## Check Sheet

Company Name: Monsouto Chemical Conpany
Permit Number: 40 17-160477
PSD Number:
Permit Engineer:
Application:  Initial Application Cross References:  Responses  Waiver of Department Action Department Response  Other
Intent:  Intent to Issue  Notice of Intent to Issue  Technical Evaluation  BACT or LAER Determination  Unsigned Permit  Correspondence with:  EPA  Park Services  Other  Proof of Publication  Petitions - (Related to extensions, hearings, etc.)  Waiver of Department Action  Other
Final  Determination:  ☐ Final Determination  ☐ Signed Permit  ☐ BACT or LAER Determination  ☐ Other
Post Permit Correspondence:  □ Extensions/Amendments/Modifications □ Other

# BEST AVAILABLE COPY

	· ·
SENDER: Complete items 1 and 2 when additional 3 and 4.  Put your address in the "RETURN TO" Space on the rever card from being returned to you. The return receipt fee will p to and the date of delivery. For additional fees the following for fees and check boxles) for edditional service(s) reques 1.   Show to whom delivered, date, and addressee's ad (Extra charge)	rse side. Failure to do this will prevent this rovide you the name of the person delivered a services are available. Consult postmaster ted.
3. Article Addressed to: Mr. W. J. Board	4. Article Number 938, 762, 591
Monsanto Company	Type of Service:
P. O. Box 12830	Registered Insured
Pensacola, FL 32575	Express Mail COD Return Receipt for Merchandise
	Always obtain signature of addressee or agent and DATE DESCRIPED.
5. Signature - Address	8. Addressee's Address (ONO) If
x	requested and fee paid
6. Signature - Agent	(2) mg /sl
x Bob Pulmer	[3 16 ]
7. Date of Delivery	11900
PS Form 3811, Mar. 1988 * U.S.G.P.O. 1988-212-	-865 DOMESTIC RETURN RECEIPT

4

P 938 752 591

#### RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL (See Reverse)

	(		
	Sento W. J. Board,	Monsanto	
:	Street and No.		
	P.O. State and ZIP Code Pensacola, FL 32575		
	Postage	s	
	Certified Fee		
rs Form 3800, June 1985	Special Delivery Fee		
	Restricted Delivery Fee		
	Return Receipt showing to whom and Date Delivered		
	Return Receipt showing to whom, Date, and Address of Delivery		
	TOTAL Postage and Fees	S	
3800	Postmark or Date		
rs rorm	Mailed: 6-14-89 Permit: AC 17-160	0477	
<u>ب</u>			



## Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF PERMIT

Mr. W. J. Board Gen. Supt., Gov. Affairs/Environmental Health and Safety Monsanto Company Post Office Box 12830 Pensacola, Florida 32575

June 13, 1989

Enclosed is construction permit No. AC 17-160477 for Monsanto Company to construct a nylon polymer fines removal system at their chemical plant north of Pensacola, Escambia County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any party to this permit has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this permit is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.

Deputy Chief

Bureau of Air Quality Management

Copy furnished to:

E. Middleswart, NW District

B. McLeod, P.E.

#### CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on fune 14, 1989.

FILING AND ACKNOWLEDGEMENT FILED, on this date, pursuant to \$120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk Clerk

Date

#### Final Determination

Monsanto Company Escambia County Pensacola, Florida

Nylon Polymer Fines Removal System
Permit No. AC 17-160477

Florida Department of Environmental Regulation Bureau of Air Quality Management Central Air Permitting

June 6, 1989

#### Final Determination

The Technical Evaluation and Preliminary Determination for the permit to construct a nylon polymer fines removal system (AC 17-160477) at Monsanto Company's chemical plant located north of Pensacola in Escambia County, Florida, was distributed on May 3, 1989. The Notice of Proposed Agency Action was published in the Pensacola News Journal on May 9, 1989.

No comments were submitted on the Department's proposed action. The final action of the Department will be to issue the construction permit as proposed in the Technical Evaluation and Preliminary Determination.



## Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE: Monsanto Company P. O. Box 12830 Pensacola, Florida Permit Number: AC 17-160477 Expiration Date: June 1, 1991

County: Escambia

30°35'43"N Latitude/Longitude:

87°15'20"W

Nylon Polymer Fines Project:

Removal System.

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Construction of a nylon polymer fines removal system consisting of conveying and process equipment with air pollution emissions controlled by a Mikro Pul bag filter containing approximately 1300  $ft^2$  of filter area and discharging approximately 3,530 ACFM of air through a 1.0 foot diameter stack that is 60 to 80 foot in height. This system is located at the chemical plant at 3000 Old Chemstrand Road, Gonzalez, Escambia County, Florida.

The UTM coordinates of this system are Zone 16, 475.5 km E and 3384.6 km N.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

- Application received February 8, 1989.
- DER letter dated March 7, 1989 2.
- 3. Monsanto Company's letter dated March 17, 1989.

Permit No. AC 17-160477 Expiration Date: June 1, 1991

#### GENERAL CONDITIONS:

- 1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.
- 2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- 3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws of regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- 4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.
- 5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

Permit No. AC 17-160477 Expiration Date: June 1, 1991

#### GENERAL CONDITIONS:

- 6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- 7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:
  - a. Having access to and copying any records that must be kept under the conditions of the permit;
  - b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
  - c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

- 8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:
  - a. a description of and cause of non-compliance; and
  - b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

Permit No. AC 17-160477 Expiration Date: June 1, 1991

#### GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

- 9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.
- 10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- 11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- 12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.
- 13. This permit also constitutes:
  - ( ) Determination of Best Available Control Technology (BACT)
  - ( ) Determination of Prevention of Significant Deterioration (PSD)
  - ( ) Compliance with New Source Performance Standards
- 14. The permittee shall comply with the following monitoring and record keeping requirements:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

Page 4 of 6

11.5

Permit No. AC 17-160477
Expiration Date: June 1, 1991

#### GENERAL CONDITIONS:

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
  - the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the date(s) analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.
- 15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

#### SPECIFIC CONDITIONS:

- 1. The fines removal system shall not process more 6,6 nylon than is listed in confidential attachment No. 1 of the permittee's March 17, 1989, letter. This attachment is not published under the provisions of Section 403.111, F.S., but is maintained on file by the Department as a legal condition of this permit. The permittee shall maintain records that can be used to determine compliance with this condition.
- 2. Particulate matter emissions from the bag filter shall not exceed 0.03 grains/dscf and 0.91 lbs/hr. This source shall be tested for particulate matter emissions by EPA Methods 1, 2, 3, 4, and 5 if visible emissions, as determined by Method 9, exceed 5% opacity. Specifications for the reference test methods are listed in F.A.C. 17-2.700(6)(b), December 5, 1988.

