
 \text{Daily PE1} &= 2.8 \text{ lb-PM}_{10}/\text{MMscf} \times 1.83 \text{ MMscf/day} \\
 &= 5.1 \text{ lb-PM}_{10}/\text{day} \\
 \\
 \text{Annual PE1} &= 2.8 \text{ lb-PM}_{10}/\text{MMscf} \times 165.0 \text{ MMscf/year} \\
 &= 462 \text{ lb-PM}_{10}/\text{year}
 \end{aligned}$$

Non-Combustion PM₁₀

Daily PE1 = [(0.04 lb/hr x 4 scrubbers) + (0.01 lb/hr x 1 cyclone)] x 24 hr/day
= 4.1 lb-PM₁₀/day

Annual PE1 = [(0.04 lb/hr x 4 scrubbers) + (0.01 lb/hr x 1 cyclone)] x 8,760 hr/year
= 1,489 lb-PM₁₀/yr

Daily and annual PE1 for each pollutant are presented in the following tables.

Pre Project Potential to Emit [PE1]					
Combustion Emissions					
	NO _x	SO _x	PM ₁₀	CO	VOC
Daily (lb/day)	152.3	5.2	5.1	38.4	7.0
Annual (lb/year)	13,728	470	462	3,465	627
Non-Combustion Emissions					
	NO _x	SO _x	PM ₁₀	CO	VOC
Daily (lb/day)	0	0	4.1	0	0
Annual (lb/year)	0	0	1,489	0	0

Total Daily and Annual PE1					
	NO _x	SO _x	PM ₁₀	CO	VOC
Daily PE2 (lb/day)	152.3	5.2	9.2	38.4	7.0
Annual PE2 (lb/year)	13,728	470	1,951	3,465	627

2. Post Project Potential to Emit (PE2)

With this project, the applicant has proposed to install an additional 6 MMBtu/hr rotary nut roaster in permit unit S-377-50. Maximum daily and annual PE2 for the proposed new roaster are calculated below.

Daily combustion PE2 = EF₂, lb/MMscf x Heat Input, MMscf/hr x 24 hr/day
Annual combustion PE2 = EF₂, lb/MMscf x Heat Input, MMscf/hr x 8,760 hr/yr

Daily Non-Combustion PE2 = EF₂_{Scrubber}, lb/hr x # Scrubbers x 24 hr/day
Annual Non-Combustion PE2 = EF₂_{Scrubber}, lb/hr x # Scrubbers x 8,760 hr/year

Heat Input Rating = 6 MMBtu/hr + 1,000 MMBtu/MMscf
= 0.006 MMscf/hr

NO_x

Daily PE2 = 83.2 lb-NO_x/MMscf x 0.006 MMscf/hr x 24 hr/day
= 12.0 lb-NO_x/day

Annual PE2 = 83.2 lb/MMscf x 0.006 MMscf/hr x 8,760 hr/yr
= 4,373 lb-NO_x/yr

SOx

Daily PE2 = 2.85 lb/MMscf x 0.006 MMscf/hr x 24 hr/day
= 0.4 lb-SOx/day

Annual PE2 = 2.85 lb/MMscf x 0.006 MMscf/hr x 8,760 hr/yr
= 150 lb-SOx/yr

PM₁₀ - Combustion

Daily PE2 = 2.8 lb/MMscf x 0.006 MMscf/hr x 24 hr/day
= 0.4 lb-PM₁₀/day

Annual PE2 = 2.8 lb/MMscf x 0.006 MMscf/hr x 8,760 hr/yr
= 147 lb-PM₁₀/yr

PM₁₀ – Non-Combustion

Daily PE2 = (0.04 lb/hr x 1 scrubber) x 24 hr/day
= 1.0 lb-PM₁₀/day

Annual PE2 = (0.04 lb/hr x 1 scrubber) x 8,760 hr/year
= 350 lb-PM₁₀/yr

CO

Daily PE2 = 21.0 lb/MMscf x 0.006 MMscf/hr x 24 hr/day
= 3.0 lb-CO/day

Annual PE2 = 21.0 lb/MMscf x 0.006 MMscf/hr x 8,760 hr/yr
= 1,104 lb-CO/yr

VOC

Daily PE2 = 3.8 lb/MMscf x 0.006 MMscf/hr x 24 hr/day
= 0.5 lb-VOC/day

Annual PE2 = 3.8 lb/MMscf x 0.006 MMscf/hr x 8,760 hr/yr
= 200 lb-VOC/yr

Maximum Daily and Annual PE2 – Proposed Roaster					
	NOx	SOx	PM ₁₀	CO	VOC
Daily PE2 (lb/day)	12.0	0.4	0.4 + 1.0 = 1.4	3.0	0.5
Annual PE2 (lb/year)	4,373	150	147 + 350 = 497	1,104	200

Since the applicant has proposed to not increase the daily and annual heat input limits, PE2 = PE1 for combustion emissions. With the installation of the new 6 MMBtu/hr roaster, the only increase in PE will be in non-combustion PM₁₀. Daily and annual PE2 for ATC S-377-50-1 is summarized in the table below.

Post Project Potential to Emit [PE2]					
Combustion Emissions					
	NO _x	SO _x	PM ₁₀	CO	VOC
Daily (lb/day)	152.3	5.2	5.1	38.4	7.0
Annual (lb/year)	13,728	470	462	3,465	627
Non-Combustion Emissions					
	NO _x	SO _x	PM ₁₀	CO	VOC
Daily (lb/day)	0	0	5.0	0	0
Annual (lb/year)	0	0	1,840	0	0

Total Daily and Annual PE2					
	NO _x	SO _x	PM ₁₀	CO	VOC
Daily PE2 (lb/day)	152.3	5.2	10.1	38.4	7.0
Annual PE2 (lb/year)	13,728	470	2,302	3,465	627

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

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

SSPE1 calculations are provided in Appendix D of this evaluation and summarized in the following table.

Pre-Project Stationary Source Potential to Emit [SSPE1]					
(lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
Pre-Project SSPE Subtotal (SSPE1)	69,794	2,879	14,723	32,223	25,085
ATC S-377-50-0	13,728	470	1,951	3,465	627
Pre-Project SSPE (SSPE1)	83,522	3,349	16,674	35,688	25,712

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

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

With this project the applicant has proposed to install an additional 6 MMBtu/hr roaster in permit unit S-377-50; however, since the applicant has proposed no changes to the daily and annual fuel usage limits for this permit unit, the only increase in emissions will be non-combustion PM₁₀. SSPE2 is calculated in the table below using the PE2 values for ATC ' -50-1 from Section VII.C.2 of this evaluation.

