

Check Sheet

Company Name: Monsanto Chemical Company
Permit Number: AC 17-143770
PSD Number: _____
Permit Engineer: _____

Application:

- Initial Application
- Incompleteness Letters
- Responses
- Waiver of Department Action
- Department Response
- Other

Cross References:

-
-
-

vaporizer (small boiler)

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

PM
8-11-88
Pensacola, FL

file copy

Monsanto

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

RECEIVED
AUG 15 1988
DER-BAQM

August 10, 1988

Mr. Clair Fancy
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Fancy:

The initial construction permit submitted for the Therminol Vaporizer No. 7, Permit AC17-143776, contained Attachment 1, appended for your reference. This supplemental information addressed the possibility that the existing vaporizer No. 6 stack would have to be shortened by approximately ten feet in order to accommodate the additional flow from the new vaporizer No. 7.

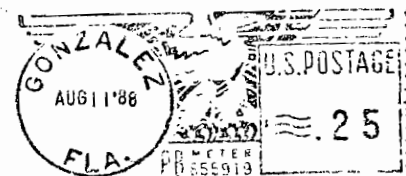
It has been determined that shortening the No. 6 vaporizer stack will be necessary. This change will have no impact on the Department's technical evaluation and preliminary determination because stack height was not used in this assessment.

In a telephone discussion with Willard Hanks on August 8, 1988, he confirmed that because of the relatively minor impact on the environment of this source, height was not a factor in the Department's permitting determination. We discussed the fact that the process description of Permit AC17-143776 referenced a 125 foot high, 2.67 foot diameter stack. Mr. Hanks indicated that since the possibility that the No. 6 stack would have to be shortened was a part of the original construction permit and the actual stack height was not a factor in the Department's permitting determination, additional permitting activity to reduce the stack height would not be required.

1302.BPM

Monsanto

MONSANTO CHEMICAL COMPANY
P. O. Box 12830
Pensacola, Florida 32575



MR CLAIR FANCY
DEPARTMENT OF ENVIRONMENTAL REGULATION
TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE FL 32399-2400



If there are any questions, I can be reached at 904/968-8725.

Sincerely,

Bruce P. McLeod, P.E.

Bruce P. McLeod, P.E.
Senior Specialist
Environmental Control

Attachment

*Copied: Jack Phree, NW Dist.
Millard Hanks
CHF/BT*

ATTACHMENT 1

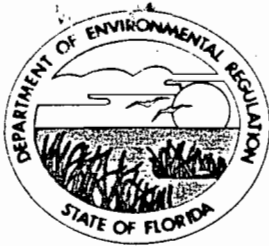
MONSANTO-PENSACOLA

Stack flow data if stack modification is required.

Flow restrictions, caused by the flue gas stack, may require removal of approximately the top 10 ft. of the stack. If this is necessary the Section III Part H Emission stack geometry and the flow characteristics will be as follows:

Stack Height	115 ft. (approx)
Stack Diameter	3.67 ft. (approx)
Velocity	24 fps (approx)

Other parameters are not expected to change significantly.



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

July 27, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. W. J. Board
General Superintendent
Monsanto Chemical Company
Post Office Box 12830
Pensacola, Florida 32575

Dear Mr. Board:

Re: Amendment of Permit No. AC 17-143776 and the BACT
Determination for the No. 7 Dowtherm Vaporizer

The Department is in receipt of Mr. Bruce McLeod's July 8, 1988, letter requesting the testing requirements listed in Specific Condition No. 2 of the referenced construction permit be revised to the ones originally proposed in the Technical Evaluation and Preliminary Determination for this unit.

The Department finds this request acceptable, with conditions, and has amended construction permit No. AC 17-143776 for the No. 7 Dowtherm Vaporizer.

Specific Condition No. 2 is Changed:

From: If visible emission exceed 5% opacity, 6 minute average, the permittee shall notify the District office and conduct a particulate matter test by Method 5 (40 CFR 60, Appendix A) within 15 days of the observation.

To: Visible emissions shall not exceed 15% opacity, 6 minute average.

The Department has also amended the BACT determination to be consistent with the testing requirements. The attached BACT determination (originally proposed in the Technical Evaluation and Preliminary Determination) replaces the one approved on June 8, 1988.

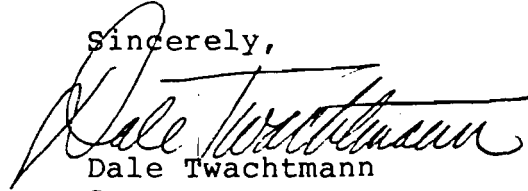
Mr. W. J. Board
Page Two
July 27, 1988

Attachments to be Incorporated:

6. Monsanto letter dated July 8, 1988.
7. Revised BACT Determination.

A copy of this letter must be attached to the referenced construction permit and shall become a part of that permit.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dale Twachtmann".