Permit No. AC 17-160477 Expiration Date: June 1, 1991

#### SPECIFIC CONDITIONS:

- 3. Reasonable precautions during the periodic manual unloading of fines from the bag filter shall be used by the permittee. These precautions shall include minimizing the free fall distance from the filter to the drum, using a sock or other means to prevent the fines from being captured by the wind, and not unloading fines during periods when the filter is exposed to high wind. The drum shall be sealed before hauling the fines away from the process.
- 4. The process may operate continuously, 8760 hrs/yr.
- 5. The nylon polymer fines removal system shall not allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
- 6. The permittee shall notify the Department's Northwest District office at least 15 days prior to any compliance test.
- 7. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the BAQM prior to 60 days before the expiration of the permit (F.A.C. 17-4.090).
- 8. An application for an operation permit must be submitted to the Department's Northwest District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. 17-4.220).

Issued this \_\_\_\_\_ day of \_\_\_\_\_, 1989

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

Dale Twachtmann, Secretary



# State of Florida DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

# Interoffice Memorandum

TO: Dale Twachtmann

FROM: Steve Smallwood

DATE: June 6, 1989

SUBJ: Approval of Construction Permit No. AC 17-160477

Monsanto Company

JUN 7 1989

Office of the Secretary

Attached for your approval and signature is a permit prepared by Central Air Permitting for the above mentioned company to construct a nylon polymer fines removal system at their chemical plant north of Pensacola, Escambia County, Florida.

No comments were received during the public notice period.

Day 90, after which this permit will be issued by default, is July 16, 1989.

I recommend your approval and signature.

SS/WH/s

Express Mail B33 8 027 53 Pensacola, EL

file copy

# Monsanto

MONSANTO CHEMICAL COMPANY

P. O. Box 12830

Pensacola, Florida 32575-2830

Phone: (904) 968-7000

MAY 19 1989

ULK BAUM

VIA OVERNIGHT MAIL

May 18, 1989

Mr. C. H. Fancy, P.E. Bureau of Air Quality Management Department of Environmental Regulation 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Dear Mr. Fancy:

Attached is proof of publication of the public notice for Construction Permit AC17-160477, Nylon Polymer Fines Removal System.

Please issue this construction permit as soon as possible.

Sincerely,

Bruce P. McLeod

Senior Specialist

Environmental Control

copied: It. Hanks

# RECEIVED

MAY 19 1989

### ENVIRONMENTAL CONTROL



PENSACOLA, ESCAMBIA COUNGO FLORIDA

State of Florida, County of Escambia. ENVIRONMENTAL CONTROL

Before the undersigned authority personally appeared

J. Diane Deal

who on oath says that she is Legal Advertising Supervisor of the Pensacola News Journal, a daily newspaper published at Pensacola in Escambia County, Florida; with general circulation in Escambia, Santa Rosa, Okaloosa and Walton Counties that the attached copy of advertisement, being a NOTICE in the matter of

Department of Environ	mental Regulation
<i>y</i>	Court,
was published in said newspaper in the	issues of
May 9, 1989	

Affiant further say that the said The Pensacola News Journal is a newspaper published at Pensacola, in said Escambia County, Florida, and that the said newspaper has heretofore been continuously published in said Escambia County, Florida, each day and has been entered as second class mail matter at the post office in Pensacola, in said Escambia County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Sworn to and subscribed before me this day of A.D., 18 Hours NOTARY PUBLIC.

LEGAL NOTICE

State of Florida
Department of
Environmental
Regulation
Notice of
Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to Monsanto Company, Post Office Box 12830, Pensacola, Florida, 32575, to construct a nylon polymer fines removal system at the chemical plant at 3000 Old Chemstrand Road, Gonzalez, Escambia County, Florida. The bag filter used to control this process will emit 0.9 bs/hr (3.9 TPY) particulate matter. These emissions will not cause a violation of any ambient air quality standard. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and wiephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action:

My Commission Expires October 26, 1991

(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modifi-

quire reversal or modifi-

quire reversal or modifi-cation of the Depart-ment's action or proposed action; and (g) A statement of the relief sought by peti-tioner, stating precisely the action petitioner wants the Department to take with respect to the take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearthe administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to partment with regard to partment with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice. publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer publication of this notice the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays at:

Department of Environmental mental
Regulation
Bureau of Air Quality
Management
2600 Blair Stone Road
Tallahassee, Florida
32399-2400

Dept. of Environmental Regulation Northwest District 160 Governmental Center Pensacola, 32501-5794 Florida

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments malled within 14 days of the publication of this notice will be considered in the Department's final determination. determination.

Legal No. 36089 1T May 9, 1989

SENDER: Complete items 1 and 2 when additional 3 and 4.  Put your address in the "RETURN TO" Space on the reverse from being returned to you. The return receipt fee will to and the date of delivery. For additional fees the following for fees and check box(es) for additional service(s) required. Show to whom delivered, date, and addressee's (Extra charge)	verse side. Failure to do this will prevent this I provide you the name of the person delivered ng services are available. Consult postmaster ested.
3. Article Addressed to:	4. Article Number
Mr. W. J. Board	P 274 010 393
Gen. Supt., Gov. Affairs/ Env. Health & Safety Monsanto Company P. O. Box 12830 Pensacola, Florida 32575	Type of Service:  Registered Insured Certified COD Express Mail Return Receipt for Merchandise  Always obtain signature of addressee or agent and DATE DEVIVERED.
5. Signature — Address  X  6. Signature — Agent  X  Date of Delivery	8. Adolessee Address NNLY if requested and support S
PS Form 3811, Mar. 1988 * U.S.G.P.O. 1988-21	2-865 DOMESTIC RETURN RECEIPT