Post Project Stationary Source Potential to Emit [SSPE2] (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
Pre-Project SSPE Subtotal (SSPE1)	69,794	2,879	14,723	32,223	25,085
S-377-50-1	13,728	470	2,302	3,465	627
Post Project SSPE (SSPE2)	83,522	3,349	17,025	35,688	25,712

5. Major Source Determination

Rule 2201 Major Source Determination

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

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

Major Source Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
Facility emissions – pre-project	83,522	3,349	16,674	35,688	25,712
Facility emissions – post project	83,522	3,349	17,025	35,688	25,712
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	Yes	No	No	No	Yes

As seen in the table above, the facility is an existing Major Source for NO_x and VOC and is not becoming a Major Source for any other pollutant as a result of this project.

Rule 2410 Major Source Determination

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore, the following PSD Major Source thresholds are applicable.

PSD Major Source Determination (tons/year)							
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀	CO ₂ e ²
Estimated Facility PE before Project Increase	41.8	12.9	1.7	17.8	8.3	8.3	10,759
PSD Major Source Thresholds	250	250	250	250	250	250	100,000
PSD Major Source? (Y/N)	N	N	N	N	N	N	N

As shown above, the facility is not an existing major source for PSD for any one pollutant. Therefore the facility is not an existing major source for PSD.

6. Baseline Emissions (BE)

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

Pursuant to District Rule 2201, BE = PE1 for:

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

otherwise,

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

As shown in Section VII.C.5 above, the facility is not a Major Source for SO_x, PM₁₀, or CO; therefore, Baseline Emissions (BE) are equal to the Pre-Project Potential to Emit (PE1) for these pollutants.

Since the proposed 6 MMBtu/hr rotary roaster is a new emissions unit, BE = PE1 = 0.

7. SB 288 Major Modification

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

Since this facility is a major source for NO_x and VOC, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

² See Appendix E for CO₂e calculation.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NO _x	13,728	50,000	No
VOC	627	50,000	No

Since none of the SB 288 Major Modification Thresholds are surpassed with this project, this project does not constitute an SB 288 Major Modification.

8. Federal Major Modification

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

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. Emission decreases may not cancel out the increases for this determination.

Step 1

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project. The project's combined total emission increases were calculated in Section VII.C.2.

PE2 – Proposed New Roaster		
	NO _x (lb/year)	VOC (lb/year)
6 MMBtu/hr Roaster	4,373	200

For existing emissions units, the increase in emissions is calculated as follows.

$$\text{Emission Increase} = \text{PAE} - \text{BAE} - \text{UBC}$$

Where: PAE = Projected Actual Emissions, and
BAE = Baseline Actual Emissions
UBC = Unused baseline capacity

If there is no increase in design capacity or potential to emit, the PAE is equal to the annual emission rate at which the unit is projected to emit in any one year, selected by the operator, within 5 years after the unit resumes normal operation (10 years for existing units with an increase in design capacity or potential to emit). If detailed PAE are not provided, the PAE is equal to the PE2 for each permit unit.

For permit unit '-50, the projected actual emissions are assumed to be equal to the post-project potential to emit (PE2).

The BAE is calculated based on historical emissions and operating records for any 24 month period, selected by the operator, within the previous 10 year period (5 years for electric utility steam generating units). The BAE must be adjusted to exclude any non-

compliant operation emissions and emissions that are no longer allowed due to lower applicable emission limits that were in effect when this application was deemed complete.

UBC: Since this project does not result in an increase in design capacity or potential to emit for the existing emissions units, and it does not impact the ability of the existing emission units to operate at a higher utilization rate, the UBC is the portion of PAE that these emissions units could have accommodated during the baseline period. As indicated by the calculations in Section VII.C, these units could have operated at their full Potential to Emit during the Baseline Period and therefore $BAE + UBC = PE1$. Since $PE2 = PE1$ for the existing emissions units:

Emissions Increase = 0 for all pollutants.

The project's combined total emission increases are compared to the Federal Major Modification Thresholds in the following table.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
NO _x *	4,373	0	Yes
VOC*	200	0	Yes

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

Since the installation of the new emissions unit results in an increase in NO_x and VOC emissions, this project constitutes a Federal Major Modification, and no further analysis is required.

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

Rule 2410 applies to pollutants for which the District is in attainment or for unclassified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO₂ (as a primary pollutant)
- SO₂ (as a primary pollutant)
- CO
- PM
- PM₁₀
- Greenhouse gases (GHG): CO₂, N₂O, CH₄, HFCs, PFCs, and SF₆

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not (See Section VII.C.5 of this document).

In the case the facility is an existing PSD Major Source, the second step of the PSD evaluation is to determine if the project results in a PSD significant increase.

In the case the facility is NOT an existing PSD Major Source but is an existing source, the second step of the PSD evaluation is to determine if the project, by itself, would be a PSD major source.

In the case the facility is new source, the second step of the PSD evaluation is to determine if this new facility will become a new PSD major Source as a result of the project and if so, to determine which pollutant will result in a PSD significant increase.

I. Potential to Emit for New or Modified Emission Units vs. PSD Major Source Thresholds

As a screening tool, the project potential to emit from all new and modified units is compared to the PSD major source threshold, and if total project potential to emit from all new and modified units is below this threshold, no further analysis will be needed.

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore, the following PSD Major Source thresholds are applicable.

PSD Major Source Determination: Potential to Emit (tons/year)							
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀	CO ₂ e ³
Total PE from New and Modified Units	2.2	0.1	0.1	0.6	0.2	0.2	3,074
PSD Major Source threshold	250	250	250	250	250	250	100,000
New PSD Major Source?	N	N	N	N	N	N	N

As shown in the table above, the project potential to emit, by itself, does not exceed any of the PSD major source thresholds. Therefore, Rule 2410 is not applicable and no further discussion is required.

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions⁴:

³ See Appendix E for CO₂e calculation.

