



DEC 16 2009

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-1095418**

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authority to Construct for Paramount Farms located on Highway 33, approximately four miles north of Blackwell's Corner, in Kern County, which has been issued a Title V permit. Paramount Farms is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. The applicant is proposing to replace the spun polyester bags serving the pistachio nut finishing operations aspirators with fabric filters.

Enclosed is the engineering evaluation of this application with a copy of the current Title V permit and proposed Authority to Construct # S-377-20-20 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. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner  
Director of Permit Services

DW: SD/cm

Enclosures

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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

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

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



DEC 16 2009

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-1095418**

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. The applicant is proposing to replace the spun polyester bags serving the pistachio nut finishing operations aspirators with fabric filters.

Enclosed is the engineering evaluation of this application with a copy of the current Title V permit and proposed Authority to Construct # S-377-20-20 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. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner  
Director of Permit Services

DW: SD/cm

Enclosures

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Executive Director/Air Pollution Control Officer

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Tel: 661-392-5500 FAX: 661-392-5585



DEC 16 2009

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

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)  
District Facility # S-377  
Project # S-1095418**

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. The applicant is proposing to replace the spun polyester bags serving the pistachio nut finishing operations aspirators with fabric filters.

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. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,



David Warner  
Director of Permit Services

DW: SD/cm

Enclosure

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585

**NOTICE OF PRELIMINARY DECISION  
FOR THE ISSUANCE OF AUTHORITY TO CONSTRUCT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed modification of Paramount Farms for its pistachio nut finishing operation located on Highway 33, approximately four miles north of Blackwell's Corner, in Kern County, California. The applicant is proposing to replace the spun polyester bags serving the pistachio nut finishing operations aspirators with fabric filters.

The District's analysis of the legal and factual basis for this proposed action, project #S-1095418, is available for public inspection at 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.

Date	
Engineer Name	Steve Davidson
Engineer's Regional Manager	Leonard Scandura
Facility Name	Paramount Farms
Facility #	S-377
Project #	S-1095418
Operation Type (gas plant, heavy oil facility, etc)	pistachio nut finishing operation
Location	located on Highway 33, approximately four miles north of Blackwell's Corner, in Kern County
	The following should make sense:  This is for its pistachio nut finishing operation located on Highway 33, approximately four miles north of Blackwell's Corner, in Kern County, California.
ATC's with COC (i.e. ATC # S-1234-3-2)	S-377-20-20
More than 1 ATC?	No
Current Title V Permit (i.e. PTO # S-1234-3-1)	S-377-20-07
Modification Details (Complete Sentences)	The applicant is proposing to replace the spun polyester bags serving the pistachio nut finishing operations aspirators with fabric filters.
Contact Receiving Proposed	Mr. Daniel Lee
Mailing Address	13646 Highway 33 Lost Hills, CA 93249
Newspaper	Bakersfield Californian

**San Joaquin Valley Air Pollution Control District**  
**Authority to Construct**  
**Application Review**  
**Pistachio Nut Finishing Operation**

Facility Name:	Paramount Farms	Date:	November 26, 2009
Mailing Address:	13646 Highway 33 Lost Hills, CA 93249	Engineer:	Steve Davidson
Contact Person:	Daniel Lee	Lead Engineer:	Allan Phillips <i>ASUPPACDC</i>
Telephone:	(661) 797-6505		DEC 08 2009
Fax:	(661) 797-6542		
E-Mail:	<a href="mailto:dlee@paramountfarms.com">dlee@paramountfarms.com</a>		
Application No:	S-377-20-20		
Project No:	S-1095418		
Deemed Complete:	November 24, 2009		

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**I. PROPOSAL:**

Paramount Farms submitted an Authority to Construct application to modify their pistachio nut finishing operation (permit S-377-20).

**Proposed Modifications:**

The applicant is proposing to replace the spun polyester bags serving the pistachio nut finishing operations aspirators with fabric filters. The polyester bags/fabric filters provide general housekeeping and provide vector control and do not control PM<sub>10</sub> emissions.

The applicant has proposed the following permits conditions:

Operation shall include packaging lines with aspirators served by ~~spun polyester dust bags~~ fabric filters.

Because the aspirators and collection systems are not pollution control devices, the applicant has proposed to remove the following permits conditions:

Aspirating equipment listed above shall be exhausted indoors and only through fabric filters achieving 99% efficiency in removal of PM<sub>10</sub>.

Records of fabric filter PM<sub>10</sub> removal efficiency shall be maintained.

The replacement of the fabric filters with polyester bags is not a modification as defined in Rule 2201; therefore, NSR does not apply.

Paramount Farms received their Title V Permit on August 16, 2001. This proposal can be classified as a Title V significant modification pursuant to Rule 2520, Section 3.29, 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. Paramount Farms must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC issued with this project.

## II. APPLICABLE RULES:

- Rule 2201 New and Modified Stationary Source Review Rule (9/21/2006)
- Rule 2520 Federally Mandated Operating Permits (6/21/2001)
- Rule 4101 Visible Emissions (2/17/2005)
- Rule 4102 Nuisance (12/17/1992)
- Rule 4201 Particulate Matter Concentration (12/17/1992)
- Rule 4202 Particulate Matter Emission Rate (12/17/1992)
- Rule 4301 Fuel Burning Equipment (12/17/1992) – **does not apply to pistachio dryers which utilize direct heat transfer (products of combustion contact material being dried)**
- Rule 4309 Dryers, Dehydrators, and Ovens (12/15/2005)
- Rule 4801 Sulfur Compounds (12/17/1992)
- CH&SC 41700 Health Risk Assessment
- CH&SC 42301.6 School Notice

## III. PROJECT LOCATION:

The facility is located on Highway 33, approximately four miles north of Blackwell's Corner, in Kern County. 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:

Pistachios are received within hours of being harvested. The moist nuts are routed through a pre-cleaning stage to remove small twigs, leaves, and trash. The nuts are extremely moist at this point. The nuts enter the peelers where the outer hull is removed. Water is used to convey the nuts through various pieces of equipment to determine which nuts do not have any "meat" or product inside the shell. The nuts are routed through wet hullers to remove any remaining hull or skin. After hulling, the nuts are dried and placed in storage bins. At this point, handling/storage of the pistachios is not the source of air contaminant emissions since the hulls and skins have been removed and all that remains are the pistachio nut meats. Fans and heaters are used as required in connection with the storage bins to achieve the optimum moisture content for the stored product. After this initial processing, the pistachio nuts can be stored without sustaining damage prior to finishing operations.