### P 274 010 393

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to  Mr. W. J. Board, Monsanto  Street and No. P. O. Box 12830	
P.O. State and ZIP Code Pensacola, FL 3257.	5
Postage	\$
Certified Fee	
Special Delivery Fee	. l
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom.	
TOTAL Postage and Fees	\$
Postmark or Date	
Mailed: 5-3-89 Permit: AC 17-160477	
֡֡֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜	Mr. W. J. Board, Mc Street and No. P. O. Box 12830  P.O. State and ZIP Code Pensacola, FL 3257.  Postage  Certified Fee  Special Delivery Fee  Restricted Delivery Fee  Return Receipt showing to whom and Date Delivered



## Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

May 3, 1989

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. W. J. Board Gen. Supt., Gov. Affairs/Environmental Health and Safety Monsanto Company P. O. Box 12830 Pensacola, Florida 32575

Dear Mr. Board:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit to construct a nylon polymer fines removal system.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Bill Thomas of the Bureau of Air Quality Management.

Sincerely,

C. H. Fancy, P.E.

Deputy Chief

Bureau of Air Quality Management

CHF/WH/plm

Attachments

cc: E. Middleswart, NW Dist.

B. McLeod, P.E.

## BEFORE THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of Application for Permit by:

Monsanto Company P. O. Box 12830 Pensacola, FL 32575 DER File No. AC 17-160477

#### INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Monsanto Company, applied on February 8, 1989, to the Department of Environmental Regulation for a permit to construct a nylon polymer fines removal system at the chemical plant located at 3000 Old Chemstrand Road, Gonzalez, Escambia County, Florida.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit is required for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area For the purpose of this rule, "publication in affected. newspaper of general circulation in the area affected" publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to The applicant shall provide proof of publication to take place. the Department, at the address specified within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. a petition within this time to file period constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the applicant have the right to petition to become a party to the The petition must conform proceeding. to the requirements days specified above and filed (received) within 14 be publication of this notice in the Office in General Counsel at the Failure to petition within the above address of the Department. allowed time frame constitutes a waiver of any right such person request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E. Deputy Chief

Bureau of Air Quality

Management

Copies furnished to:

Ed Middleswart, NW Dist. Bruce McLeod, P.E.

#### CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on  $\frac{3,1989}{}$ .

FILING AND ACKNOWLEDGEMENT FILED, on this date, pursuant to \$120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Martha Mise May 3, 1989

# State of Florida Department of Environmental Regulation Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to Monsanto Company, Post Office Box 12830, Pensacola, Florida, 32575, to construct a nylon polymer fines removal system at the chemical plant at 3000 Old Chemstrand Road, Gonzalez, Escambia County, Florida. The bag filter used to control this process will emit 0.9 lbs/hr (3.9 TPY) particulate matter. These emissions will not cause a violation of any ambient air quality standard. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any:
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action:
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation Bureau of Air Quality Management 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Dept. of Environmental Regulation Northwest District 160 Governmental Center Pensacola, Florida 32501-5794

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

# Technical Evaluation and Preliminary Determination

Monsanto Company Escambia County Pensacola, Florida

Nylon Polymer Fines Removal System

File No. AC 17-160477

Florida Department of Environmental Regulation Bureau of Air Quality Management Central Air Permitting

#### General Information

#### A. Applicant

Monsanto Company Post Office Box 12830 Pensacola, Florida 32575

#### B. Request

On February 8, 1989, Monsanto applied for a permit to construct a nylon polymer fines removal system (SIC 2821). The application was considered complete on March 20, 1989.

#### C. Project and Location

The applicant is requesting permission to construct a system to remove fines (dust) from nylon polymer material manufactured at Monsanto's chemical plant located at 3000 Old Chemstrand Road, Gonzalez, Escambia County, Florida. They have declared that the process used to remove the fines from the nylon polymer material is confidential. The process information is not disclosed in this determination because of the provisions of Section 403.111, F.S., but is maintained on file legal condition as a of the proposed permit. Department Contaminated air from the process passes through a Mikro Pul bag filter containing approximately 1,300 ft<sup>2</sup> of filter area before being discharged to the atmosphere. Nylon fines captured by the bag filter are loaded into drums and disposed of in the countylandfill.

#### D. Emissions

With an air to cloth ratio of approximately 2.7, the bag filter used to control emissions from this process is estimated to be over 99% efficient. Maximum concentration of particulate matter discharged from the plant will be 0.03 grains/dscf. At a flow of 3,530 ACFM from the process, particulate matter emissions could be 0.9 lbs/hr (3.9 TPY).

Reasonable precautions during handling and disposal of the fines collected by the bag filter will be required by the Department. Only periodic escape of unconfined emissions are expected to occur during this operation.

#### II. Rule Applicability

#### A. State Regulations

The proposed project, constructing a nylon polymer fines removal system at a chemical manufacturing plant (SIC 2821), is subject to preconstruction review under the provisions of Chapter 403, F.S., and Chapter 17-2, F.A.C.

The plant site is in an area designated unclassifiable for sulfur dioxide (Rule 17-2.430, F.A.C.) and attainment for all other criteria pollutants (Rule 17-2.420, F.A.C.).

The facility is a major source of volatile organic compounds (Rule 17-2.100, F.A.C.) because total emissions exceed 100 TPY. The proposed modification will emit less than the significant emission rate of any criteria pollutant listed in Table 500-2, F.A.C.

The facility is exempt from the Prevention of Significant Deterioration regulations because the modification to the plant will not result in a significant net emissions increase of any criteria pollutant (Rule 17-2.500(2)(d)4.a.(ii), F.A.C.).

The facility is subject to Rule 17-2.520, F.A.C., Sources Not Subject to PSD or Nonattainment Requirements. Control of emissions shall be based on Rules 17-2.610, 17-2.620, and 17-2.700(3), F.A.C.

#### B. Federal Regulations

This project is not subject to federal PSD regulations, Section 52.21 of Title 40 of the Code of Federal Regulations (40 CFR 52.21), because the modification to the plant will not cause a significant emission rate increase of any criteria pollutant.