⁴ Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

- a. Any new emissions unit with a potential to emit exceeding two pounds per day,
- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in an SB288 Major Modification or a Federal Major Modification, as defined by the rule.

a. New emissions units – PE > 2.0 lb/day

The applicant is proposing to install a new gas-fired dryer with the following maximum daily emissions (the dryer is a part of the fuel SLC for permit unit S-377-50 but has the potential to run 24 hours/day and 365 days/year):

PE (lb/day)					
Pollutant	EF	Heat Input (MMBtu/hr)	Daily Oper. (hrs/day)	Emissions (lb/day)	BACT Triggered?
NO _x	83.2 lb/MMscf	0.006	24	12.0	Yes
SO _x	2.85 lb/MMscf	0.006	24	0.4	No
PM ₁₀ – Combustion	2.8 lb/MMscf	0.006	24	0.4	No
PM ₁₀ – Non-combustion	0.04 lb/hr	---	24	1.0	No
CO	21.0 lb/MMscf	0.006	24	3.0	No
VOC	3.8 lb/MMscf	0.006	24	0.5	No

BACT is triggered for NO_x only since the PE is greater than 2.0 lb/day. BACT is not triggered for CO since the SSPE2 for CO is not greater than 200,000 lb/year, as demonstrated in Section VII.C.5 of this document.

b. Relocation of emissions units – PE > 2.0 lb/day

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

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

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

d. SB 288/Federal Major Modification

As discussed in Section VII.C.8 above, this project constitutes a Federal Major Modification for NO_x and VOC emissions; therefore, BACT is triggered for NO_x and VOC for all emissions units in the project for which there is an emission increase. The new 6 MMBtu/hr dryer is the only unit in this project that results in an emissions increase; therefore, BACT is triggered for NO_x and VOC for the new 6 MMBtu/hr dryer.

2. BACT Guideline

BACT Guideline 1.6.8 applies to pistachio nut dryers (see Appendix F).

3. Top-Down BACT Analysis

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

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

NO_x: Low NO_x burner @ 0.083 lb/MMBtu and natural gas fuel
VOC: Natural gas with LPG as backup fuel

B. Offsets

1. Offset Applicability

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

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

Offset Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
Post Project SSPE (SSPE2)	83,522	3,349	17,025	35,688	25,712
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Offsets Triggered?	Yes	No	No	No	Yes

2. Quantity of Offsets Required

As seen above, the SSPE2 is greater than the offset thresholds for NO_x and VOC emissions only; therefore, offset calculations will be required for this project.

Per Sections 4.7.1 and 4.7.3, the quantity of offsets in pounds per year for NO_x and VOC is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = $(\Sigma[PE2 - BE] + ICCE) \times DOR$, for all new or modified emissions units in the project,

Where,

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

BE = Baseline Emissions, (lb/year)

ICCE = Increase in Cargo Carrier Emissions, (lb/year)

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = Pre-project Potential to Emit for:

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

otherwise,

BE = Historic Actual Emissions (HAE)

As calculated in Section VII.C.6 above, the Baseline Emissions (BE) from the proposed new unit are equal to the Pre-Project Potential to Emit (PE1) since the proposed unit is a new emissions unit.

Also, there are no increases in cargo carrier emissions (ICCE = 0) and all units and emissions associated with this project are occurring at the same stationary source (DOR = 0); therefore offsets can be determined as follows:

$$\text{Offsets Required (lb/year)} = \Sigma(\text{PE2} - \text{BE})$$

S-377-50

$$\begin{aligned} \text{NOx:} &= \text{PE2} - \text{BE} = \text{PE2} - \text{PE1} \\ &= 13,728 \text{ lb-NOx/year} - 13,728 \text{ lb-NOx/year} \\ &= 0 \text{ lb-NOx/year} \end{aligned}$$

$$\begin{aligned} \text{VOC:} &= \text{PE2} - \text{BE} = \text{PE2} - \text{PE1} \\ &= 627 \text{ lb-VOC/year} - 627 \text{ lb-VOC/year} \\ &= 0 \text{ lb-VOC/year} \end{aligned}$$

As demonstrated above, the amount of offsets required is zero for NOx and VOC emissions for this project.

C. Public Notification

1. Applicability

Public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed, and/or
- d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications

As demonstrated in VII.C.7, this project is a Federal Major Modification; therefore, public noticing for Federal Major Modification purposes is required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. The PE2 for each new dryer is compared to the daily PE Public Notice thresholds in the following table:

PE > 100 lb/day Public Notice Thresholds			
Pollutant	PE2 (lb/day)	Public Notice Threshold	Public Notice Triggered?
NO _x	12.0	100 lb/day	No
SO _x	0.4	100 lb/day	No
PM ₁₀	0.4	100 lb/day	No
CO	3.0	100 lb/day	No
VOC	0.5	100 lb/day	No

Therefore, public noticing for PE > 100 lb/day purposes is not required.

c. Offset Threshold

The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Threshold				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO _x	83,522	83,522	20,000 lb/year	No
SO _x	3,349	3,349	54,750 lb/year	No
PM ₁₀	16,674	17,025	29,200 lb/year	No
CO	35,688	35,688	200,000 lb/year	No
VOC	25,712	25,712	20,000 lb/year	No

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

d. SSIPE > 20,000 lb/year

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

Stationary Source Increase in Permitted Emissions [SSiPE] – Public Notice					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSiPE (lb/year)	SSiPE Public Notice Threshold	Public Notice Required?
NO _x	83,522	83,522	0	20,000 lb/year	No
SO _x	3,349	3,349	0	20,000 lb/year	No
PM ₁₀	17,025	16,674	351	20,000 lb/year	No
CO	35,688	35,688	0	20,000 lb/year	No
VOC	25,712	25,712	0	20,000 lb/year	No

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

2. Public Notice Action

As discussed above, public noticing is required for this project for Federal Major Modification purposes. Public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

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

S-377-50:

- *Non-combustion PM10 emission rate from the 8 MMBtu/hr roaster shall not exceed 0.01 lb/hr. [District Rule 2201] Y*
- *PM10 emission rate from the outlet of each scrubber serving the 6.0 MMBtu/hr rotary roasters shall not exceed 0.04 lb/hr. [District Rule 2201] Y*
- *Daily natural gas consumption shall not exceed 1.83 MMscf/day. [District Rule 2201] Y*
- *Annual natural gas consumption shall not exceed 165.0 MMscf/yr. [District Rule 2201] Y*
- *Emission shall not exceed any of the following limits: PM10: 2.8 lb/MMscf, SO_x as (SO₂): 2.85 lb/MMscf, NO_x (as NO₂): 83.2 lb/MMscf, VOC: 3.8 lb/MMscf, or CO: 21.0 lb/MMscf. [District Rule 2201] Y*
- *Combustion equipment shall be equipped with operational non-resettable, totalizing fuel meters to demonstrate compliance with fuel consumption limits. [District Rule 2201] Y*

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification, and daily emission limit requirements of Rule 2201. The following conditions will appear on the permit to operate:

S-377-50:

- *The permittee shall maintain daily records of the volume of fuel usage for any one day, in MMscf, and the fuel meter identification. [District Rule 2201]*
- *The permittee shall maintain cumulative annual records of the volume of fuel usage for any one calendar year, in MMscf, and the fuel meter identification. [District Rule 2201]*

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis

Section 4.14.1 of this Rule requires that an ambient air quality analysis (AAQA) be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The Technical Services Division of the SJVAPCD conducted the required analysis. Refer to Appendix H of this document for the AAQA summary sheet.