Dale Twachtmann
Secretary

DT/ks

attachment

cc: E. Middleswart, NW District
B. McLeod, Monsanto

Revised
Best Available Control Technology (BACT) Determination
Monsanto Chemical Company
Escambia County

The applicant plans to construct and operate a 26 MMBtu/hr natural gas fired (No. 2 fuel oil stand-by) Dowtherm (Therminol®) vaporizer. The vaporizer may burn natural gas continuously (8760 hrs/yr) or No. 2 fuel oil, when natural gas isn't available, for up to 30 days per year.

A BACT determination is required for this source as set forth in Florida Administrative Code Rule 17-2.600(6), Fossil Fuel Steam Generators with Less than 250 million Btu per Hour Heat Input, New and Existing Sources.

BACT Determination Requested by the Applicant:

Particulate matter and sulfur dioxide emissions to be controlled by firing natural gas or No. 2 distillate fuel oil with low sulfur and ash content.

Date of Receipt of a BACT Application:

January 6, 1988

Review Group Members:

This determination is based on comments received from the Stationary Source Control Section staff.

BACT Determination by DER:

The amount of particulate matter and sulfur dioxide emissions from the Dowtherm vaporizer to be controlled by firing natural gas or No. 2 distillate fuel oil having a maximum sulfur content of 0.5% by weight. Maximum emissions are:

Visible Emissions:	Not to exceed 15% opacity 6 minute average
--------------------	---

Reference Methods 9, as described in 40 CFR 60, Appendix A, shall be used to determine compliance with the emission standards.

BACT Determination Rationale:

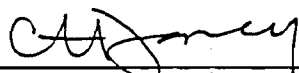
The Department agrees with the applicant's proposal that the firing of natural gas or low sulfur/ash content No. 2 distillate fuel oil represents BACT for this source. The distillate fuel oil should not contain more than 0.5% sulfur by weight. Sulfur in the fuel oil is a primary air pollution concern.

Particulate matter emissions can be measured indirectly by observing the visible emissions from some sources. A properly designed, operated, and maintained vaporizer firing low sulfur and ash fuels will have low visible emissions.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blairstone Road
Tallahassee, Florida 32399-2400

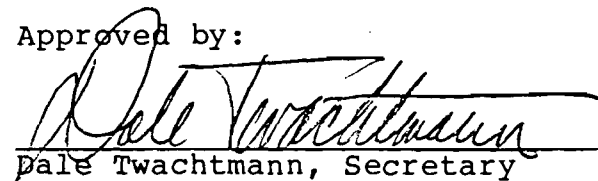
Recommended by:



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

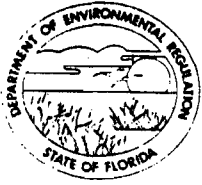
July 27, 1988
Date

Approved by:



Dale Twachtmann, Secretary

1 August 1988
Date



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 *Smallwood*

SUBJ: Amendment of Monsanto Chemical Company
State Construction Permit Number: AC 17-143776

DATE: July 27, 1988

Attached for your approval and signature is a letter prepared by Central Air Permitting to amend the construction permit and BACT determination issued to the above mentioned company for the No. 7 Dowtherm Vaporizer. The facility is located north of Pensacola in Escambia County, Florida.

I recommend your approval and signature.

SS/wh

attachments

RECEIVED

JUL 28 1988

Office of the Secretary

PM
8 July 1988
Gonzalez, FL

Monsanto

File Copy

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

RECEIVED

JUL 11 1988

DER-BAQM

VIA OVERNIGHT MAIL

July 8, 1988

#7 Downstream

Mr. Clair Fancy
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Fancy:

In response to Monsanto's comments, the Department modified Specific Condition 2 of Permit AC17-143776. The revised Specific Condition 2 issued June 14, 1988 by the Department, presents an untenable situation for the Pensacola plant because of the following factors:

1. Compliance with the visible emissions exceedance reporting item would require a continuous opacity monitor with a control room mounted alarm, which is not provided on this unit.
2. The particulate matter testing deadlines cannot be met by the Pensacola plant with the current physical facilities.

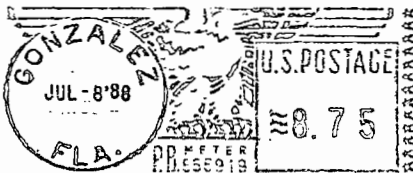
The problem with the wording of Specific Condition 2 can be attributed to a lack of specificity in Monsanto's initial comments.

