San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

SEP 13 2010

Glenn Sizemore
Air Products Manufacturing Corp.
1010 Zephyr St.
Stockton, CA 95306

Re: Proposed Authority to Construct / Certificate of Conformity (Minor Mod)
District Facility # N-802
Project # N-1103053

Dear Mr. Sizemore:

Enclosed for your review is the District's analysis of your application for Authority to Construct for the facility identified above. You have requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The applicant proposed to increase the allowable quantity of biomass fuel received from 300 ton/day to 450 ton/day. The applicant has requested that this ATC be processed as though the biomass fuel receiving operation were a new unit rather than as a modification of an existing unit.

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. Rupi Gill, Permit Services Manager, at (209) 557-6400.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

DW: FDM/dg

Enclosures

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
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Central Region (Main Office)
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AIR POLLUTION CONTROL DISTRICT

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SEP 13 2010

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

Re: **Proposed Authority to Construct / Certificate of Conformity (Minor Mod)**
District Facility # N-802
Project # N-1103053

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authority to Construct for Air Products Manufacturing Corp., located at 1010 Zephyr St., Stockton, CA 95306, which has been issued a Title V permit. Air Products Manufacturing Corp. is requesting that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The applicant proposed to increase the allowable quantity of biomass fuel received from 300 ton/day to 450 ton/day. The applicant has requested that this ATC be processed as though the biomass fuel receiving operation were a new unit rather than as a modification of an existing unit.

Enclosed is the engineering evaluation of this application, a copy of the current Title V permit, and proposed Authority to Construct # N-802-19-2 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. Rupi Gill, Permit Services Manager, at (209) 557-6400.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

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San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Modification to a Biomass Fuel Receiving System

Facility Name:	Air Products Manufacturing Corp.	Date:	August 26, 2010
Mailing Address:	1010 Zephyr St. Stockton, CA 95306	Engineer:	Frank DeMaris
		Lead Engineer:	Nick Peirce
Contact Person:	Glenn Sizemore		
Telephone:	(209) 892-0391 x116		
Fax:	(209) 983-1719		
E-Mail:	sizemoregt@airproducts.com		
Application #:	N-802-19-2		
Project #:	N-1103053		
Deemed Complete:	July 29, 2010		

I. Proposal

Air Products Manufacturing Corp. (APMC) has applied for an Authority to Construct (ATC) permit allowing a modification to their existing biomass fuel receiving system. The modification will increase the permissible quantity of fuel received from 300 ton/day to 450 ton/day. No additional equipment is required to enable the operation to handle the increase. The biomass fuel receiving system is currently operating under the temporary operating authority of ATC N-802-19-0, and APMC submitted the required Title V minor modification application on February 19, 2010 prior to commencing operation.

APM received its Title V operating permit on April 28, 2000. This modification can be classified as a Title V minor modification pursuant to Rule 2520, Section 3.20, and can be processed with a Certificate of Conformity (COC). Since APMC 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 ATC. APMC must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC issued with this project prior to commencing operation under the new ATC. The following conditions will be included on the ATC to ensure compliance with these requirements:

- *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]*

- *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]*

It is noted that the minor modification to incorporate the new biomass fuel receiving operation into the Title V permit has been received, but the District has not taken final action on this application yet. Since the District has a statutory obligation to take final action on an ATC application within 180 days of receipt of a complete application, whereas no similar obligation exists for Title V permit applications, APMC has requested that this proposal entirely replace the existing ATC. This proposal will be evaluated as an entirely new emissions unit. The following condition will be included on the ATC to ensure the validity of this assumption:

- *Upon implementation of this ATC, Authorities to Construct N-802-19-0 and N-802-19-1 shall be cancelled. [District Rule 2201]*

II. Rules

Rule 2201 New and Modified Stationary Source Review Rule (12/18/08)
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)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notification
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. Location

This facility is located at 1010 Zephyr St. in Stockton, California. The District has determined that this facility is not located within 1,000 feet of the outer boundary of the nearest K-12 school. Therefore, the school notice requirements of California Health & Safety Code 42301.6 do not apply to this proposal.

IV. Process Description

The biomass fuel receiving system consists of a truck unloading dock with three bays. Each bay is equipped with an inflatable shelter that seals to a truck trailer and provides total enclosure of the fuel receiving operation. The biomass is unloaded from the truck trailers by a walking floor mechanism to a conveying system served by the Sly model STJ baghouse. This conveying system delivers the biomass to conveyor belt #3, operating under Permit to Operate (PTO) N-802-6, where the biomass is blended with other fuels for delivery to the combustor.