As shown by the AAQA summary sheet and the table below, the proposed equipment will not cause a violation of an air quality standard for NO_x, CO, SO_x, PM_{2.5}, or PM₁₀.

NG Rotary Roaster	1 Hour	3 Hours	8 Hours.	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO _x	Pass	X	X	X	Pass
SO _x	Pass	Pass	X	Pass	Pass
PM _{2.5}	X	X	X	Pass	Pass
PM ₁₀	X	X	X	Pass ⁵	Pass ⁵

As shown, the calculated contribution of these pollutants will not exceed EPA's significance levels. This project is not expected to cause or make worse a violation of an air quality standard.

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Title I Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Sections VIII-Rule 2201-C.1.a and VIII-Rule 2201-C.1.b, this facility is an existing major source and this project does constitute a Title I modification; therefore, this requirement is applicable. PFI's compliance certification is included in Appendix I.

H. Alternate Siting Analysis

The current project occurs at an existing facility. With this project, the applicant proposes to install a new roaster. Since the project will provide heat to be used at the same location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures on a much greater scale, and would therefore result in a much greater impact.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. Section 3.29 defines a significant permit modification as a "permit amendment that does not qualify as a minor permit modification or administrative amendment."

Section 3.20.5 states that a minor permit modification is a permit modification that does not meet the definition of modification as given in Section 111 or Section 112 of the Federal Clean Air Act. Since this project will result in a Federal Major Modification the proposed project is considered to be a modification under the Federal Clean Air Act. As a result, the proposed project constitutes a Significant Modification to the Title V Permit pursuant to Section 3.29.

As discussed in Section I previously, the facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with

⁵ The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

this rule is expected. The facility shall not implement the changes requested until the final permit is issued.

Rule 4001 New Source Performance Standards (NSPS)

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

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

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

Rule 4101 Visible Emissions

Per Section 5.0, no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). All particulate removal equipment handles particles greater than 10 microns and all combustion equipment burns PUC quality natural gas; therefore visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. Also, based on past inspections of the facility continued compliance is expected.

Rule 4102 Nuisance

Section 4.0 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations provided the equipment is well maintained. Therefore, compliance with this rule is expected.

California Health & Safety Code 41700 (Health Risk Assessment)

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

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (Appendix H), the total facility prioritization score including this project was greater than one. Therefore, a health risk assessment was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

HRA Summary		
Emission Unit	Cancer Risk	T-BACT Required
S-377-50-1: 6 MMBtu/hr Dryer	0.0107 per million	No

Discussion of T-BACT

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

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 10 in a million). As outlined by the HRA Summary in Appendix H of this report, the emissions increases for this project was determined to be less than significant.

The following condition will be included on the permit to ensure compliance with the requirements of the HRA.

- *{modified 1898} The exhaust stacks shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok) roof overhang, or any other obstruction. [District Rule 4102] N*

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot. As this equipment is all fired on PUC quality natural gas compliance with this rule is expected. The following condition will appear on the ATC to ensure ongoing compliance:

- *Particulate matter emissions shall not exceed 0.1 gr/dscf in concentration. [District Rule 4201] Y*

Rule 4202 Particulate Matter Emissions Rate

The purpose of this rule is to limit particulate matter emissions by establishing allowable emission rates. The equipment is currently in compliance with this rule and the proposed modification is not expected to affect compliance with this rule. The following condition will be listed on the ATC to ensure ongoing compliance:

- *Particulate matter emissions shall not exceed the hourly rate as calculated in District Rule 4202 using the equation $E=3.59 \times P^{0.62}$ if P is less than or equal to 30 tons per hour, or $E=17.31 \times P^{0.16}$ if P is greater than 30 tons per hour. [District Rule 4202] Y*

Rule 4301 Fuel Burning Equipment

This rule specifies maximum emission rates in lb/hr for SO₂, NO₂, and combustion contaminants (defined as total PM in Rule 1020). This rule also limits combustion contaminants to ≤ 0.1 gr/scf.

This rule is applicable to fuel burning equipment that is defined in §3.1 of the rule as:

- Fuel Burning Equipment: any furnace, boiler, apparatus, stack, and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer.

The dryers listed on permit S-377-50 heat the nuts by direct heat transfer (the products of combustion come into contact with the process material); therefore, this rule is not applicable to this equipment.

Rule 4309 Dryers, Dehydrators, and Ovens

The purpose of this rule is to limit emissions of oxides of nitrogen (NO_x) and carbon monoxide (CO) from dryers, dehydrators, and ovens. This rule applies to any dryer, dehydrator, or oven that is fired on gaseous fuel, liquid fuel, or is fired on gaseous and liquid fuel sequentially, and the total rated heat input for the unit is 5.0 million British thermal units per hour (5.0 MMBtu/hr) or greater.

Each roaster in permit unit S-377-50 is fired on natural gas and is rated at greater than 5.0 MMBtu/hr; however, pursuant to Section 4.1.3 of this rule, smokehouses and roasters are exempt from the requirements of Rule 4309. Therefore, since each unit is a roaster, the equipment in permit unit S-377-50 is not subject to the provisions of this rule. No further discussion is required.

Rule 4801 Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO₂, on a dry basis averaged over 15 consecutive minutes.

The combustion equipment listed on these permits emit sulfur compounds and are limited to fire exclusively on PUC quality natural gas that will ensure compliance with this rule. Therefore, the following condition will be listed on the ATC to ensure compliance:

- *Combustion equipment shall be fired on PUC quality natural gas only. [District Rules 2201 and 4801] Y*

California Health & Safety Code 42301.6 (School Notice)

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

California Environmental Quality Act (CEQA)

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

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

It is determined that no other agency has or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

This project is not expected to result in an increase in throughput, fuel usage, or an actual increase in emissions as a result of the addition of the 6 MMBtu/hr roaster. The additional roaster will be operated at a different stage of the nut preparation process since, per FDA requirements processed pistachios must be isolated from raw pistachios (i.e., an additional roaster is needed so pistachios at different stages are not handled by the same equipment).