## V. EQUIPMENT LISTING:

### Pre-Project Equipment Description:

S-377-20-18: 23.33 MMBTU/HR GAS-FIRED PISTACHIO NUT FINISHING OPERATION CONSISTING OF BIN DUMPERS, SURGE HOPPERS, BUCKET ELEVATORS, CONVEYORS, PRE-CLEANING EQUIPMENT, SIZE GRADERS, NEEDLE PICKERS, HAND SORTING TABLES, ELECTRONIC COLOR SORTERS AND ASPIRATORS WITH SPUN POLYESTER DUST BAGS.

### Proposed Modification:

Replace the spun polyester dust bags serving the packaging lines with a vacuum system vented to fabric collectors

S-377-20-20: MODIFICATION OF 23.33 MMBTU/HR GAS-FIRED PISTACHIO NUT FINISHING OPERATION CONSISTING OF BIN DUMPERS, SURGE HOPPERS, BUCKET ELEVATORS, CONVEYORS, PRE-CLEANING EQUIPMENT, SIZE GRADERS, NEEDLE PICKERS, HAND SORTING TABLES, ELECTRONIC COLOR SORTERS AND ASPIRATORS WITH SPUN POLYESTER DUST BAGS: REPLACE SPUN POLYESTER BAGS WITH VACUUM SYSTEMS VENTED TO FABRIC COLLECTORS

### Post Project Equipment Description:

S-377-20-20: 23.33 MMBTU/HR GAS-FIRED PISTACHIO NUT FINISHING OPERATION CONSISTING OF BIN DUMPERS, SURGE HOPPERS, BUCKET ELEVATORS, CONVEYORS, PRE-CLEANING EQUIPMENT, SIZE GRADERS, NEEDLE PICKERS, HAND SORTING TABLES, ELECTRONIC COLOR SORTERS AND ASPIRATORS VACUUM SYSTEMS VENTED TO FABRIC COLLECTORS

## VI. EMISSION CONTROL TECHNOLOGY EVALUATION:

The pollutants of concern are the products of combustion emitted from the natural gas-fired dryer, roaster and heater burners - NO<sub>x</sub>, CO, VOC, PM<sub>10</sub> and SO<sub>x</sub>. PM<sub>10</sub> is generated from the pre-cleaning process.

The post pre-cleaning processing has a sufficiently high water and moisture content to reduce particulate emissions to negligible levels except from the following: pre-cleaning cyclones and gas-fired heaters & dryers.

The heaters and dryers are 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 cool burner temperature, which inherently produces less NO<sub>x</sub> than other types of dryers. Paramount Farms has source tested pistachio dryers in the past and has

established that pistachio dryers heaters emit NOx at 0.0832 lb NOx/MMBtu (See Projects 901 109. S-130, and 91 1001 1, 940148 & 940289 S-377 along with BACT Guideline 1.6.8). The applicant is not proposing any additional control equipment. Also, due to the design of pistachio dryers and heaters, additional control equipment is not considered feasible.

The aspirators are designed to remove unwanted pieces of nut, skin, etc. from the pistachio processing equipment. The accumulated material will be collected by the new fabric filters (see fabric filter specifications in attachment C). The filters do not function as an air pollution control device but as collect the material to stop it from becoming a food source for rats and insects.

## VII. GENERAL CALCULATIONS:

As stated in the Proposal Section, the this is not a NSR modification; therefore, calculations are not required.

## VIII. COMPLIANCE:

### Rule 2201 New and Modified Stationary Source Review Rule

Pursuant to section 2.0 "This rule shall apply to all new stationary sources and all *modifications* to existing stationary sources which are subject to the District permit requirements and after construction emit or may emit one or more affected pollutant..."

Pursuant to section 3.25 a *modification* is an action including at least one of the following items:

- 3.25.1.1 Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.
- 3.25.1.2 Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change.
- 3.25.1.3 An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.
- 3.25.1.4 Addition of any new emissions unit which is subject to District permitting requirements.
- 3.25.1.5 A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

The replacement of the fabric filters with polyester bags for improved vector control does not result in any of the preceding items; therefore, this project is not a modification pursuant to the section 3.25 definition and the facility is not a new stationary source; therefore, this rule does not apply.

### **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 3.20.2 states that a minor permit modifications "Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions". The condition requiring recordkeeping of the aspirating equipment efficiency will be removed from the permit, which is a relaxation in recordkeeping requirements for the emission unit. As a result, the proposed project constitutes a Significant Modification to the Title V Permit pursuant to Section 3.29.

### **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). As all of the combustion equipment is fired solely on natural gas, 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.

As stated above, there are no increases in emissions associated with any emission units in this project, therefore a health risk assessment is not necessary and no further risk analysis is required.

### **Rule 4201 Particulate Matter Concentration**

This rule limits emissions of dust, fumes, or total suspended particulate matter emission in excess of 0.1 grain per cubic foot of gas at dry standard conditions. Because the existing

burners are natural gas-fired and the processes involve clean wet pistachios, compliance with Rule 4201 is expected.

**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 provided the equipment is continued to be well maintained continued compliance with this rule is expected.

**Rule 4309 Dryers, Dehydrators, and Ovens**

The existing emission units used to dry the pistachio nuts are considered as dehydrators. These units are subject to section 5.1 of the rule and are required to be fired on PUC quality natural gas. The units are fired on PUC quality natural gas; therefore, continued compliance with this rule is expected.

**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 SO<sub>2</sub>, on a dry basis averaged over 15 consecutive minutes.

Using the ideal gas equation and the emission factor presented in Section VII, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = \frac{nRT}{P}$$

With:

N = moles SO<sub>2</sub>

T (Standard Temperature) = 60°F = 520°R

P (Standard Pressure) = 14.7 psi

R (Universal Gas Constant) =  $\frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}}$

$$\frac{0.00285 \text{ lb-SO}_x}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8,578 \text{ dscf}} \times \frac{1 \text{ lb} \cdot \text{mol}}{64 \text{ lb}} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}} \times \frac{520 \text{ °R}}{14.7 \text{ psi}} \times \frac{1,000,000 \cdot \text{parts}}{\text{million}} = 2 \frac{\text{parts}}{\text{million}}$$

$$\text{Sulfur Concentration} = 2 \frac{\text{parts}}{\text{million}} < 2,000 \text{ ppmv (or 0.2\%)}$$

Therefore, compliance with District Rule 4801 requirements is expected.