V. Equipment Listing

Pre-Project Equipment Description:
Since this application is being processed as a new unit there is no pre-project equipment available to describe.

Post-Project Equipment Description:
N-802-19-2: BIOMASS FUEL RECEIVING AND HANDLING OPERATION, INCLUDING THREE TRAILER RECEIVING BAYS AND BIOMASS CONVEYOR #9, ALL SERVED BY A SLY MODEL STJ-85-10 DUST COLLECTOR

VI. Emission Control Technology Evaluation

This operation will result in the emission of particulate matter with an aerodynamic diameter of 10 µm or less (PM_{10}). The building housing the biomass fuel receiving operation and biomass conveyor will be ventilated to a bag house, where PM_{10} will be strained out of the air stream by filter bags. When the filter bags of encrusted with PM_{10}, a pulse jet system will shake the accumulated dust free into the collection bin.

Bag houses are commonly evaluated on the basis of the air-to-cloth ratio as follows:

$AC = (3{,}000\ ft^3/min) \div (600\ ft^2) = 5.0\ ft/min$

As described in the Air Pollution Engineering Manual, pulse jet-style fabric filters for sawdust commonly have air-to-cloth ratios of 12.0 or less, while for fly ash the ratio is 5.0 or less. As shown above, the air-to-cloth ratio is 5.0 ft/min, so the baghouse is expected to be effective in controlling PM_{10} emissions from the biomass fuel receiving operation.

VII. General Calculations

A. Assumptions

- Quantity of fuel received post-project is 450 ton/day
- PM_{10} and $PM_{2.5}$ are the only pollutants emitted by this process
- Biomass fuel receiving operates 24 hr/day and 365 day/yr
- Other assumptions will be stated as they are made

B. Emission Factors

Project N-1093634 used an emission factor of 0.00067 lb-PM_{10}/ton of biomass fuel received in evaluating the previous ATC application for this process. This emission factor was obtained from the permit for an existing biomass receiving operation served by water sprays at Thermal Energy Development Partnership LP (PTO N-1026-5-3). Since the total enclosure ventilated to a baghouse will be even more effective than water sprays for controlling PM_{10} emissions, this emission factor is will result in conservative emission calculations for the proposed operation.

C. Emission Calculations

1. Pre-Project Potential to Emit (PE1)

Since the biomass receiving operation is being evaluated as a new permit unit, PE1 is zero for all pollutants.

2. Post-Project Potential to Emit (PE2)

PE2 is calculated from the emission factor and the daily fuel receiving limit.

PE2 = (0.00067 lb-PM_{10}/ton) x (450 ton/day) = 0.3 lb-PM_{10}/day
PE2 = (0.3 lb-PM_{10}/day) x (365 day/yr) = 110 lb/yr

3. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's Permit Administration System emissions profile screen. Detailed QNEC calculations are included in Appendix C.

D. Stationary Source Calculations

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

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (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 that have occurred at the source, and which have not been used on-site.

APMC currently holds the following finalized but unimplemented ATCs: N-802-1-17, '-9-11, and '-19-0. The current proposal will replace N-802-19-0, so that ATC will contribute to SSPE1 (using PE2 as calculated in project N-1093634) but not SSPE2. ATC N-802-1-17 and '-9-11 were issued as part of project N-1092178, but that project has the net effect of reducing stationary source emissions and will be ignored for SSPE calculations. SSPE1 is taken from project N-1083224 with the addition of ATC N-802-19-0, and is summarized in Table 1:

Table 1: SSPE1 (lb/yr)

Unit	NO_x	SO_x	PM_{10}	CO	VOC
From N-1083224	219,730	311,412	64,738	199,994	9,789
N-802-19-0	0	0	37	0	0
SSPE1	219,730	311,412	64,775	199,994	9,789

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

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) 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 that have occurred at the source, and which have not been used on-site.

Table 2: SSPE2 (lb/yr)					
	NO_x	SO_x	PM_{10}	CO	VOC
N-802-19-2	0	0	110	0	0
Minus N-802-19-0	0	0	37	0	0
Plus SSPE1	219,730	311,412	64,775	199,994	9,789
SSPE2	219,730	311,412	64,848	199,994	9,789

3. Major Source Determination

Pursuant to Section 3.23 of District Rule 2201, a Major Source is a stationary source with post-project emissions, or SSPE2 equal to or exceeding one or more of the following threshold values. However, Section 3.23.2 states, "for the purposes of determining major source status, the SSPE2 shall not include the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site."