The District's engineering evaluation (this document) demonstrates that the project would not result in an increase in project specific greenhouse gas emissions. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

District CEQA Findings

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline §15031 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending successful NSR Public Noticing and EPA noticing periods, issue Authority to Construct S-377-50-1 subject to the permit conditions on the attached draft Authorities to Construct in Appendix B.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-377-50-1	3020-02-H	38.0 MMBtu/hr	\$1,030.00

Appendices

- A: Current ATC
- B: Draft ATC
- C: Process Diagram
- D: SSPE Tabulation
- E: CO₂e Calculation
- F: BACT Guideline
- G: BACT Analysis
- H: HRA/AAQA Summary
- I: Compliance Certification

Appendix A

Current ATC



AUTHORITY TO CONSTRUCT

PERMIT NO: S-377-50-0

ISSUANCE DATE: 10/28/2011

LEGAL OWNER OR OPERATOR: PARAMOUNT FARMS
MAILING ADDRESS: ATTN: DANIEL LEE
13646 HIGHWAY 33
LOST HILLS, CA 93249-9719

LOCATION: 3.5 MILES NORTH OF HWY 46 ON HWY 33
LOST HILLS, CA

EQUIPMENT DESCRIPTION:

32.0 MMBTU/HR GAS-FIRED PISTACHIO NUT FLAVORING AND DRYING OPERATION CONSISTING OF BIN DUMPERS, SURGE HOPPERS, BUCKET ELEVATORS, CONVEYORS, 8 MMBTU/HR ROASTER (CONSISTING OF TWO 4 MMBTU/HR BURNERS) AND HIGH-EFFICIENCY CYCLONES SERVING THE EXHAUST STACKS, AND FOUR 6 MMBTU/HR ROTARY ROASTERS EACH EQUIPPED WITH A HIGH-EFFICIENCY CYCLONE, ANDERSON 2000 WET SCRUBBER, AND INDUCED DRAFT FAN

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct (ATC) shall be implemented concurrently with ATC S-377-47-3. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permit to Operate S-377-20 shall be cancelled upon implementing this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Entrained (non-combustion) PM10 emission rate from the 8 MMBtu/hr roaster shall not exceed 0.01 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S-377-50-0: Oct 28 2011 1:59PM - RICKARDK : Joint Inspection NOT Required

6. PM10 emission rate from the outlets of the scrubbers serving the 6.0 MMBtu/hr rotary roasters shall not exceed 0.16 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Combustion equipment shall be fired on PUC regulated natural gas only. [District Rules 4309 and 4801] Federally Enforceable Through Title V Permit
8. Daily natural gas consumption shall not exceed 1.83 MMscf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Annual natural gas consumption shall not exceed 165.0 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Emission rate per MMscf gas burned shall not exceed any of the following: PM10: 2.8 lb/MMscf, SOx as (SO2): 2.85 lb/MMscf, NOx (as NO2): 83.2 lb/MMscf, VOC: 3.8 lb/MMscf, or CO: 21.0 lb/MMscf. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Combustion equipment shall be equipped with operational non-resettable, totalizing fuel meters to demonstrate compliance with fuel consumption limits. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The permittee shall maintain daily records of the volume of fuel usage for any one day, in MMscf, and the fuel meter identification. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The permittee shall maintain cumulative annual records of the volume of fuel usage for any one calendar year, in MMscf, and the fuel meter identification. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Visible emissions at cyclone serving the 8.0 MMBtu/hr roaster shall be inspected quarterly during operation. If visible emissions are observed to be in excess of 5% opacity, corrective action shall be taken to reduce opacity. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. Particulate matter emissions shall not exceed 0.1 gr/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
16. Materials removed from dust collectors shall be disposed of in a manner preventing re-entrainment into atmosphere, with an opacity not to exceed 20%. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Particulate matter emissions shall not exceed the hourly rate as calculated in District Rule 4202 using the equation $E=3.59 \times P^{0.62}$ if P is less than or equal to 30 tons per hour, or $E=17.31 \times P^{0.16}$ if P is greater than 30 tons per hour. [District Rule 4202] Federally Enforceable Through Title V Permit
18. The dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrator's manufacturer or APCO-approved alternative procedures. [District Rule 4309] Federally Enforceable Through Title V Permit
19. Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rule 4309] Federally Enforceable Through Title V Permit
20. A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 4309] Federally Enforceable Through Title V Permit
21. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 4309] Federally Enforceable Through Title V Permit

Appendix B

Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-377-50-1

LEGAL OWNER OR OPERATOR: PARAMOUNT FARMS
MAILING ADDRESS: ATTN: DANIEL LEE
13646 HIGHWAY 33
LOST HILLS, CA 93249-9719

LOCATION: 3.5 MILES NORTH OF HWY 46 ON HWY 33
LOST HILLS, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 32.0 MMBTU/HR GAS-FIRED PISTACHIO NUT FLAVORING AND DRYING OPERATION CONSISTING OF BIN DUMPERS, SURGE HOPPERS, BUCKET ELEVATORS, CONVEYORS, 8 MMBTU/HR ROASTER (CONSISTING OF TWO 4 MMBTU/HR BURNERS) AND HIGH-EFFICIENCY CYCLONES SERVING THE EXHAUST STACKS, AND FOUR 6 MMBTU/HR ROTARY ROASTERS EACH EQUIPPED WITH A HIGH-EFFICIENCY CYCLONE, ANDERSON 2000 WET SCRUBBER, AND INDUCED DRAFT FAN: INSTALL AN ADDITIONAL 6 MMBTU/HR ROTARY ROASTER WITH A HIGH-EFFICIENCY CYCLONE, ANDERSON 2000 WET SCRUBBER, AND INDUCED DRAFT FAN

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct (ATC) S-377-50-0 shall be implemented prior to or concurrently with this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Combustion equipment shall be fired on PUC quality natural gas only. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
5. Combustion equipment shall be equipped with operational non-resettable, totalizing fuel meters to demonstrate compliance with fuel consumption limits. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director APCO

DAVID WARNER, Director of Permit Services
9-377-50-1: Jan 22 2013 9:57AM - GILLESR : Joint Inspection NOT Required