#### III. Technical Evaluation

Particulate matter (PM) emissions from the process controlled by a bag filter which is estimated to be over efficient by the applicant. The Department expects the efficiency will be nearer to 99% for a properly designed, maintained, and operated bag filter. We also believe that the estimated 0.03 grains/dscf concentration of PM in the discharge will be the maximum concentration and that, on average, emissions will be lower than the applicant estimated.

The fines collected by the baghouse are disposed of manually. Reasonable precautions to minimize fugitive emissions will be required during this operation. These precautions will include minimizing free fall of the collected material, using a "sock" or other means to avoid the material being carried away by the wind, and not unloading the filter during times it is exposed to high winds.

#### IV. Ambient Air Impact

It is the judgement of the Department that the estimated PM emissions from the proposed process (0.9 lbs/hr) will not violate any ambient air quality standard or increment.

#### V. Conclusion

Based on the information submitted by Monsanto Company, the Department has reasonable assurance that the proposed nylon polymer fines removal system, as described in this evaluation and subject to the conditions proposed herein, will not cause or contribute to a violation of any ambient air quality standard or PSD increment, or violate any other technical provision of Chapter 17-2 of the Florida Administrative Code.





## Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:
Monsanto Company
P. O. Box 12830
Pensacola, Florida 32575

Permit Number: AC 17-160477 Expiration Date: June 1, 1991

County: Escambia

Latitude/Longitude: 30°35'43"N

87°15'20"W

Project: Nylon Polymer Fines

Removal System.

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Construction of a nylon polymer fines removal system consisting of conveying and process equipment with air pollution emissions controlled by a Mikro Pul bag filter containing approximately 1300 ft<sup>2</sup> of filter area and discharging approximately 3,530 ACFM of air through a 1.0 foot diameter stack that is 60 to 80 foot in height. This system is located at the chemical plant at 3000 OTd Chemstrand Road, Gonzalez, Escambia County, Florida.

The UTM coordinates of this system are Zone 16, 475.5 km E and  $3384.6 \ km \ N$ .

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

- 1. Application received February 8, 1989.
- 2. DER letter dated March 7, 1989
- 3. Monsanto Company's letter dated March 17, 1989.

Permit No. AC 17-160477 Expiration Date: June 1, 1991

#### GENERAL CONDITIONS:

- 1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.
- 2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- 3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws of regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- 4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.
- 5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

Permit No. AC 17-160477
Expiration Date: June 1, 1991

#### GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

- 7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:
  - a. Having access to and copying any records that must be kept under the conditions of the permit;
  - b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
  - c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

- 8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:
  - a. a description of and cause of non-compliance; and
  - b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

Permit No. AC 17-160477 Expiration Date: June 1, 1991

#### GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

- 9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.
- 10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- 11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- 12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.
- 13. This permit also constitutes:
  - ( ) Determination of Best Available Control Technology (BACT)
  - ( ) Determination of Prevention of Significant Deterioration (PSD)
  - ( ) Compliance with New Source Performance Standards
- 14. The permittee shall comply with the following monitoring and record keeping requirements:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

Permit No. AC 17-160477 Expiration Date: June 1, 1991

#### GENERAL CONDITIONS:

- b. The permittee shall retain at the facility or other location designated by this permit records of (including all calibration monitoring information and maintenance records and all original strip monitoring instrumentation), recordings for continuous copies of all reports required by this permit, and records of all data used to complete the application for this The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified Department rule.
- c. Records of monitoring information shall include:
  - the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the date(s) analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.
- 15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

#### SPECIFIC CONDITIONS:

- 1. The fines removal system shall not process more 6,6 nylon than is listed in confidential attachment No. 1 of the permittee's March 17, 1989, letter. This attachment is not published under the provisions of Section 403.111, F.S., but is maintained on file by the Department as a legal condition of this permit. The permittee shall maintain records that can be used to determine compliance with this condition.
- 2. Particulate matter emissions from the bag filter shall not exceed 0.03 grains/dscf and 0.91 lbs/hr. This source shall be tested for particulate matter emissions by EPA Methods 1, 2, 3, 4, and 5 if visible emissions, as determined by Method 9, exceed 5% opacity. Specifications for the reference test methods are listed in F.A.C. 17-2.700(6)(b), December 5, 1988.

Permit No. AC 17-160477 Expiration Date: June 1, 1991

#### SPECIFIC CONDITIONS:

- 3. Reasonable precautions during the periodic manual unloading of fines from the bag filter shall be used by the permittee. These precautions shall include minimizing the free fall distance from the filter to the drum, using a sock or other means to prevent the fines from being captured by the wind, and not unloading fines during periods when the filter is exposed to high wind. The drum shall be sealed before hauling the fines away from the process.
- 4. The process may operate continuously, 8760 hrs/yr.
- 5. The nylon polymer fines removal system shall not allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
- 6. The permittee shall notify the Department's Northwest District office at least 15 days prior to any compliance test.
- 7. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the BAQM prior to 60 days before the expiration of the permit (F.A.C. 17-4.090).
- 8. An application for an operation permit must be submitted to the Department's Northwest District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. 17-4.220).

Issued this of	day _, 1989
STATE OF FLORIDA OF ENVIRONMENTAL	
Dale Twachtmann,	Secretary