Table 3: Major Source Determination (lb/yr)					
	NO_x	SO_x	PM_{10}	CO	VOC
SSPE2	219,730	311,412	64,848	199,994	9,789
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	Yes	Yes	No	No	No

As shown in Table 3, APMC is a major source for NO_x and SO_x emissions.

Effective July 15, 2008 the District was required to implement the requirements of Title 40, Code of Federal Regulations, Part 51.165 (40 CFR 51.165) and the EPA Emission Offset Interpretive Ruling (Part 51 – Appendix S) for $PM_{2.5}$. Under these requirements a major source of $PM_{2.5}$ is defined as one with the potential to emit 100 ton/yr (200,000 lb/yr) or more of $PM_{2.5}$. Since $PM_{2.5}$ is a subset of PM_{10}, it is evident that SSPE2 for $PM_{2.5}$ emissions is less than or equal to 64,848 lb/yr; since the major source threshold for $PM_{2.5}$ is 200,000 lb/yr this facility is not a major source for $PM_{2.5}$. No further discussion of $PM_{2.5}$ emissions is required.

4. Baseline Emissions

Pursuant to District Rule 2201, Section 3.7, BE for any pollutant is equal to the pre-project potential to emit for any emissions unit located at a non-major source. Since the biomass fuel receiving operation is being evaluated as a new permit unit, PE1 is zero for all pollutants.

5. SB288 Major Modification

An SB288 Major Modification is defined in 40 CFR Part 51.165 (in effect on December 19, 2002) 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.*" As shown in Section VII.D.3, this facility is not a major source for PM_{10}, so this proposal cannot be a major modification. No further discussion is required.

6. Federal Major Modification

As shown in Section VII.D.3, this facility is not a major source for PM_{10}. Therefore, in accordance with District Rule 2201, Section 3.17, this project does not constitute a Federal Major Modification. 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 for the following[1]:

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.

[1] 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.

As shown in Section I, this proposal is being evaluated as a new unit, so there are no modifications or relocations of existing units involved. As shown in Section VII.D.3, APMC is not a major source for PM_{10} and cannot undergo a major modification for PM_{10}. As shown in Section VII.C.2, PE2 for the entire biomass fuel receiving operation is 0.3 lb/day, which is less than the BACT trigger threshold of 2.0 lb/day. The BACT requirements are not triggered for this proposal. No further discussion is required.

B. Offsets

1. Offset Applicability

Pursuant to Section 4.5.3 of the rule, emission offsets are required if SSPE2 equals or exceeds the following emission offset threshold levels for any one affected pollutant:

Table 4: Emission Offset Thresholds (lb/yr)

	NO_x	SO_x	PM_{10}	CO	VOC
SSPE1	219,730	311,412	64,775	199,994	9,789
SSPE2	219,730	311,412	64,848	199,994	9,789
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Offsets Triggered?	Yes	Yes	Yes	No	No

2. Quantity of Offsets Required

As shown in Table 4 above, the offset requirements of the rule are triggered for NO_x, SO_x, and PM_{10}. The only pollutant emitted by the biomass fuel receiving operation is PM_{10}, so NO_x and SO_x will not be further addressed.

This proposal results in an increase in permitted emissions of 0.3 lb-PM_{10}/day. Pursuant to District Policy APR-1130, *Increases in Maximum Daily Permitted Emissions of Less Than or Equal to 0.5 lb/day*, emissions increases of less than or equal to 0.5 lb/day are considered to be rounded to 0.0 lb/day for the purpose of triggering the requirements of Rule 2201. This includes the offset requirements. Therefore, the quantity of offsets required is 0. No further discussion is required.

C. Public Notice

1. Applicability

Pursuant to Section 5.4 of the rule, public notification and publication are required for the following types of applications:

5.4.1 New Major Sources, Federal Major Modifications, and SB288 Major Modifications

As shown in Section I, APMC is not a new facility and therefore is not a new major source. As shown in Sections VII.D.5 and 6, this proposal is neither an SB288 major modification nor a federal major modification. Public notice is not required under this provision.