In order to resolve this issue in the shortest possible time, it is requested that the original Specific Condition 2 be reinstated into Permit AC17-143776. Specific Condition 2 would then read as follows:

"Visible emissions shall not exceed 15% opacity, six minute average."

Thank you for your consideration in this matter, If there are any questions concerning this issue, I can be reached at 904/968-8725. On July 1, 1988, Monsanto requested an extension to the deadline for filing a petition for Administrative

1270.BPM



POST OFFICE TO ADDRESSEE EXPRESS MAIL NEXT DAY SERVICE



B 21524449

For Postal Use

ORIGIN	Date in:	Postage
Post Office ZIP Code	Time in: A.M. P.M.	\$
Initials of Receiving Clerk	Weight	Return Receipt Fee
<input type="checkbox"/> Accepted for next day delivery. <input type="checkbox"/> Accepted for this destination after deposit made for next day delivery elsewhere for delivery by second day. <small>(Consult your local Express Mail Next Day Service Office for deposit deadlines for different destinations.)</small> <input type="checkbox"/> International On Demand Country Code		

For Customer Use

Account Number: _____
(Using an authorized number indicates postage and fees paid.)
Express Mail Corporate Account No.: _____
Federal Agency Control No.: _____

FROM:
 Mr. Phillip
 P.O. Box 1234
 Pensacola FL 32575

PLACE MAILING LABEL HERE

DESTINATION	Date of Delivery	Time of Delivery
		A.M. P.M.
Signature of Addressee or Agent		
DELIVERY WAS ATTEMPTED	Date:	Time: A.M. P.M.
Signature of Delivery Employee		
WAIVER OF SIGNATURE AND INDEMNITY	I wish delivery to be made without obtaining the signature of the addressee or the addressee's agent and I authorize the delivery employee to sign that the shipment was delivered and understand that the signature of the delivery employee will constitute valid proof of delivery. SIGNED: _____	

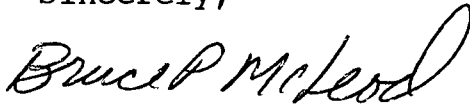
ADDRESSEE'S COPY

TO: _____ Telephone Number: _____

MR. CLAYTON
 DEPARTMENT OF ENVIRONMENTAL REGULATION
 2501 BLAIR STONE ROAD
 TALLAHASSEE, FL 32309-2400

proceeding to and including August 1, 1988. A copy of this request is attached for your reference. This issue has been discussed with Mr. Bill Thomas and Mr. Willard Hanks of your staff. We concur that a mutually acceptable revision of the language of Specific Condition 2 is to reinstate the original condition language as described on page 1.

Sincerely,



Bruce P. McLeod
Senior Specialist
Environmental Control

Attachment

cc: J. G. Wiley - Monsanto, Pensacola

Copied: Willard Hanks }
CHF/BT } 7-11-88 (my)
Ed Middleman }
along with 7/1/88 request

Hand delivered

file copy

HOPPING BOYD GREEN & SAMS

ATTORNEYS AND COUNSELORS

SUITE 420, FIRST FLORIDA BANK BUILDING

POST OFFICE BOX 6526

TALLAHASSEE, FLORIDA 32314

(904) 222-7500

CARLOS ALVAREZ
BRIAN H. BIBEAU
ELIZABETH C. BOWMAN
WILLIAM L. BOYD, IV
RICHARD S. BRIGHTMAN
PETER C. CUNNINGHAM
WILLIAM H. GREEN
WADE L. HOPPING
FRANK E. MATTHEWS
RICHARD D. MELSON
WILLIAM D. PRESTON
CAROLYN S. RAEPPLE
GARY R. SAMS
ROBERT R. SMITH, JR.

JAMES S. ALVES
KATHLEEN BLIZZARD
ANNE W. CLAUSSEN
THOMAS M. DEROSE
KATHLEEN E. MOORE
LAURA BOYD PEARCE
DAVID L. POWELL
CHERYL G. STUART

OF COUNSEL
W. ROBERT FOKES

July 1, 1988

BY HAND DELIVERY

Dale H. Twachtman, Secretary
c/o Office of General Counsel
Florida Department of Environmental
Regulation
2600 Blair Stone Road, Room 654
Tallahassee, Florida 32399-2400

Re: Monsanto Chemical Company
Permit No. AC 17-143776

Dear Secretary Twachtman:

On June 17, 1988, Monsanto Chemical Company (Monsanto) received air permit No. AC 17-143776 authorizing construction of the No. 7 Dowtherm Vaporizer at its facility in Escambia County, Florida. The permit was processed by the Central Air Permitting Section of the Department's Bureau of Air Quality Management. Pursuant to Florida Administrative Code Rule 17-103.155, Monsanto has until July 1, 1988 to file a petition for administrative proceedings regarding the Department's action on the permit.