**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.

**IX. RECOMMENDATION:**

Compliance with all applicable rules and regulations is expected. Issue Authority to Construct S-377-20-20 subject to the permit conditions on the attached Authority to Construct permit in Appendix A.

**X. BILLING INFORMATION:**

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-377-20-20	3020-02-H	23.33 MMBtu/hr	\$953.00

**Appendices**

- A: Draft Authority to Construct permit S-377-20-18 and Emissions Profile
- B: Current Permit to Operate S-377-20-17 and ATC S-377-20-18
- C: Process Flow Diagram & Fabric Filter Specification
- D: BACT Guidelines 1.6.7 & 1.6.8
- E: Net Change in Quarterly Emissions Quarterly Net Emissions Change
- F: Title V Modification – Compliance Certification Form

**APPENDIX A**  
**Draft Authority to Construct Permit S-377-20-20 and**  
**Emissions Profile**

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

**DRAFT**  
ISSUANCE DATE: DRAFT

PERMIT NO: S-377-20-20

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

SECTION: 23 TOWNSHIP: 25S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 23.33 MMBTU/HR GAS-FIRED PISTACHIO NUT FINISHING OPERATION CONSISTING OF BIN DUMPERS, SURGE HOPPERS, BUCKET ELEVATORS, CONVEYORS, PRE-CLEANING EQUIPMENT, SIZE GRADERS, NEEDLE PICKERS, HAND SORTING TABLES, ELECTRONIC COLOR SORTERS AND ASPIRATORS WITH SPUN POLYESTER DUST BAGS: REPLACE SPUN POLYESTER BAGS WITH VACUUM SYSTEMS VENTED TO FABRIC COLLECTORS

**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 NSR Rule] 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. Operation shall include 8 MMBtu/hr roaster consisting of two 4 MMBtu/hr burners and high-efficiency cyclones serving the exhaust stacks. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Operation shall include two 6.0 MMBtu/hr rotary roasters each equipped with a high efficiency cyclone, an Anderson 2000 wet scrubber, and induced draft fan. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Operation shall include packaging lines with aspirators served by fabric filters. [District NSR Rule] 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

**DRAFT**

DAVID WARNER, Director of Permit Services

S-377-20-20 : Dec 9 2008 8:41AM - DAVIDSOS : Joint Inspection NOT Required

6. Operation shall include scalping decks, size graders, and color sorters served by aspirators ventilated to fabric collector. [District Rule 2201] Federally Enforceable Through Title V Permit
7. There shall be no visible emissions in excess of 5% opacity associated with this permit unit. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Fabric collector shall be equipped with an operating differential pressure indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Differential pressure indicator shall read within ranges specified by the manufacturer of the precleaner fabric collectors. [District NSR Rule] Federally Enforceable Through Title V Permit
10. 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 NSR Rule] Federally Enforceable Through Title V Permit
11. Entrained (non-combustion) PM10 emission rate from the 8 MMBtu/hr roaster shall not exceed 0.01 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
12. PM10 emission rate from the outlets of the scrubbers serving the two 6.0 MMBtu/hr rotary roasters shall not exceed 0.08 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Daily natural gas consumption for permit S-377-20 shall not exceed 1.5 MMscf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Annual natural gas consumption for permit S-377-20 shall not exceed 125.0 MMscf/yr. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Emission rate per MMscf gas burned shall not exceed any of the following: PM10: 2.8 lb/MMscf, SO<sub>x</sub> as (SO<sub>2</sub>): 2.85 lb/MMscf, NO<sub>x</sub> (as NO<sub>2</sub>): 83.2 lb/MMscf, VOC: 3.8 lb/MMscf, or CO: 21.0 lb/MMscf. [District NSR Rule] Federally Enforceable Through Title V Permit
16. Combustion equipment shall be equipped with operational non-resettable, totalizing fuel meters to demonstrate compliance with fuel consumption limits. [District NSR Rule] 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 1080] 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 1080] Federally Enforceable Through Title V Permit
19. Visible emissions at cyclones 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
20. Units may only be fired on PUC regulated natural gas. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. Particulate matter emissions shall not exceed 0.1 gr/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
22. Dust collection system shall be completely inspected annually while in operation for evidence of particulate matter leaks and repaired as needed. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
23. Dust collector filters shall be thoroughly inspected annually for tears, scuffs, abrasions, holes, or any evidence of particulate matter leaks and shall be replaced as needed. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. Visible emissions at baghouse shall be inspected annually 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

**DRAFT**  
CONDITIONS CONTINUE ON NEXT PAGE

25. Visible emissions at bin dumpers, surge hoppers, bucket elevators, conveyors, precleaning equipment, size graders, needle pickers, hand sorting tables, electronic color sorters and aspirators shall be inspected annually under material and environmental conditions, such as dry and windy, where high emissions are expected. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
26. 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
27. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. Compliance with this requirement is assured by only using PUC regulated natural gas. [Kern County Rule 407] Federally Enforceable Through Title V Permit
28. {462} Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. 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
30. ATC S-377-20-18 shall be implemented prior to or concurrently when this Authority to Construct is implemented into a Permit to Operate. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

Permit #: S-377-20-20	Last Updated
Facility: PARAMOUNT FARMS	11/26/2009 DAVIDSOS

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	10400.0	356.0	1138.0	2625.0	475.0
Daily Emis. Limit (lb/Day)	124.8	4.3	6.4	31.5	5.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	0.0
Q2:	0.0	0.0	0.0	0.0	0.0
Q3:	0.0	0.0	0.0	0.0	0.0
Q4:	0.0	0.0	0.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

**APPENDIX B**  
**Current Permit to Operate**  
**S-377-20-17 and ATC S-377-20-18**

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-377-20-17

EXPIRATION DATE: 10/31/2010

SECTION: 23 TOWNSHIP: 25S RANGE: 19E

## EQUIPMENT DESCRIPTION:

NUT FINISHING OPERATION WITH AN 8 MMBTU/HR ROASTER CONSISTING OF TWO 4 MMBTU/HR BURNERS AND HIGH-EFFICIENCY CYCLONES SERVING EXHAUST STACKS, A 1.5 MMBTU/HR AEROGLIDE ROASTER, FOUR 4.0 MMBTU/HR DRYERS DERATED TO 0.75 MMBTU/HR, FLOATION DECK WITH 0.043 MMBTU/HR HEATER WITH THE FOLLOWING PERMIT EXEMPT WET PROCESSING EQUIPMENT: BIN DUMPER(S), SURGE HOPPER(S), BUCKET ELEVATOR(S), CONVEYOR(S), PRECLEANING EQUIPMENT, SIZE GRADER(S), NEEDLE PICKER(S), HAND SORTING TABLE(S), ELECTRONIC COLOR SORTER(S) AND ASPIRATOR(S) WITH SPUN POLYESTER DUST BAG(S)