5.4.2 Applications which include a new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one affected pollutant

As shown in Section VII.C.2, PE2 for this new permit unit is 0.3 lb-PM_{10}/day, less than the public notice threshold of 100 lb/day. Public notice is not required under this provision.

5.4.3 Modifications that increase SSPE1 from a level below the emissions offset threshold level to a level exceeding the emissions offset threshold level for one or more pollutants

As shown in Table 4 above, while SSPE2 exceeds the emissions offset threshold level for NO_x, SO_x, and PM_{10}, SSPE1 also exceeds the threshold for those pollutants. Public notice is not required under this provision.

5.4.4 New stationary sources with SSPE2 exceeding the emissions offset threshold level for one or more pollutants

As shown in Section I, APMC is an existing facility rather than a new stationary source. Public notice is not required under this provision.

5.4.5 Any permitting action resulting in a Stationary Source Project Increase in Permitted Emissions (SSIPE) exceeding 20,000 pounds per year for any one pollutant

Table 5: SSIPE (lb/yr)

	NO_x	SO_x	PM_{10}	CO	VOC
SSPE2	219,730	311,412	64,848	199,994	9,789
SSPE1	219,730	311,412	64,775	199,994	9,789
SSIPE = SSPE2 – SSPE1	0	0	73	0	0
SSIPE > 20,000?	No	No	No	No	No

As shown in Table 5, SSIPE does not exceed 20,000 lb/yr for any pollutant. Public notice is not required under this provision.

2. Public Notice Action

Public notice is not required under any provision of Rule 2201, Section 5.4. No further discussion is required.

D. Daily Emission Limitation (DEL)

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO, and enforceable, in a practical manner, on a daily basis. DELs are also required to enforce the applicability of BACT. The following conditions will be included on the ATC:

- *The quantity of biomass material received shall not exceed 450 tons in any one day. [District Rule 2201]*

- *PM10 emissions shall not exceed 0.00067 lb/ton of biomass material received. [District Rule 2201]*

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR-1705, *Source Testing Frequency*, source testing to demonstrate compliance with an emission limit can be required either by an applicable prohibitory rule or by policy. Since no applicable prohibitory rule requires source testing for this biomass fuel receiving operation, APR-1705 is the governing document. However, APR-1705 specifies that an operation served by a baghouse requires initial source testing only if it has the potential to emit more than 30 lb/day. Since this operation has the potential to emit only 0.3 lb/day, source testing is not required under APR-1705. No further discussion is required.

2. Monitoring

The baghouse will be equipped with a gauge showing the pressure differential across the bags. This gauge must be monitored to help ensure proper ongoing operation of the baghouse. The following condition will be included on the ATC to ensure compliance:

- *Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201]*

3. Record Keeping

Records must be kept to document ongoing compliance with all applicable permit conditions. The following conditions will be included on the ATC to ensure all necessary records are kept:

- *Daily records of the quantity of biomass material received, in tons, shall be maintained. [District Rule 2201]*
- *Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201]*
- *Records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 2201]*

4. Reporting

No reporting is required to ensure compliance with Rule 2201.

5. Installation, Operation, and Maintenance

Pursuant to Sections 5.6.2 and 5.6.3 of the rule, an ATC will include conditions to ensure that the new or modified source is built according to the specifications and plans included in the application, or which are necessary to assure construction and operation in the manner assumed in the application review. The following conditions will be included on the ATC to ensure proper installation, operation, and maintenance:

- *Material removed from baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]*
- *Baghouse exhaust fan shall be switched on prior to receiving biomass material. [District Rule 2201]*
- *All ducting and control equipment shall be in good working order to prevent fugitive particulate emissions. [District Rule 2201]*
- *All filters shall be properly maintained and must be in place while receiving biomass material. [District Rule 2201]*
- *Replacement filters numbering at least 10% of the total number of filters in the largest baghouse using each type of filter shall be maintained on the premises. [District Rule 2201]*
- *The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]*

- *Each biomass material receiving station shall be equipped with an inflatable shelter. The inflatable shelter shall be used to totally enclose the biomass receiving operation at all times during the receiving of biomass material. [District Rule 2201]*

- *The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]*

- *The differential pressure gauge reading range shall be established per manufacturer's recommendation at time of start up inspection. [District Rule 2201]*

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit pursuant to Section 3.20 of this rule:

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
   a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
   b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

As discussed above, 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 this rule is expected. The facility may operate under the ATC upon submittal of the Title V administrative amendment application.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates by reference the NSPS presented in 40 CFR 60. However, although Subpart Da applies to the boiler operating under PTO N-802-1-15, no NSPS subpart applies to the biomass fuel receiving operation itself. No further discussion is required.