ATTACHMENTS AVAILABLE UPON REQUEST

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HPTPLU
```

```
-- MODEL FOR SCREENING MAXIMUM CONCENTRATIONS FOR MULTIPLE SOURCES
   MODIFIED FROM PTPLU
```

```
*** TITLE OF SOURCE £ 1 ***
```

#### MONSANTO NYLON FINES REMOVAL SYSTEM

```
>>>INPUT PARAMETERS<<<
```

```
***OPTIONS***
```

IF = 1, USE OPTION

IF = O, IGNORE OPTION

IOPT(1) = O (GRAD PLUME RISE)

IOPT(2) = 0 (STACK DOWNWASH)

IOPT(3) = 0 (BUOY, INDUCED DISP.)

IOPT(4) = 1 (EXTRAPOLATED WIND)

#### \*\*\*METEOROLOGY\*\*\*

AMBIENT AIR TEMPERATURE = 293.00 (K)

= 2000.00 (M) MIXING HEIGHT

ANEMOMETER HEIGHT = 10.00 (H)

WIND EXTRAPOLATION EXPONENTS = A: .10, B: .15, C: .20

D: .25, E: .30, F: .30

#### \*\*\*RECEPTOR HEIGHT\*\*\* = .00 (M)

#### \*\*\*SOURCE\*\*\*

EMISSION RATE = 1.13E-01 (G/SEC)

STACK HEIGHT = 18.29 (M)

294.11 (K) EXIT TEMP. =

EXIT VELOCITY = 22.83 (M/SEC)

STACK DIAM. = .30 (M)

VOLUME FLOW = 1.67E+00 (H\*+3/SEC)

#### >>>CALCULATED PARAMETERS<<<

VOLUMETRIC FLOW = 1.67E+00 (M\*+3/5EC)

BUOYANCY FLUX PARAMETER = .02 /m--4/SEC--3

#### \*\*\* MAXIMUM CONCENTRATION FOR SOURCE : . \*\*\*

\*\*\*\* STACK TOP WINDS EXTRAPOLATED FROM 10.0 METERS \*\*\*\*

\*\*\* WIND SPEED AT 10.0 METER HEIGHT IS GIVEN HERE \*\*\* STABILITY WIND SPEED MAX CONC DIST OF MAX PLUME HT (M/SEC) (UG/CU M) (KM)

(M) 1.00 1.0300E+01 . 393 36.8

#### \*\*\*\* CORRESPONDING SPATIAL DISTRIBUTION \*\*\*\*

DISTANCE RM: CONCENTRATION (UB/M++2

1.6994E-03 . 1

. 2 3.0989E-00

A. 9209E+00

. 5 9.4637E+00

. 7 6.8751E-00 1.0 4.2340E+00

1.5 2.2225E+00

1.5	•	2,2225E+00
2.0		1.3636E+00
3.0		6,7012E-01
5.0		2.6927E-01
7.0		1.4711E-Ö1
10.0		7.7446E-02
15.0		3,73 <b>59E-0</b> 2
20.0		2.22 <b>95E-</b> 02
30.0		1.1089E-02
50.0		5.9 <b>755E-</b> 03

#### \*\*\* SPATIAL DISTRIBUTION OF WORST CONDITIONS \*\*\*

	ULATED FOR THE LAST	1 SOURCE(S)	<b>)</b>
DISTANCE (KM)	MAX CONC (UG/M*+3)	STABILITY	WIND (M/S)
. 1	6.2653E+00	1	2.50
. 2	1.0036E+01	1	1.00
. 3	9.8363E+00	3	1.50
. 5	9.4637E+00	2	1.00
.7	8.4233E+00		1.00
1.0	8.1887E+00	6	= , 00
1.5	9.9724E+00	5	1.00
2.0	9.3113E+00	<b>'</b> 5	1.00
3.0	7.01 <b>55E+00</b>	5	1.00
5.0	4.2963E+00	5	1.00
7.0	2.9778E+00	5	1.00
10.0	1.9907E+00	6	1.00
15.0	1.2373E+00	6	1.00
20.0	8.9337E-01	6	1.00
30.0	5.6199E-01	6	1.00
50.0	3.1934E-01	6	
Stop - Program		J	1.00

Max I ha import 10,3 kg/m³ PM

file capy

## Monsanto

MONSANTO CHEMICAL COMPANY
P. O. Box 12830
Pensacola, Florida 32575-2830
Phone: (904) 968-7000

#### Via Overnight Mail

March 17, 1989

RECEIVED

MAR 20 1989

DER - BAYIN

Mr. Clair Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

#### Dear Mr. Fancy:

The following information is in response to your letter dated March 7, 1989 to Mr. W. J. Board concerning the proposed polymer bag filter, Permit AC17-160477. The following item numbers correspond to the items in your letter.

- 1. The UTM coordinates in the application are for the proposed vent stack. These coordinates should be accurate to within plus or minus 0.1km.
- 2. The current Department permit for the source of the nylon 6,6 is AO17-147272.
- 3. The process weight for the proposed source is addressed in the Confidential attachment No. 1.
- 4. This item is addressed in Confidential attachment No. 2.
- 5. No other pollutants are expected to be emitted.
- 6. The specific bag filter has not been selected. The efficiency and emission rate of 0.03 grains per standard cubic foot has been proposed to represent reasonable bag filter performance. No efficiency or emission rate guarantees have been secured at this time, because the vender has not been selected.

1501.BPM

No information is available concerning the particulate size. At this time, we would have to assume that all of the fines will be below 10 microns in diameter. This is probably a very conservative assumption, which could be evaluated after process start-up.

7. The bag filter will be emptied manually on a periodic basis into a drum or box for county landfill disposal. The bag filter solids will be non-toxic and inert. Reasonable precautions, such as locating the waste container close to the bottom of the bag filter and sealing the dust in the drum or box to prevent release of the material while in transit for disposal will prevent any significant unconfined emissions.

Sincerely,

Bruce P. McLeod Senior Specialist

Environmental Control

Attachments (Confidential)

Copied: St. 18anho E. middlewart EHF/37

SENDER: Complete items 1 and 2 when additional s 3 and 4.  Put your address in the "RETURN TO" Space on the rever card from being returned to you. The return receipt fee will pi to and the date of delivery. For additional fees the following for fees and check box(es) for additional service(s) request 1.   Show to whom delivered, date, and addressee's additional service(s) request 1.	se side. Failure to do this will prevent this vovide you the name of the person delivered services are available. Consult postmaster ed.
3. Article Addressed to:	4. Article Number
Mr. W. J. Board	P 274 007 600
General Superintendent Gov. Affairs/ Env. Health & Safety Monsanto Company P.O. Box 12830	Type of Service:  Registered Insured Cortified COD Express Mail Return Receipt for Merchandise  Always obtain_signature of addressee
Pensacola, FL 32575	or agent and DAME DELIMERED.
5. Signature — Address X	8. A director of the second of
6. Signature - Agent  X Boli Putne  7. Date of Delivery	
PS Form 3811, Mar. 1988 * U.S.G.P.O. 1988-212-	-865 DOMESTIC RETURN RECEIPT

BEST AVAILABLE COPY

P 274 007 600 RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED

NOT FOR INTERNATIONAL PROVIDED

NOT FOR INTERNATIONAL
NOT FOR INTERNATIONAL MAIL  (See Rev.
Sent to
& Mr. W. I. P.
Mr. W. J. Board, Monsanto Co.