## PERMIT UNIT REQUIREMENTS

---

1. Operation shall include 8 MMBtu/hr roaster consisting of two 4 MMBtu/hr burners and high-efficiency cyclones serving exhaust stacks, and 1.5 MMBtu/hr Aeroglide roaster. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Operation shall include two 6.0 MMBtu/hr rotary roasters each equipped with a high efficiency cyclone, an Anderson 2000 wet scrubber, and induced draft fan. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Operation shall include packaging lines with aspirators served by spun polyester dust bags. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Operation shall include scalping decks, size graders, and color sorters served by aspirators ventilated to fabric collector. [District Rule 2201]
5. There shall be no visible emissions in excess of 5% opacity associated with this permit unit. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Fabric collector shall be equipped with an operating differential pressure indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Differential pressure indicator shall read within ranges specified by the manufacturer of the precleaner fabric collectors. [District NSR Rule] Federally Enforceable Through Title V Permit
8. 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 NSR Rule] Federally Enforceable Through Title V Permit
9. Entrained (non-combustion) PM10 emission rate from the 8 MMBtu/hr roaster shall not exceed 0.01 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Entrained (non-combustion) PM10 emission rate from the 1.5 MMBtu/hr Aeroglide roaster shall not exceed 0.00 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
11. PM10 emission rate from the outlets of the scrubbers serving the two 6.0 MMBtu/hr rotary roasters shall not exceed 0.08 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Aspirating equipment listed above shall be exhausted indoors and only through fabric filters achieving 99% efficiency in removal of PM10. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

13. Daily natural gas consumption for permit S-377-20 shall not exceed 1.5 MMscf/day. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Annual natural gas consumption for permit S-377-20 shall not exceed 125.0 MMscf/yr. [District NSR Rule] Federally Enforceable Through Title V Permit
15. 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 NSR Rule] Federally Enforceable Through Title V Permit
16. Combustion equipment shall be equipped with operational non-resettable, totalizing fuel meters to demonstrate compliance with fuel consumption limits. [District NSR Rule] Federally Enforceable Through Title V Permit
17. Permittee shall maintain daily records of volume of fuel usage and fuel meter identification. [District Rule 1080] Federally Enforceable Through Title V Permit
18. Visible emissions at cyclones 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
19. Units may only be fired on PUC regulated natural gas. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
20. Particulate matter emissions shall not exceed 0.1 gr/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
21. Dust collection system shall be completely inspected annually while in operation for evidence of particulate matter leaks and repaired as needed. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. Dust collector filters shall be thoroughly inspected annually for tears, scuffs, abrasions, holes, or any evidence of particulate matter leaks and shall be replaced as needed. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
23. Records of fabric filter PM10 removal efficiency shall be maintained. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
24. Records of dust collector maintenance, inspections, and repair shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
25. Visible emissions at baghouse shall be inspected annually 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
26. Visible emissions at bin dumpers, surge hoppers, bucket elevators, conveyors, precleaning equipment, size graders, needle pickers, hand sorting tables, electronic color sorters and aspirators shall be inspected annually under material and environmental conditions, such as dry and windy, where high emissions are expected. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
27. 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
28. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. Compliance with this requirement is assured by only using PUC regulated natural gas. [Kern County Rule 407] Federally Enforceable Through Title V Permit
29. Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

30. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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

**APPENDIX C**  
**Process Flow Diagrams & Fabric Filter Specification**







## **FABRIC CONSTRUCTION**

**FIBERS**: A single slender elongated natural or synthetic filament.

**BATT**: A continuous web or layer of fibers.

**SCRIM**: A very loosely woven fabric similar to netting that is used as support or backing.

**NEEDLEFELT**: A non-woven fabric of typically synthetic fibers that is formed when barbed needles move thru multiple batts of loose fiber to entangle and interlock the fibers and is then heatset to produce a fabric with excellent filtration characteristics. The batts are sometimes placed on a reinforcing scrim and needled together.

**SUPPORTED**: Felt fabric manufactured with a scrim.

**SELF SUPPORTED or UNSUPPORTED**: Felt fabric manufactured without a scrim.

**MULTILAYERED**: Joining layers of different weight or type of fibers into a single fabric. This is sometimes called capped or dual density fabric.

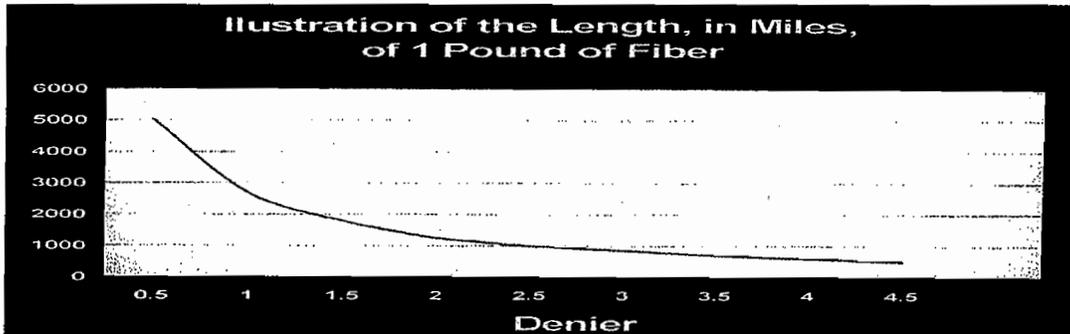
**DUAL DENSITY**: Joining fibers of different weight by blending or layering into a single fabric.