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

This rule incorporates by reference the NESHAP presented in 40 CFR 61 and 40 CFR 63. However, no NESHAP subpart applies to the biomass fuel receiving operation. No further discussion is required.

Rule 4101 Visible Emissions

This rule defines and regulates visible emissions from any source of air contaminants. The following condition will be included on the ATC to ensure compliance:

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

However, for operations served by a baghouse a visible emission limit of 20% opacity is not sufficiently stringent to ensure proper baghouse operation. Pursuant to District Policy SSP-1005, *Visible Emissions from Operations Served by Baghouses*, the following condition will be included on the ATC to ensure an acceptable visible emissions standard for the baghouse exhaust:

- *Visible emissions from the baghouse serving the biomass fuel receiving operation shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]*

Rule 4102 Nuisance

This rule prohibits the emission of air contaminants into the atmosphere that cause damage, detriment, nuisance, or annoyance to the public. The following condition will be included on the ATC to ensure compliance:

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

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR-1905, *Risk Management Policy for Permitting New and Modified Sources*, specifies that for an increase in emissions associated with a proposed new source or modification, the District must 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 or equal to one. According to the Technical Services Memo for this project (Appendix B), the total facility prioritization score including this project was less than or equal to one. Therefore, no additional analysis is required to determine the impact from this project, and no further discussion is required.

Rule 4201 Particulate Matter Concentration

This rule prohibits the emission of particulate matter at a concentration greater than 0.1 grains per cubic foot of exhaust air at dry, standard conditions (0.1 gr/dscf). The expected particulate matter concentration can be calculated as follows, taking into account the provision in Rule 2201, Section 4.11.2, that in the absence of more specific data 50% of total particulate matter is assumed to be PM_{10}:

C = (0.3 lb-PM_{10}/day) x (1 lb-PM/0.5 lb-PM_{10}) x (7,000 gr/lb) ÷ [(3,000 ft^3/min) x (1,440 min/day)]
C = 0.001 gr/dscf

Since the expected concentration of 0.001 gr/dscf is less than the rule limit of 0.1 gr/dscf, compliance with the rule is expected. The following condition will be included on the ATC to ensure compliance:

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

Rule 4202 Particulate Matter Emission Rate

This rule prohibits the emission of particulate matter in excess of specified limits based on the process weight rate. The process weight rate for the biomass fuel receiving operation is 450 ton/day, equivalent to 18.75 ton/hr. The rule limit, given in Section 4.0, for a process weight rate of 10 ton/hr is 14.97 lb-PM/hr. As shown in Section VII.C.2, the maximum daily PM_{10} emissions are 0.3 lb-PM_{10}/day, which is presumed to result in potential emissions of 0.6 lb-PM/day. Since the potential daily emissions are much less than the hourly rule limit, compliance with this rule is expected. No further discussion is required.

California Health & Safety Code 42301.6 (School Notice)

The District has determined that this facility is not located within 1,000 feet of the outer boundary of the nearest K-12 school. Therefore, the school notice requirements of CH&SC 42301.6 do not apply to this proposal. No further discussion is 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.
- 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.

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)).

Greenhouse Gas (GHG) Significance Determination

It is determined that no other agency has or will prepare an environmental review document for the project. Therefore, the District is the Lead Agency for this project. 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 concludes that the project would have a less than cumulatively significant impact on global climate change.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful COC notice period, issue Authority to Construct N-802-19-2 subject to the conditions on the draft Authority to Construct included in Appendix A.