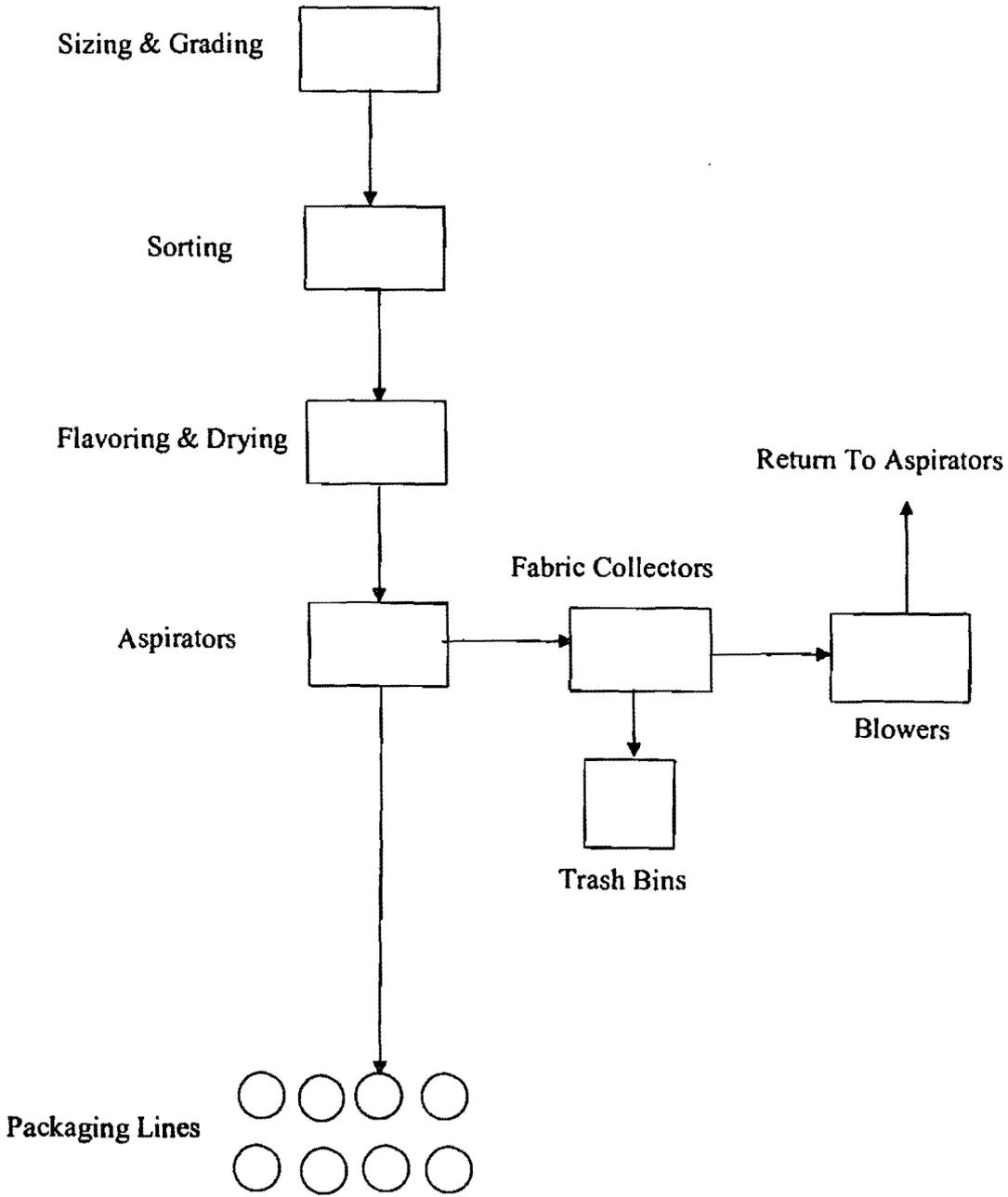
6. The dehydrator shall be operated and maintained in proper operating condition as recommended by the dehydrator's manufacturer or APCO-approved alternative procedures. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Materials removed from dust collectors shall be disposed of in a manner preventing re-entrainment into atmosphere, with an opacity not to exceed 20%. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The exhaust stacks shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
9. Non-combustion PM10 emission rate from the 8 MMBtu/hr roaster shall not exceed 0.01 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. PM10 emission rate from the outlet of each scrubber serving the 6.0 MMBtu/hr rotary roasters shall not exceed 0.04 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Daily natural gas consumption shall not exceed 1.83 MMscf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Annual natural gas consumption shall not exceed 165.0 MMscf/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Emission rate per MMscf gas burned shall not exceed any of the following: PM10: 2.8 lb/MMscf, SOx as (SO2): 2.85 lb/MMscf, NOx (as NO2): 83.2 lb/MMscf, VOC: 3.8 lb/MMscf, or CO: 21.0 lb/MMscf. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Visible emissions at cyclone serving the 8.0 MMBtu/hr roaster shall be inspected quarterly during operation. If visible emissions are observed to be in excess of 5% opacity, corrective action shall be taken to reduce opacity. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. Particulate matter emissions shall not exceed 0.1 gr/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
16. Particulate matter emissions shall not exceed the hourly rate as calculated in District Rule 4202 using the equation $E=3.59 \times P^{0.62}$ if P is less than or equal to 30 tons per hour, or $E=17.31 \times P^{0.16}$ if P is greater than 30 tons per hour. [District Rule 4202] Federally Enforceable Through Title V Permit
17. The permittee shall maintain daily records of the volume of fuel usage for any one day, in MMscf, and the fuel meter identification. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The permittee shall maintain cumulative annual records of the volume of fuel usage for any one calendar year, in MMscf, and the fuel meter identification. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Permittee shall maintain daily operation and maintenance records that demonstrate the dehydrator is operated within the limits of the manufacturer's specification, and maintenance is performed according to the manufacturer's recommendation or APCO-approved alternative procedures. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
20. A copy of the manufacturer's operation specifications and maintenance instruction manual or APCO-approved alternative procedures shall be maintained on-site during normal business hours. [District Rule 1070] Federally Enforceable Through Title V Permit
21. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