Street and No. Board Mons and
P.O. P.
P.O. Box 12830
O P.O. State and The Color
P.O. State and ZIP Code
Barrisacola, FT 20 m
Pensacola, FL 32575
Cenified Fee
Fee Fee
Special Delivery Fee
Selivery Fee
Restricted Delivery Fee
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Return Receipt showing to whom and Date State
to whom and showing
to whom and Date Delivered
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o Date, and Address Nowing to whom
Date, and Address of Delivery
5 VIAL Postage
Return Receipt showing to whom.  TOTAL Postage and Fees  Postmark or Date  Mailed: 3-7-89  Permit: AC 1-2
O Poor
Postmark or Date
Mailed: 3-7-89
5/p 3-7-80
Fermit.
AC 17-160477
Permit: AC 17-160477



### Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

March 7, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. W. J. Board General Superintendent Government Affairs/Env. Health & Safety Monsanto Company Post Office Box 12830 Pensacola, FL 32575

Dear Mr. Board:

Re: File No. AC 17-160477, Polymer Bag Filter

The Department has made a preliminary review of your application for permit to construct a polymer bag filter at Monsanto Company's Escambia County facility. Before this application can be processed, we need the following information.

- 1. Please confirm that the UTM coordinates listed in the application are for the location of the stack for the proposed source.
- 2. What is the current Department permit number for the plant that supplies the nylon 6,6 to the proposed source?
- 3. What is the process weight for the proposed source?
- 4. How is the nylon transferred to and from the chamber and what air pollution control equipment is used on the material handling equipment?
- 5. Are any other pollutants such as VOCs discharged from the proposed bag filter?
- 6. What efficiency and emission rate will the manufacturer guarantee for the proposed bag filter? What percentage of the particulate matter is  $PM_{10}$ ?

Mr. W. J. Board Page Two March 7, 1989

7. Please described how the fines collector by the bag filter are discharged and disposed of. Include the reasonable precautions that will be employed to minimize unconfined emissions.

The Department will resume processing the application after we receive the requested information. If you have any questions on this matter, please call Willard Hanks at (904)488-1344.

Sincerely,

C. H. Fancy, P.E.

Deputy Chief

Bureau of Air Quality

Management

#### CHF/WH/s

cc: E. Middleswart, NW District

B. McLeod, P.E.

MONSANTO CHEMICAL COMPANY P. O. Box 12830 Pensacola, Florida 32575-2830 Phone: (904) 968-7000

#### VIA OVERNIGHT MAIL

February 2, 1989

Mr. Clair Fancy Bureau of Air Quality Management Department of Environmental Regulation 2600 Blair Stone Road Tallahassee, FL 32301

RECEIVED

FEB 8 1989

DER-BAQM

Dear Mr. Fancy:

Enclosed are four copies of an air pollution construction permit application for Nylon Polymer Bag Filter at the Monsanto Pensacola plant.

Also included is a check for \$200 to cover the application fee. I can be reached at (904) 968-8725 if there are questions.

Sincerely,

Bruce P. McLeod

Senior Specialist

Environmental Control

copsed: A. Hands

# Monsanto

WORKING FUND ACCOUNT MONSANTO COMPANY PENSACOLA, FLORIDA **7201**1195

62-20 311

02-03-89

## EXACTE OF THE STATE OF THE STAT

\$200.00

TO THE ORDER

DEPARTMENT OF ENVIRONMENTAL REGULATION

Citibank (Delaware)

Hongang J

P-06

MONSANTO COMPANY, PENSACOLA, FLORIDA

02-03-89

THE ATTACHED CHECK IS IN PAYMENT OF THE FOLLOWING:

72011195

DEPARTMENT OF ENVIRONMENTAL REGULATION

Polymer Bag Filter
Construction Permit B. P. McLeod

PAID
FEB 6 1989

DETACH BEFORE DEPOSITING

CH 142

#### STATE OF FLORIDA

### DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHWEST DISTRICT

160 GOVERNMENTAL CENTER PENSACOLA, FLORIDA 32501



# RECEIVED

BOB GRAHAM

FEB 8 1989

VICTORIA J. TSCHINKEL SECRETARY

> ROBERT V. KRIEGEL DISTRICT MANAGER

DER - BAQM

\* APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Air Poliution [xx] New1 [] Existing1
APPLICATION TYPE: [XX] Construction [ ] Operation [ ] Modification
COMPANY NAME: Monsanto Company COUNTY: Escambia
Identify the specific emission point source(s) addressed in this application (i.e. Lime
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2. Gas Fired) Polymer Bag Filter
SOURCE LOCATION: Street 3000 01d Chemstrand Road City Gonzalez, FL 32560
(APPROXIMATELY) UTM: East Zone 15,475.5 km North 3384.6 km
Latitude ' 'N Longitude ' 'W
APPLICANT NAME AND TITLE: W. J. Board, Gen. Supt., Gov. Affairs/Env. Health & Safety
APPLICANT ADDRESS: P. O. Box 12830, Pensacola, FL 32575
SECTION I: STATEMENTS BY APPLICANT AND ENGINEER
A. APPLICANT
I am the undersigned owner or authorized representative* of Monsanto Company
I certify that the statements made in this application for a Construction permit are true, correct and complete to the best of my knowledge and belief. Further I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.
*Attach letter of authorization Signed: Work Con Affairs (Env. Health
W. J. Board, Gen. Supt., Gov. Affairs/Env. Health & Safety  Name and Title (Please Type)  Date: 5/3/09 Telephone No. 904/968-7350
B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)  This is to certify that the engineering features of this pollution control project have

1 See Florida Administrative Code Rule 17-2.100(57) and (104)

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been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

maintenance and operati	f the department. It is a solvent ed that the undersigned will by the owner, the applicant apeter instructions for the propon of the pollution control control control controls.
pollution sources.	