**MEMBRANE**: A microscopic layer of PTFE laminated onto a substrate of woven or non-woven fabric.

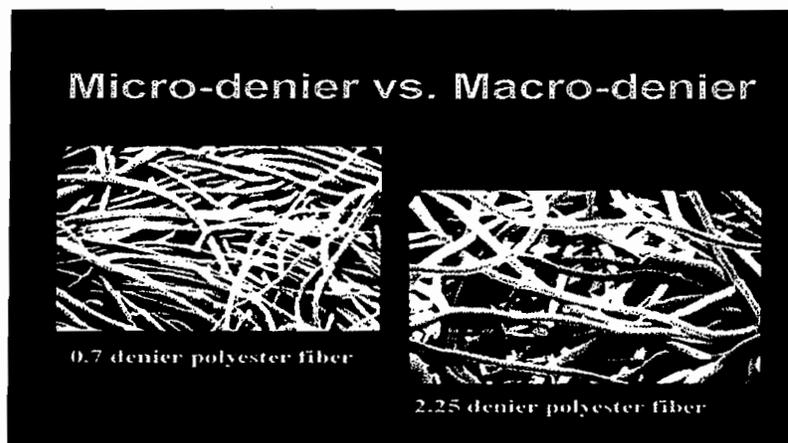
## **FABRIC WEIGHT**

**BASIS WEIGHT:** The weight of a unit area of fabric usually expressed as ounces per square yard.

**DENIER:** The weight in grams of 9,000 meters, approximately 10,000 yards, of a single fiber.



**MICRO-DENIER:** A fiber which has a relative cross section not greater than 10 microns. Micro-denier felts use more fiber to achieve the same basis weight of felt using standard denier fiber. With polyester felt, 0.70 micro-denier fiber felt is layered onto standard 2.25 or 3.00 denier fiber felt to produce a fabric with higher filtration efficiencies and improved air flow characteristics.



# DYNA-MAC FELT

Ever tightening environmental restrictions are placing new demands on business and the fabric filtration industry. Fortunately, the answer to tomorrow's tighter restrictions can be found today in MAC'S DYNA-MAC Felt technology.

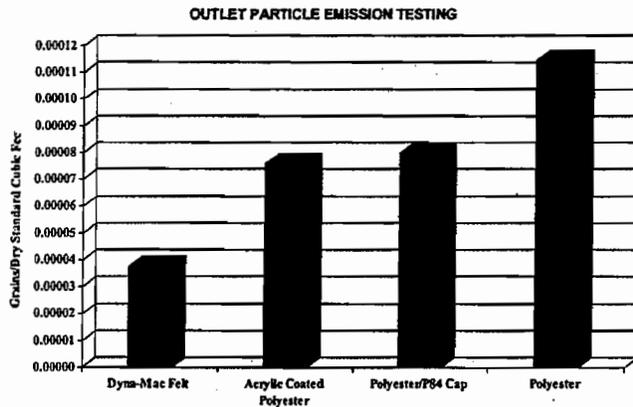
MAC'S DYNA-MAC Felts are engineered with micro-denier fibers which provide the highest filtration efficiency of any non-membrane filter felt. Tests run by an independent environmental testing agency show that when compared to the industry standard Polyester Felt,

## MAC'S DYNA-MAC

1. Improved efficiency 67% (ASTM D6830-02; PM 2.5)
2. Lowered  $\Delta P$  45%
3. Required 46% fewer pulses to maintain a set  $\Delta P$

### PM 2.5 Efficiency Testing

## *Dyna-Mac Felt*

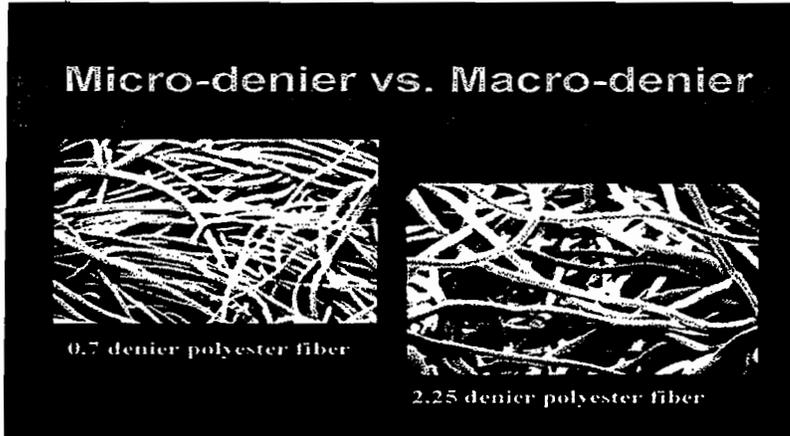


NOTE: TEST DUST PARTICLE SIZE DISTRIBUTION: 77% LESS THAN 2.5 MICRON

PM 2.5 Efficiency tests compared MAC's DYNA-MAC to Polyester felt, acrylic coated polyester felt and polyester felt with a P-84 cap. MAC'S DYNA-MAC was 53% more efficient than polyester felt with a P-84 cap, which has for several years been the "high efficiency" felt of choice for many difficult applications.

**Dyna-MAC FELT MEANS LOWER OPERATING COSTS AS WELL AS HIGHER FILTER EFFICIENCIES.**

**Dyna-MAC Felts are produced with micro-denier fibers to provide more surface area than traditional size fibers.**



**It is the increased surface area of the micro-denier fibers that keep the dust particles on the surface of the Dyna-Mac filter bag. The improvement in surface filtration also provides excellent cake release in addition to the excellent filtration efficiency. The improved cake release and lower  $\Delta P$  leads to lower fan horsepower requirements and fewer pulses to maintain production demand. Less cleaning means reduced consumption of compressed air. Therefore, the end result of switching from regular felt bags to bags made with Dyna-Mac felt is lower operating costs and increased profits.**

#### **AVAILABLE FIBERS FOR DYNA-MAC FELT**

- POLYESTER
- PPS (RYTON)
- P-84
- HOMOPOLYMER ACRYLIC
- ARAMID (NOMEX)
- KERMEL TECH

## Comparison of MAC DYNA-MAC Polyester Felt to Traditional Polyester Felt

Tested by ETS with an Air-to-Cloth Ratio of 6.6 to 1

<b>FABRIC DESIGNATION</b>	16 oz. PE	16 oz. DYNA-MAC
<b>DUST FEED</b>	Pural NF	Pural NF

### VERIFICATION TEST

#### RESULTS

Mean Outlet Particle Conc. PM 2.5 (gr/dscf)	0.0001146	0.0000095
Mean Outlet Particle Conc. Total Mass (gr/dscf)	0.0001153	0.0000170
Initial Residual Pressure Drop (in. w.g.)	1.48	1.49
Change in Residual Pressure Drop (in. w.g.)	0.42	0.23
Average Residual Pressure Drop (in. w.g.)	1.74	1.63
Mass Gain of Filter Sample (g)	1.43	0.70
Average Filtration Cycle Time (s)	48	97
Number of Pulses	448	223

### RESIDUAL PRESSURE

#### DROP

At Start of:

Conditioning Period (in. w.g.)	0.05	0.10
Recovery Period (in. w.g.)	1.39	1.43
Performance Test Period (in. w.g.)	1.48	1.49

### REMOVAL EFFICIENCY (%)

Dust Conc. (gr/dscf)	8.17	7.87
PM 2.5	99.9981866	99.99984
Total Mass	99.9985893	99.99978

**VERIFICATION TESTING OF BAGHOUSE FILTRATION PRODUCTS  
SUMMARY OF RESULTS AT 6.6/1 A/C**

RUN ID.	ETS Test #
FABRIC DESIGNATION	Style
DUST FEED	Pural NF (Aluminum Oxide) minimum 40% of the dust concentration less than 2.5 micron
<u>VERIFICATION OF TEST RESULTS</u>	<b>ASTM D6830-02</b>
Mean Outlet Particle Conc. PM 2.5 (gr/dscf)	Outlet emissions in grains/dry standard cubic feet for 2.5 micron dust
Mean Outlet Particle Conc. Total mass (gr/dscf)	Outlet emissions in grains/dry standard cubic feet for all size dust particles
Initial Residual Pressure Drop (in. w.g.)	Differential pressure at the start of the test period after the first pulse
Change in Residual Pressure Drop (in. w.g.)	The difference in differential pressure at the start and end of the test period
Average Residual Pressure Drop (in. w.g.)	Average differential pressure for the 6 hour test period. Average is based on 60 minute blocks
Mass Gain of Filter Sample (g)	Difference in weight gain in grams from the start and the end of the test period
Average Filtration Cycle Time (s)	# seconds between pulses to maintain 4" differential pressure
Number of Pulses	Total # of pulses for the 6 hour test period set to clean at 4" differential pressure
<u>RESIDUAL PRESSURE DROP</u> At Start of:	Differential pressure recorded 3 seconds after the pulse cleaning cycle
Conditioning Period (in. w.g.)	10,000 rapid pulses at 3 second intervals to simulate long term operation
Recovery Period (in. w.g.)	30 normal pulse cycles set to clean at 4" differential pressure
Performance Test Period (in. w.g.)	6 hour test period with the pulse cycle set to clean at 4" differential pressure
<u>REMOVAL EFFICIENCY (%)</u> Dust Conc (gr/dscf)	Inlet dust loading in grains/dry standard cubic feet
PM 2.5	% of filtration efficiency on 2.5 micron dust
Total Mass	% of filtration efficiency for all size dust particles
	Dust particle size distribution for test was 77.35% less than 2.5 micron

## **FABRIC FINISHES AND CHEMICAL TREATMENTS**

**PLAIN:** The fabric is supplied as is from the needling process with microscopic fibers protruding outward from the surface of the fabric

**CALENDAR:** Compressing the fabric between rollers to improve the density.

**SINGED:** Running the fabric over an open flame to remove high points and protruding fibers.

**EGGSHELL:** The fabric passes thru hot calendar rollers to produce a smooth eggshell like surface.

**GLAZED:** Similar to an eggshell finish, but with additional pressure applied by the calendar rollers to produce a smooth high sheen finish.

**ACRYLIC COATED:** Acrylic foam formulation that is applied to the surface of the fabric to provide a "factory installed" dust cake that improves filtration efficiency, dust release and water / oil repellent properties.

**OLEOPHOBIC:** A bath impregnation of a fluorocarbon resin that provides excellent water and oil repellency, improved dust release and chemical resistance.

**SILICON EMULSION:** A silicon treatment that coats each fiber to improve dust release.

**TEFLON BATH:** PTFE is applied to the entire structure of the fabric encapsulating each individual fiber to improve chemical resistance and dust release.

**FLAME RETARDENT:** A formulation that is applied to each fiber of the fabric to enhance the flame retardance of the fabric.

## **FABRIC MECHANICAL PROPERTIES**

**WEIGHT**: A measure of the average weight of the fabric usually expressed in ounces per square yard.

**THICKNESS**: A measure of the thickness of the fabric under a specific load of compression.

**AIR PERMEABILITY**: Often called Frazier or Frazier Number, it is the ease in which air will pass thru the fabric and is the measure of the volumetric flow rate of standard air expressed in cubic feet per minute (CFM) passing thru a square foot of fabric with a resistance to flow or static pressure (SP) of 0.5 inches water column (w.g.).

**MULLEN BURST STRENGTH**: Is an indicator of fabric strength and measures in pounds per square inch (PSI) of the fabric's ability to resist rupture.

## **FELT FABRIC TYPES**

**POLYESTER**: Also known as Dacron®, polyester fabric is the most commonly used fabric for dust collector bags. It provides an economical combination of good resistance to both acids and alkalis, has excellent abrasion resistance and a maximum operating temperature of 275° F.

**POLYPROPYLENE**: Also known as Herculon®, polypropylene has excellent resistance to both acids and alkalis, has good abrasion resistance and a maximum operating temperature of 180° F. Micro-denier fiber is not available.

**HOMOPOLYMER ACRYLIC**: Also known as Acrylic or Orlon®, has excellent resistance to acids, good resistance to alkalis, fair abrasion resistance and a maximum operating temperature of 260° F.

**ARAMID**: Also known as Nomex® or Conex®, aramid has fair resistance to both acids and alkalis, has excellent abrasion resistance and a maximum operating temperature of 375° F.

**PPS**: Also known as Ryton®, Torcon®, or Procon®, PPS has excellent resistance to acids, good resistance to alkalis, good abrasion resistance and a maximum operating temperature of 375° F.

**P-84**: Due to the irregular fiber shape that provides more surface area, P-84 fabric achieves higher filtration efficiencies than other similar denier fibers. It has good resistance to acids, fair resistance to alkalis, good abrasion resistance and a maximum operating temperature of 460° F.

**PTFE**: Also known as Teflon®, PTFE has excellent resistance to both acids and alkalis, poor abrasion resistance, and has a maximum operating temperature of 500° F. Micro-denier fiber is not available.