DRAFT

Appendix C

Process Diagram

Product Flow Diagram



Appendix D

SSPE Tabulation

Pre Project Stationary Source Potential to Emit (SSPE1) [lb/year]							
Permit Number	Equipment Description	NOx	SOx	PM ₁₀	CO	VOC	Source
S-377-3-25	Pistachio hulling and drying operation #1	25,376	869	1,569	6,405	1,159	S-1123536
S-377-9-6	Propylene oxide fumigation system	0	0	0	0	402	Application
S-377-19-28	Pistachio hulling and drying operation #2	32,448	1,112	5,650	15,501	1,482	Application
S-377-20-21	Pistachio nut finishing operation	0	0	0	0	0	S-1111177
S-377-21-15	Pistachio storage bins	2,080	71	63	525	95	Application
S-377-34-6	21.0 MMBtu/hr boiler	1,558	524	920	6,775	515	Application
S-377-35-4	99.5 bhp natural gas emergency ICE generator	114	0	0	98	2	Application
S-377-37-4	188 bhp Clarke emergency ICE firewater pump	1,800	18	24	604	54	Application
S-377-38-5	182 bhp Cummins emergency ICE firewater pump	608	14	22	308	30	S-1123827
S-377-39-5	Sample drying operation	499	17	30	126	35	Application
S-377-40-9	Almond finishing and packaging operation	1,775	134	332	866	262	Application
S-377-41-3	Aluminum phosphide fumigaion operation	0	0	0	0	0	Application
S-377-42-2	Methyl bromide fumigation chamber	0	0	0	0	14,235	Application
S-377-43-2	Methyl bromide fumigation chamber	0	0	0	0	1,278	Application
S-377-44-2	Methyl bromide fumigation chamber	0	0	0	0	1,278	Application
S-377-45-2	Methyl bromide fumigation chamber	0	0	0	0	1,278	Application
S-377-46-2	Methyl bromide fumigation chamber	0	0	0	0	1,278	Application
S-377-47-3	Artificial pistachio opening operation	3,328	114	112	840	152	S-1111177
S-377-49-3	Paint booth	208	6	392	175	1,550	Application
S-377-50-0	Pistachio nut flavoring and drying operation	13,728	470	1,951	3,465	627	S-1111177
S-377-51-0	Pistachio shelling operation	0	0	5,609	0	0	Application
ATC S-377-53-0	225 bhp John Deere emergency ICE firewater pump (TREU for '-38)	0	0	0	0	0	S-1123515
		SSPE1, lb/year = 83,522	3,349	16,674	35,688	25,712	
		Major Stationary Source Threshold, lb/year = 20,000 140,000 140,000 200,000 20,000					

Appendix E

CO₂e Calculation

Paramount Farms, Inc
ATC S-377-50-1
Project S-1122706
Permits w/ Fuel Burning Equipment

Facility permitted annual fuel usage for GHG calcs
1/16/2013

PTO	MMBtu/hr	MMBtu/yr
3-25	396	0.31
19-28	550.5	0.17
20-21	23.33	0.13
21-15	555	0.03
34-6	21	183,960.00
39-5	3.2	0.01
40-9	8	0.01
47-2	13.4	2/25
	1570.43	183,960.72

Proposed New Roaster

MMBtu/hr	hr/yr	MMBtu/yr
6	8,760	52,560

Internal Combustion Engines:

If stationary spark-ignited (gasoline, LPG, or natural gas) or compression-ignited (diesel) engines are used in your operation, please enter the total horsepower multiplied by the total permitted hours of use per year.

Example: Engine #1: 250 bhp x 8760 hr/yr = 2,190,000 bhp-hr/yr
Engine #2: 300 bhp x 5000 hr/yr = 1,500,000 bhp-hr/yr
Total = 3,590,000 bhp-hr/yr

	Horsepower x Permitted Annual Hours (bhp-hr/yr)	CO2e (ton/yr)
Diesel:	_____	0.00
Natural Gas:	_____	0.00
LPG:	_____	0.00
Gasoline:	_____	0.00

Other Combustion Equipment:

For all other combustion equipment (boilers, dryers, gas turbines, flares, etc.) used in your operation, please enter the permitted total annual fuel usage for each fuel type.

	Permitted Annual Fuel Use (MMBtu/yr)	CO2e (ton/yr)
Natural Gas	183,961	10,759.05
LPG:	_____	0.00
Sub-Bituminous Coal:	_____	0.00
Bituminous Coal:	_____	0.00
Petroleum Coke:	_____	0.00
#2 Fuel Oil:	_____	0.00
Biomass:	_____	0.00
Digester Gas:	_____	0.00
Landfill Gas:	_____	0.00

Results

Total CO2e (ton/yr): 10,759.05

Total CO2e emissions are NOT greater than 100,000 tons/yr. Therefore, this facility is NOT a Major Source for Greenhouse Gases and is NOT subject to Title V permitting for Greenhouse Gas purposes.

Internal Combustion Engines:

If stationary spark-ignited (gasoline, LPG, or natural gas) or compression-ignited (diesel) engines are used in your operation, please enter the total horsepower multiplied by the total permitted hours of use per year.

Example: Engine #1: 250 bhp x 8760 hr/yr = 2,190,000 bhp-hr/yr
Engine #2: 300 bhp x 5000 hr/yr = 1,500,000 bhp-hr/yr
Total = 3,590,000 bhp-hr/yr

	Horsepower x Permitted Annual Hours (bhp-hr/yr)	CO2e (ton/yr)
Diesel:	_____	0.00
Natural Gas:	_____	0.00
LPG:	_____	0.00
Gasoline:	_____	0.00

Other Combustion Equipment:

For all other combustion equipment (boilers, dryers, gas turbines, flares, etc.) used in your operation, please enter the permitted total annual fuel usage for each fuel type.

	Permitted Annual Fuel Use (MMBtu/yr)	CO2e (ton/yr)
Natural Gas	52,560	3,074.00
LPG:	_____	0.00
Sub-Bituminous Coal:	_____	0.00
Bituminous Coal:	_____	0.00
Petroleum Coke:	_____	0.00
#2 Fuel Oil:	_____	0.00
Biomass:	_____	0.00
Digester Gas:	_____	0.00
Landfill Gas:	_____	0.00

Results

Total CO2e (ton/yr): 3,074.00

Total CO2e emissions are NOT greater than 100,000 tons/yr. Therefore, this facility is NOT a Major Source for Greenhouse Gases and is NOT subject to Title V permitting for Greenhouse Gas purposes.

Appendix F

BACT Guideline

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 1.6.8*

Last Update 4/14/1995

Pistachio Nut Dryer

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
CO		Natural gas with LPG as backup fuel	
NOx	Low NOx burner @ 0.083 lb/MMBtu and natural gas fuel		
PM10		Natural gas with LPG as backup fuel	
SOx		PUC quality natural gas with LPG as backup fuel	
VOC		Natural gas with LPG as backup fuel	

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

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

Appendix G

BACT Analysis

BACT Analysis for NO_x

BACT Guideline 1.6.8, 2nd quarter 1995, lists the controls that apply to a pistachio nut dryer.