	Signed British Miller P. E.
•	Bruce P. McLeod, P.E.  Name (Please Type)
•	Monsanto Company
	Company Name (Please Type)
	P. O. Box 12830, Pensacola, FL 32575
	Mailing Address (Please Type)
ida Registration No. 20	6956 Date: 2/3/89 Telephone No. 904/968-8725
SE	CTION II: GENERAL PROJECT INFORMATION
and expected improvemen	extent of the project. Refer to pollution control equipment, ts in source performance as a result of installation. State 1 result in full compliance. Attach additional sheet if
	filter to collect nylon polymer fines
	<del> </del>
	ered in this application (Construction Permit Application Only
Start of Construction	on permit receipt  Completion of Constructionreceipt
for individual componen	rol system(s): (Note: Show breakdown of estimated costs only ts/units of the project serving pollution control purposes. osts shall be furnished with the application for operation
Information on actual c permit.) Bag Filter \$15,000	) )
permit.)	)
permit.)	)
permit.)	)
permit.)	
permit.)  Bag Filter \$15,000	ER permits, orders and notices associated with the emission issuance and expiration dates.
permit.)  Bag Filter \$15,000	ER permits, orders and notices associated with the emission
permit.)  Bag Filter \$15,000  Indicate any previous Dipoint, including permit	ER permits, orders and notices associated with the emission

	·.	-
		<del></del>
	<u> </u>	
	this is a new source or major modification, answer the following quest	ions.
	es or·No)	No
•	Is this source in a non-attainment area for a particular pollutant?	N/A
	a. If yes, has "offset" been applied?	N/A
	b. If yes, has "Lowest Achievable Emission Rate" been applied?	
	c. If yes, list non-attainment pollutants.	N/A
•	Does best available control technology (BACT) apply to this source? If yes, see Section VI.	No 
•	Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII.	No
•	Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?	No 
•	Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this scurce?	No
	"Reasonably Available Control Technology" (MACT) requirements apply	No

b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

#### **BEST AVAILABLE COPY**

#### SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

Raw Materials and Chemicals Used in your Process, if applicable:

	Contaminants		Utilization		
Description	Type	% Wt	Rate - lbs/hr	Relate to Flow Diagram	
Nylon 6,6	. N/A		N/A		
Polymer					

8.	Pro	cess Rate, if applicable:	(See Secti	on V, Item 1)		
	1.	Total Process Input Rate	(lbs/hr):	N/A	_	
	2	Product Weight (lhs/hr).		N/A		

. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of	Emission		Allowed <sup>2</sup> Emission Rate per	Allowable <sup>3</sup> Emission	Potential <sup>4</sup> Emission		Relate to Flow
Centaminant	Maximum lbs/hr	Actual T/yr	Rule lbs/hr 17-2	lbs/hr	lbs/yr	T/yr	Diagram
Particulates	0.9	3.9	N/A	N/A	N/A		1 .
					·		
	٠						

 $<sup>^{</sup>m I}$ See Section V, Item 2.

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ZReference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (l) - O.l pounds per million BTU heat input)

Calculated from operating rate and applicable standard.

 $<sup>^{4}</sup>$ Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Mikro Pul	particulate	95+%	N/A	Nominal
Filter Area				Bag Filter
approximately				Efficiency
1300 sq. ft.				
(or equivalent)				

#### E. Fuels

	Consump	tion*	
Type (Be Specific)	avg/hr_	max./hr	Maximum Heat Input (MMBTU/hr)
N/A			
· · · · · · · · · · · · · · · · · · ·			
-			

Percent Sulfur:	· · · · · · · · · · · · · · · · · · ·	Percent Ash:	<u> </u>	<del></del>
Density:				
Heat Capacity:	BTU/1b			BTU/gal
Other Fuel Contaminants (w				
F. If applicable, indicat	•	l used for space heating.		-

H. Emissi	on Stack Ge	cometry and	Flow Cha	racteri	stics	s (Provide	data for e	ach stack):	
Stack Heig	ht:	60-80		ft.	Stad	ck Diamete	1.0 a	pproxft.	
Gas Flow R	ate: 3530 (	apprass)	3530	DSCFM	Gas	Exit Temp	erature: a	mbient°F.	
Water Vapo	r Content:	ambier	nt	%	Velo	ocity:	75 approx	FPS	
		•				INFORMATI			
Type of Waste								Type VI (Solid By-prod.)	
Actual lb/hr Inciner- ated	NO	Г АРР	L I .C A	B L E					
Uncon- trolled (lbs/hr)									
Manufactur	er							wks/yr	
							· · · · · · · · · · · · · · · · · · ·		
		Volume (ft) <sup>3</sup>	1	Release J/hr)	Ty	Fue]	BTU/hr	Temperature (°F)	
Primery C	hamber		1					,	
	Chamber								
		ft.	Stack Dia	amter:			Stack T	emp	
Gas Flow R	ate:		_ACFH	OSCFM* Velocity:FP					
	more tons p foot dry g						ions rate i	n grains per stan-	
Type of po	llution cor	trol devic	e: [ ] (	yclone	[ ]	Wet Scrub	ber [ ] Af	terburner	
			. [-]	)ther (s	peci	Fy)			
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	•								

			·····			 			
ltimate sh, etc.	disposal ):	of any	effluent	other	than	emitted		(scrubber	water,
						 <del>, .</del>	 	 	

#### SECTION Y: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

- 1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
- 2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
- Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
- 4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
- 5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
- 6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
- 7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of air-borne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
- 8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

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Iu.	struction indicating that the so permit.	permit, attach a Certificate of Completion of Con- urce was constructed as shown in the construction ) T APPLICABLE
		T AVAILABLE CONTROL TECHNOLOGY
; <b>A.</b>	•	new stationary sources pursuant to 40 C.F.R. Part 60
	[ ] Yes [ ] No	