# Resistance Data

FIBER	ACIDS	ALKALIS	ABRASION	MAXIMUM OPERATING TEMP.
POLYPROPYLENE	Excellent	Excellent	Good	180°
POLYESTER	Good	Good	Excellent	275°
HOMOPOLYMER ACRYLIC	Excellent	Good	Fair	260°
NOMEX	Fair	Fair	Excellent	375°
PPS	Excellent	Good	Good	375°
PAN/PPS	Excellent	Good	Good	375°
PAN/ARAMID	Good	Good	Excellent	375°
KERMEL	Good	Fair	Good	420°
P84	Good	Fair	Good	460°
GLASS	Excellent	Fair	Poor	500°
TEFLON	Excellent	Excellent	Poor	500°

## **POLYESTER SINGED**

Construction:	Unsupported Needlefelt
Composition:	100% Polyester Felt
Finish:	Heatset, Singed one side
Weight:	15.0 – 17.0 oz/sq yd
Thickness:	0.065" – 0.850"
Air Permeability:	20 – 40 CFM at ½" W.G.
Mullen Burst Strength:	400 PSI minimum
Dimensional Stability:	3% maximum shrinkage at 300° F. for 2 hours
Temperature Resistance	
Continuous:	275°F
Peaks:	300°F
Resistance to Acids:	Fair
Resistance to Alkalis:	Good
Resistance to Abrasion:	Good

The data above should be used as a guideline only. This information does not express or imply any guarantee, and the right is reserved to make any modifications without notice.

## SINGED POLYESTER MICRO-DENIER

Construction:	Scrim Supported Multilayered Needlefelt
Composition:	100% Polyester Felt with a micro- denier cap on a standard denier substrate
Finish:	Heatset, Singed One Side
Weight:	15.0 – 17.0 oz/sq yd
Thickness:	0.065" – 0.850"
Air Permeability:	20 – 40 CFM at ½" W.G.
Mullen Burst Strength:	400 PSI minimum
Dimensional Stability:	3% maximum shrinkage at 300° F. for 2 hours
Temperature Resistance	
Continuous:	275°F
Peaks:	300°F
Resistance to Acids:	Fair
Resistance to Alkalis:	Good
Resistance to Abrasion:	Good

The data above should be used as a guideline only. This information does not express or imply any guarantee, and the right is reserved to make any modifications without notice.

# POLYPROPYLENE

Construction:	Unsupported Needlefelt
Composition:	100% Polypropylene
Finish:	Heat Set, Plain Finish
Weight:	15.00 – 17.00 oz/sq yd
Thickness:	0.0800" – 0.1000"
Air Permeability:	20 – 40 CFM at ½" W.G.
Mullen Burst Strength	500 PSI minimum
Dimensional Stability:	3% maximum lineal shrinkage at 220°F for 2 hours
Temperature Resistance	
Continuous:	180°F
Peaks:	190°F
Resistance to Acids:	Excellent
Resistance to Alkalis:	Excellent
Resistance to Abrasion:	Good

The data above should be used as a guideline only. This information does not express or imply any guarantee, and the right is reserved to make any modifications without notice.

## **SINGED HOMOPOLYMER ACRYLIC**

Construction:	Scrim Supported Needlefelt
Composition:	100% Dolanit HomopolymerAcrylic on a Spun Dolanit Acrylic Scrim
Finish:	Heat Set, Plain Finish
Weight:	15.0 – 17.0 oz/sq yd
Thickness:	0.075" – 0.095"
Air Permeability:	25 – 45 CFM at ½" W.G.
Mullen Burst Strength	400 PSI minimum
Dimensional Stability:	3% maximum lineal shrinkage at 300°F. for 2 hours
Temperature Resistance	
Continuous:	260°F
Peaks:	300°F
Resistance to Acids:	Fair
Resistance to Alkalis:	Good
Resistance to Abrasion:	Excellent

The data above should be used as a guideline only. This information does not express or imply any guarantee, and the right is reserved to make any modifications without notice.

## SINGED HOMOPOLYMER ACRYLIC MICRO-DENIER

Construction:	Scrim Supported Multilayered Needlefelt
Composition:	100% Dolanit HomopolymerAcrylic on a Spun Dolanit Acrylic Scrim with a micro-denier cap on a standard denier substrate
Finish:	Heat Set, Plain Finish
Weight:	15.0 – 17.0 oz/sq yd
Thickness:	0.075" – 0.095"
Air Permeability:	25 – 45 CFM at ½" W.G.
Mullen Burst Strength	400 PSI minimum
Dimensional Stability:	3% maximum lineal shrinkage at 300°F. for 2 hours
Temperature Resistance	
Continuous:	260°F
Peaks:	300°F
Resistance to Acids:	Fair
Resistance to Alkalis:	Good
Resistance to Abrasion:	Excellent

The data above should be used as a guideline only. This information does not express or imply any guarantee, and the right is reserved to make any modifications without notice.

## SINGED ARAMID (NOMEX)

Construction:	Unsupported Needlefelt
Composition:	100% Aramid (Nomex) Fiber
Finish:	Heat Set, Singed One Side
Weight:	13.00 – 15.00 oz/sq yd
Thickness:	0.0700" – 0.9000"
Air Permeability:	20 – 40 CFM at ½" W.G.
Mullen Burst Strength	450 PSI minimum
Dimensional Stability:	3% maximum lineal shrinkage at 450°F for 2 hours
Temperature Resistance	
Continuous:	375°F
Peaks:	465°F
Resistance to Acids:	Fair
Resistance to Alkalis:	Good
Resistance to Abrasion:	Excellent

The data above should be used as a guideline only. This information does not express or imply any guarantee, and the right is reserved to make any modifications without notice.

## SINGED ARAMID (NOMEX) MICRO-DENIER

Construction:	Scrim Supported Multilayered Needlefelt
Composition:	100% Aramid (Nomex) Fiber with a micro-denier cap on a standard denier substrate
Finish:	Heat Set, Singed One Side
Weight:	13.00 – 15.00 oz/sq yd
Thickness:	0.0700" – 0.9000"
Air Permeability:	20 – 40 CFM at ½" W.G.
Mullen Burst Strength	450 PSI minimum
Dimensional Stability:	3% maximum lineal shrinkage at 450°F for 2 hours
Temperature Resistance	
Continuous:	375°F
Peaks:	465°F
Resistance to Acids:	Fair
Resistance to Alkalis:	Good
Resistance to Abrasion:	Excellent

The data above should be used as a guideline only. This information does not express or imply any guarantee, and the right is reserved to make any modifications without notice.

## SINGED PPS (RYTON)

Construction:	Unsupported Needlefelt
Composition:	100% PPS (Ryton) Felt
Finish:	Heatset, singed one side
Weight:	15.0 – 17.0 oz/sq yd
Thickness:	0.065" – 0.085"
Air Permeability:	20 – 40 CFM at ½" W.G.
Mullen Burst Strength	400 PSI minimum
Dimensional Stability:	2% maximum linear shrinkage at 400°F. for 2 hours
Temperature Resistance	
Continuous:	375°F
Peaks:	450°F
Resistance to Acids:	Excellent
Resistance to Alkalis:	Excellent
Resistance to Abrasion:	Good

The data above should be used as a guideline only. This information does not express or imply any guarantee, and the right is reserved to make any modifications without notice.