X. Billing Information

Billing Information		
Permit Number	**Fee Schedule**	**Description**
N-802-19-2	3020-01-C	90.75 hp electric motors

Appendices
Appendix A: Draft Authority to Construct
Appendix B: Health Risk Assessment
Appendix C: QNEC Calculations

Appendix A
Draft Authority to Construct

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-802-19-2 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: AIR PRODUCTS MANUFACTURING CORPORATION
MAILING ADDRESS: 1010 ZEPHYR ST
STOCKTON, CA 95206

LOCATION: 1010 ZEPHYR ST
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:
BIOMASS FUEL RECEIVING AND HANDLING OPERATION, INCLUDING THREE TRAILER RECEIVING BAYS AND BIOMASS CONVEYOR #9, ALL SERVED BY A SLY MODEL STJ-85-10 DUST COLLECTOR

CONDITIONS

1. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
2. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. Visible emissions from the baghouse serving the biomass fuel receiving operation shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
5. Material removed from baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
6. Baghouse exhaust fan shall be switched on prior to receiving biomass material. [District Rule 2201]
7. All ducting and control equipment shall be in good working order to prevent fugitive particulate emissions. [District Rule 2201]
8. All filters shall be properly maintained and must be in place while receiving biomass material. [District Rule 2201]
9. Replacement filters numbering at least 10% of the total number of filters in the largest baghouse using each type of filter shall be maintained on the premises. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-802-19-2 : Aug 26 2010 8:54AM – DEMARISF : Joint Inspection NOT Required

10. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
11. Each biomass material receiving station shall be equipped with an inflatable shelter. The inflatable shelter shall be used to totally enclose the biomass receiving operation at all times during the receiving of biomass material. [District Rule 2201]
12. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
13. The differential pressure gauge reading range shall be established per manufacturer's recommendation at time of start up inspection. [District Rule 2201]
14. The quantity of biomass material received shall not exceed 450 tons in any one day. [District Rule 2201]
15. PM10 emissions shall not exceed 0.00067 lb/ton of biomass material received. [District Rule 2201]
16. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201]
17. Daily records of the quantity of biomass material received, in tons, shall be maintained. [District Rule 2201]
18. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201]
19. {3465} Records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 2201]
20. Upon implementation of this ATC, Authorities to Construct N-802-19-0 and N-802-19-1 shall be cancelled. [District Rule 2201]
21. {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
22. {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

Air Products Manufacturing Corporation
N-802, N-1103053

Appendix B
Health Risk Assessment Summary

San Joaquin Valley Air Pollution Control District
Risk Management Review

To:	Frank DeMaris – Permit Services
From:	Cheryl Lawler – Technical Services
Date:	August 24, 2010
Facility Name:	Air Products Manufacturing
Location:	1010 Zephyr Street, Stockton
Application #(s):	N-802-19-2
Project #:	N-1103053

A. RMR SUMMARY

RMR Summary			
Categories	**Biomass Fuel Receiving Operation (Unit 19-2)**	**Project Totals**	**Facility Totals**
Prioritization Score	**0.39***	0.39	0.45
Acute Hazard Index	N/A	N/A	N/A
Chronic Hazard Index	N/A	N/A	N/A
Maximum Individual Cancer Risk	N/A	N/A	N/A
T-BACT Required?	**No**		
Special Permit Conditions?	**No**		

* The unit passed on prioritization with a score of less than 1; therefore, no further analysis was required.

I. Project Description

Technical Services received a request on August 11, 2010, to perform a Risk Management Review for PM10 from a biomass fuel receiving operation with three truck unloading bays served by inflatable total enclosures and a baghouse.

II. Analysis

Toxic emissions from the project were calculated using PM10 rates calculated and supplied by the processing engineer, along with CARB Biomass Dust PM Species Profile #421 emission factors. 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 project were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEART's database. The prioritization score for the project was less than 1.0 (see RMR Summary Table). Therefore, no further analysis was necessary.

The following parameters were used for the review:

Analysis Parameters			
PM10 Emissions Rate (lbs/yr)	110	**Closest Receptor (m)**	19.81
		Closest Receptor Type	Business

III. Conclusion

The prioritization score for this project is not above 1.0. In accordance with the District's Risk Management Policy, the project is approved **without** Toxic Best Available Control Technology (T-BACT).

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

Appendix C
QNEC Calculations

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC is 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 for each emissions unit, lb/qtr

Using the values in Sections VII.C.2 and VII.D.4 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

$PE2_{quarterly}$ = $PE2_{annual}$ ÷ 4 quarters/year
$BE_{quarterly}$ = BE_{annual} ÷ 4 quarters/year

Quarterly Net Emissions Increase (QNEC) (lb/qtr)						
	PE2	BE	Quarter 1	Quarter 2	Quarter 3	Quarter 4
NO_X	0	0	0	0	0	0
SO_X	0	0	0	0	0	0
PM_{10}	110	0	27	27	28	28
CO	0	0	0	0	0	0
VOC	0	0	0	0	0	0