	Contaminant	Rate or Concentration
8.	Has EPA declared the best availab	le control technology for this class of sources (If
	[ ] Yes [ ] No	
	Contaminant	Rate or Concentration
	•	
c.	What emission levels do you propos	e as best available control technology?
	Contaminant	Rate or Concentration
		·
0.	Describe the existing control and	treatment technology (if any).
	1. Control Device/System:	2. Operating Principles:
-	3. Efficiency:*	4. Capital Costs:
}		

Useful Life: Operating Costs: Energy: Maintenance Cost: 9. Emissions: Contaminant Rate or Concentration Stack Parameters Height: ft. ь. Diameter: ft. Flow Rate: ACFM ď. Temperature: OF. FPS Velocity: Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary). 1. Control Device: Operating Principles: ٠b. Efficiency: 1 Capital Cost: Useful Life: Operating Cost: Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate · within proposed levels: 2. Control Device: b. Operating Principles: c. Efficiency: 1 Capital Cost: Useful Life: Operating Cost: g. Energy: 2 Maintenance Cost: i. Availability of construction materials and process chemicals: IExplain method of determining efficiency.  $^{2}$ Energy to be reported in units of electrical power - KWH design rate.

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Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate k. within proposed levels: 3. Control Device: ь. Operating Principles: я. Efficiency: 1 d. Capital Cost: Useful Life: f. Operating Cost: Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: i. j. Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: Control Device: h. Operating Principles: Efficiency: 1 Capital Costs: d. Useful Life: Operating Cost: Energy: 2 Maintenance Cost: Availability of construction materials and process chemicals: i. Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: Describe the control technology selected: Control Device: 2. Efficiency: 1 1. 3. Capital Cost: 4. Useful Life: Operating Cost: Energy: 2 Maintenance Cost: Manufacturer: Other locations where employed on similar processes: (1) Company: (2) Mailing Address: (4) State: (3) City: Explain method of determining efficiency. <sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

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(5) Environmental Manager:	
	•
(6) Telephone No.:	
(7) Emissions: 1	· ·
Contaminant	Rate or Concentration
	<u></u>
<u> </u>	
(8) Process Rate: 1	
b. (1) Company:	
(2) Mailing Address:	
(3) City:	(4) State:
(5) Environmental Manager:	
(6) Telephone No.:	
(7) Emissions: 1	
Contaminant	Rate or Concentration
-	
	<u>-</u>
,	
(8) Process Rate: 1	
10. Reason for selection and description	n of systems:
	en available. Should this information not be
available, applicant must state the reason(	s) why.
available, applicant must state the reason( SECTION VII - PREVENTION	of SIGNIFICANT DETERIORATION
available, applicant must state the reason(  SECTION VII - PREVENTION (  A. Company Monitored Data	g) why.  OF SIGNIFICANT DETERIORATION
SECTION VII - PREVENTION  SECTION VII - PREVENTION  1	g) why.  OF SIGNIFICANT DETERIORATION  ( ) SO <sup>2</sup> * Wind spd/dir
SECTION VII - PREVENTION  SECTION VII - PREVENTION  1	g) why.  OF SIGNIFICANT DETERIORATION
SECTION VII - PREVENTION  SECTION VII - PREVENTION  1	g) why.  OF SIGNIFICANT DETERIORATION  ( ) SO <sup>2</sup> * Wind spd/dir  / / / day year month day year
SECTION VII - PREVENTION  A. Company Monitored Data  1no. sitesTSP  Period of Monitoring / month	g) why.  OF SIGNIFICANT DETERIORATION  ( ) SO <sup>2</sup> * Wind spd/dir  / / / day year month day year
SECTION VII - PREVENTION  A. Company Monitored Data  1no. sitesTSP  Period of Monitoring/month  Other data recorded	g) why.  OF SIGNIFICANT DETERIORATION  ( ) SO <sup>2</sup> * Wind spd/dir  / / / day year month day year

				•			r 3 v	r 7	•			
	8.	Was instru	nentation EPA	reterence	d of its e	quivalent?	[ ] Yes	ГЛио				
	b.	Was instru	entation cal	ibrated in	accordanc	e with Dep	artment p	rocedure	9?			
		[ ] Yes [	] No [ ] Un	known		•						
В.	Mete	orological	Data Used fo	r Air Qual	ity Modeli	ng						
	1.	Year	s) of data f	rom	/ / day year	to month	/ / day yea	<del>-</del>				
	2.	Surface dal	a obtained f	rom (locat	ion)	- <u>-</u>		_		_		
	3.	Upper air (	mixing heigh	t) data ob	tained fro	m (locatio	n)			_		
	4.	Stability v	ind rose (ST	AR) deta o	btained fr	om (locati	on)			_		
c.	Comp	Computer Models Used										
	1.	-				Modified?	If yes,	attach	description			
	2.			<del> </del>		Modified?	If yes,	attach	description			
	3.				_	Modified?	If yes,	attach	description	•		
	4.				-	Modified?	If yes,	attach	description	•		
		ich copies d Le output ta	f all final	model runs	showing i	nput data,	receptur	locatio	ns, and pri	٦.		
<b>D</b> .	Appl	icants Maxi	.mum Allowabl	e Emission	Data				*			
	Poll	.utant		Emission	Rate							
	T	'SP				g <b>r</b>	ams/sec					
	s	02				gr	ams/sec					
Ε.	Emis	sion Data (	Ised in Model									
			emission sou									

point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

Instrumentation, Field and Laboratory

- G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). assessment of the environmental impact of the sources.
- Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

#### MONSANTO PENSACOLA

#### CALCULATION OF PARTICULATE EMISSIONS

$$\frac{3530 \text{ ft}^3}{\text{min.}}$$
 x  $\frac{60 \text{ min.}}{\text{hr}}$  x  $\frac{0.03 \text{ grain*}}{\text{ft}^3}$  x  $\frac{1 \text{ lb}}{7000 \text{ grains}}$  =  $\frac{0.9 \text{ lb}}{\text{hr}}$  hr  $\frac{0.9 \text{ lb}}{\text{hr}}$  x  $\frac{1 \text{ ton}}{\text{yr}}$  =  $\frac{3.9 \text{ tons}}{\text{yr}}$ 

\*Emission based on nominal bag filter emission rate of 0.03 grains per standard cubic foot of air flow exhausted.