Step 1 - Identify All Possible Control Technologies

- 1) Low NO_x burner @ 0.083 lb/MMBtu and natural gas fuel – achieved in practice

Step 2 - Eliminate Technologically Infeasible Options

There are no technologically infeasible options to eliminate.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

There is only one option listed; therefore ranking is not necessary.

Step 4 - Cost Effective Analysis

A cost effective analysis must be performed for all control options in the list from step 3 in the order of their ranking to determine the cost effective option with the lowest emissions.

The applicant has proposed the only control from step 3; therefore, a cost effective analysis is not necessary.

Step 5 - Select BACT

BACT for NO_x emissions from this pistachio nut dryer is a low NO_x burner fired on natural gas with an emissions limit of 0.083 lb/MMBtu. The applicant has proposed to install a pistachio nut dryer equipped with a low NO_x burner fired on natural gas with an emissions limit of 0.083 lb/MMBtu; therefore BACT for NO_x emissions is satisfied.

BACT Analysis for VOC

BACT Guideline 1.6.8, 2nd quarter 1995, lists the controls that apply to a pistachio nut dryer.

Step 1 - Identify All Possible Control Technologies

- 1) Natural gas with LPG as backup fuel – technologically feasible

Step 2 - Eliminate Technologically Infeasible Options

There are no technologically infeasible options to eliminate.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

There is only one option listed; therefore ranking is not necessary.

Step 4 - Cost Effective Analysis

A cost effective analysis must be performed for all control options in the list from step 3 in the order of their ranking to determine the cost effective option with the lowest emissions.

The applicant has proposed the only control from step 3; therefore, a cost effective analysis is not necessary.

Step 5 - Select BACT

BACT for VOC emissions from this pistachio nut dryer is a burner fired on natural gas with LPG as backup fuel. The applicant has proposed to install a pistachio nut dryer equipped with a burner fired on natural gas with LPG as backup fuel; therefore BACT for VOC emissions is satisfied.

Appendix H

HRA/AAQA Summary

San Joaquin Valley Air Pollution Control District Risk Management Review & AAQA

To: Robert Gilles – Permit Services
 From: Cheryl Lawler – Technical Services
 Date: December 3, 2012
 Facility Name: Paramount Farms, Inc.
 Location: 13646 Highway 33, Lost Hills
 Application #(s): S-377-50-1
 Project #: S-1122706

A. RMR SUMMARY

RMR Summary			
Categories	Natural Gas Roaster (Unit 50-1)	Project Totals	Facility Totals
Prioritization Score	0.00	0.00	>1
Acute Hazard Index	0.00	0.00	0.12
Chronic Hazard Index	0.00	0.00	0.57
Maximum Individual Cancer Risk	1.07E-08	1.07E-08	4.23E-07
T-BACT Required?	No		
Special Permit Conditions?	Yes		

Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

Unit 50-1

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

B. RMR REPORT

I. Project Description

Technical Services received a request on November 27, 2012, to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for the installation of a new 6 MMBtu/hr natural gas rotary nut roaster to serve a new pistachio nut flavoring drying operation.

II. Analysis

For the RMR, toxic emissions from the proposed unit were calculated using 2001 Ventura County Air Pollution Control District emission factors for natural gas external combustion. In accordance with the District's *Risk Management Policy for Permitting New and Modified Sources* (APR 1905-1, March 2, 2001), risks from the proposed unit were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEART's database. The unit's prioritization score was less than 1.0 (see RMR Summary Table); however, the facility's total prioritization scores were already over 1. Therefore, a refined Health Risk Assessment was required and performed for the unit. AERMOD was used with point source parameters outlined below and concatenated 5-year meteorological data from Hanford to determine maximum dispersion factors at the nearest residential and business receptors. The dispersion factors were input into the HARP model to calculate the Chronic and Acute Hazard Indices and the Carcinogenic Risk.

The following parameters were used for the review:

Analysis Parameters Unit 50-1			
Source Type	Point	Closest Receptor Distance (m)	1859
Stack Height (m)	6.1	Closest Receptor Type	Residence
Stack Diameter (m)	0.61	Project Location	Rural
Stack Exit Velocity (m/s)	32.34	Natural Gas Annual Usage (MMBtu/yr)	52,560
Stack Exit Temperature (K)	322	Natural Gas Hourly Usage (MMBtu/hr)	6.0

Technical Services also performed modeling for criteria pollutants CO, NO_x, SO_x, PM₁₀, and PM_{2.5}, as well as the RMR for the unit. Emission rates used for criteria pollutant modeling were 0.13 lb/hr CO, 0.5 lb/hr NO_x, 0.02 lb/hr SO_x, 0.1 lb/hr PM₁₀, and 0.1 lb/hr PM_{2.5}.

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

Values are in µg/m³

Natural Gas Nut Roaster	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO _x	Pass	X	X	X	Pass
SO _x	Pass	Pass	X	Pass	Pass
PM ₁₀	X	X	X	Pass ¹	Pass ¹
PM _{2.5}	X	X	X	Pass ¹	Pass ¹

*Results were taken from the attached PSD spreadsheet.

¹The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

III. Conclusions

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

The acute and chronic indices are below 1.0; and the maximum individual cancer risk associated with the unit is **1.07E-08**, which is less than the 1 in a million threshold. In accordance with the District's Risk Management Policy, the project is approved **without** Toxic Best Available Control Technology (T-BACT).

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

Attachments:

RMR Request Form & Attachments
Prioritization
RMR Risk Results
AAQA Results
Facility Summary

Appendix I

Compliance Certification

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**San Joaquin Valley
Unified Air Pollution Control District**

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

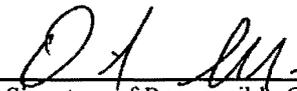
- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE
 MINOR PERMIT MODIFICATION AMENDMENT

COMPANY NAME: Paramount Farms, Inc.	FACILITY ID: S - 377
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name:	
3. Agent to the Owner:	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the source identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the source identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:


Signature of Responsible Official

7/10/2012
Date

Dave Szefflin
Name of Responsible Official (please print)

Vice President of Operations
Title of Responsible Official (please print)

Establish add a fifth flavoring line with rotary dehydrator.