## SINGED PPS (RYTON) MICRO-DENIER

Construction:	Scrim Supported Multilayered Needlefelt
Composition:	100% PPS (Ryton) Felt with a micro-denier cap on a standard denier substrate
Finish:	Heatset, singed one side
Weight:	15.0 – 17.0 oz/sq yd
Thickness:	0.065" – 0.085"
Air Permeability:	20 – 40 CFM at ½" W.G.
Mullen Burst Strength	400 PSI minimum
Dimensional Stability:	2% maximum lineal shrinkage at 400°F. for 2 hours
Temperature Resistance	
Continuous:	375°F
Peaks:	450°F
Resistance to Acids:	Excellent
Resistance to Alkalis:	Excellent
Resistance to Abrasion:	Good

The data above should be used as a guideline only. This information does not express or imply any guarantee, and the right is reserved to make any modifications without notice.

## **SINGED P84**

Construction:	Unsupported Needlefelt
Composition:	100% P84 Felt
Finish:	Heat Set, Singed One Side
Weight:	13.00 – 15.00 oz/sq yd
Thickness:	0.0700" – 0.9000"
Air Permeability:	25 – 45 CFM at ½" W.G.
Mullen Burst Strength	350 PSI minimum
Dimensional Stability:	2% maximum lineal shrinkage at 500°F. for 2 hours
Temperature Resistance	
Continuous:	460°F
Peaks:	500°F
Resistance to Acids:	Excellent
Resistance to Alkalis:	Fair
Resistance to Abrasion:	Good

The data above should be used as a guideline only. This information does not express or imply any guarantee, and the right is reserved to make any modifications without notice.

## SINGED P84 MICRO-DENIER

Construction:	Scrim Supported Multilayered Needlefelt
Composition:	100% P84 Felt with a micro-denier cap on a standard denier substrate
Finish:	Heat Set, Singed One Side
Weight:	13.00 – 15.00 oz/sq yd
Thickness:	0.0700" – 0.9000"
Air Permeability:	25 – 45 CFM at ½" W.G.
Mullen Burst Strength	350 PSI minimum
Dimensional Stability:	2% maximum lineal shrinkage at 500°F. for 2 hours
Temperature Resistance	
Continuous:	460°F
Peaks:	500°F
Resistance to Acids:	Excellent
Resistance to Alkalis:	Fair
Resistance to Abrasion:	Good

The data above should be used as a guideline only. This information does not express or imply any guarantee, and the right is reserved to make any modifications without notice.

## **PTFE (TELFON)**

Construction:	Scrim-Supported Needlefelt
Composition:	100% white PTFE (Teflon) Felt
Finish:	Heatset
Weight:	19.2-22.3 oz/sq yd
Thickness:	0.035" -0.55"
Air Permeability:	20 – 40 CFM at ½" W.G.
Mullen Burst Strength:	300 PSI minimum
Dimensional Stability:	3% maximum shrinkage at 500° F. for 2 hours
Temperature Resistance	
Continuous:	500°F
Peaks:	550°F
Resistance to Acids:	Excellent
Resistance to Alkalis:	Excellent
Resistance to Abrasion:	Poor

The data above should be used as a guideline only. This information does not express or imply any guarantee, and the right is reserved to make any modifications without notice.

**APPENDIX D**  
**BACT Guidelines 1.6.7 & 1.6.8**

San Joaquin Valley  
Unified Air Pollution Control District

**Best Available Control Technology (BACT) Guideline 1.6.7\***

Last Update: 1/27/1994

**Pistachio Roasting Operation**

<b>Pollutant</b>	<b>Achieved in Practice or contained in the SIP</b>	<b>Technologically Feasible</b>	<b>Alternate Basic Equipment</b>
NOx	Natural gas fuel		
PM10	Fabric Filter Baghouse	After burner with 0.3 sec retention time @ 1400 F	
SOx	Natural gas fuel		
VOC	Natural gas 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 - Permit Specific BACT Determinations on Next Page(s)**

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 - Permit Specific BACT Determinations on Next Page(s)**

## APPENDIX E

### Net Change in Quarterly Emissions

#### Quarterly Net Emissions Change (QNEC)

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

QNEC = PE2 - BE, where:

- QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
- PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.
- BE = Baseline Emissions (per Rule 2201) for each emissions unit, lb/qtr.

Using the emission calculations from this evaluation, PE2<sub>quarterly</sub> and BE<sub>quarterly</sub> can be calculated as follows:

PE1 = 10,400 lb-NOx/yr  
PE2 = 10,400 lb-NOx/yr

PE1 = 356 lb-SOx/yr  
PE2 = 356 lb-SOx/yr

PE1 = 1,138 lb-PM10/yr  
PE2 = 1,138 lb-PM10/yr

PE1 = 2,625 lb-CO/yr  
PE2 = 2,625 lb-CO/yr

PE1 = 475 lb-VOC/yr  
PE2 = 475 lb-VOC/yr

Quarterly Emissions Change = (PE2 – PE1) ÷ (4 quarters/yr) [for all pollutants]  
= 0 lb/quarter

Pollutant	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
NO <sub>x</sub>	0	0	0	0
SO <sub>x</sub>	0	0	0	0
PM <sub>10</sub>	0	0	0	0
CO	0	0	0	0
VOC	0	0	0	0

**APPENDIX F**  
**Title V Modification – Compliance Certification Form**

**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

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

**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

11/17/09  
\_\_\_\_\_  
Date

Dave Szefflin  
\_\_\_\_\_  
Name of Responsible Official (please print)

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

Replace aspirators and filter socks in Building 19 with fabric collectors.

**NOTICE OF PRELIMINARY DECISION  
FOR THE ISSUANCE OF AUTHORITY TO CONSTRUCT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed modification of Paramount Farms for its pistachio nut finishing operation located on Highway 33, approximately four miles north of Blackwell's Corner, in Kern County, California. The applicant is proposing to replace the spun polyester bags serving the pistachio nut finishing operations aspirators with fabric filters.

The District's analysis of the legal and factual basis for this proposed action, project #S-1095418, is available for public inspection at 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. Leonard Scandura, Permit Services Manager, at (661) 392-5500. 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.