I am writing on behalf of Monsanto to request an extension of thirty-one (31) days, to and including August 1, 1988, in which to file a petition for administrative proceedings regarding the permit. This request is made pursuant to Florida Administrative Code Rule 17-103.070, which provides that a timely request for extension of time shall toll the running of the time period in which to file an appropriate petition. As good cause for granting the requested extension of time, Monsanto would show:

1. Specific Condition 2 of the permit addresses visible emissions and particulate matter compliance testing for the new Dowtherm Vaporizer in a manner entirely different from the proposed permit issued in connection with the Department's Notice of Intent.

RECEIVED

JUL 01 1988

DER-BAQM

Dale H. Twachtmann, Secretary
July 1, 1988
Page 2

2. Monsanto commented upon, and suggested revision of, Specific Condition 2 as contained in the proposed permit by letter dated April 18, 1988. While it appears that the Department intended the revised version of Specific Condition 2 in the final permit to be responsive to Monsanto's concerns, Monsanto finds the final permit condition to be inappropriate and unacceptable.

3. A representative of Monsanto has discussed the concerns about Specific Condition 2 as it appears in the final permit with Bill Thomas of the Bureau of Air Quality Management. Based on those discussions, there is a reasonable probability that a mutually acceptable revision of the language of Specific Condition 2 of the permit can be achieved.

4. This request is filed solely as a protective measure to avoid waiver of Monsanto's right to initiate administrative proceedings regarding the permit. Grant of this request will afford the parties an opportunity to complete discussion of the permit condition of concern and to reach a mutually acceptable resolution of the issue without initiation of administrative proceedings. Neither party will be prejudiced by grant of this request.

I hereby certify that I have spoken with Carol Forthman, Deputy General Counsel for the Department, and that Ms. Forthman has agreed to take this request under advisement.

Accordingly, I respectfully request that you formally extend the time for filing of a petition for administrative proceedings in regard to Department air construction permit No. AC 17-143776 to and including August 1, 1988.

Sincerely,


Peter C. Cunningham

PCC/gb

cc: Carol Forthman, Esquire
Betsy Pittman, Esquire
Bill Thomas, BAQM
Pete Smith, Esquire
Bruce McLeod

Seresa Heron
Ed Middleswart }
CHF/BT

Express Mail # B 86032270

PM
12 May 1988
Gonzalez, FL

File Copy

Monsanto

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

RECEIVED

MAY 13 1988

DER-BAQM

VIA OVERNIGHT MAIL

May 11, 1988

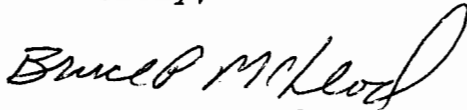
Mr. C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301-8141

Dear Mr. Fancy:

Attached is proof of publication of the public notice for construction permit AC17-143776, No. 7 Dowtherm (Therminol) Vaporizer.

Please issue this construction permit as soon as possible.

Sincerely,



Bruce P. McLeod
Senior Specialist
Environmental Control

Attachment

cc: J. G. Wiley, Monsanto, Pensacola

Copied: Wiley & Banks }
Ed Middleton } 5.16.88

Monsanto

MONSANTO CHEMICAL COMPANY

P. O. Box 12830

Pensacola, Florida 32575

MR C H FANCY P E DEPUTY CHIEF
BUREAU OF AIR QUALITY MANAGEMENT
DEPARTMENT OF ENVIRONMENTAL REGULATION
TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE FL 32301-8241

Express Mail
#B86032270

RECEIVED

PA 12 May 1988
Journal

See Copy

PENSACOLA
News Journal

MAY 13 1988

DER - BAQM

LEGAL NOTICE

PUBLISHED DAILY
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

State of Florida,
County of Escambia.

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

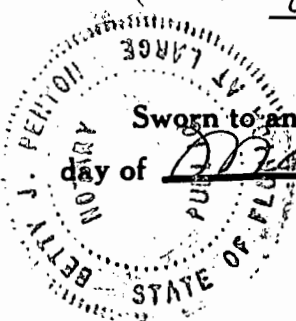
Intent

_____ in the _____ Court,
was published in said newspaper in the issues of _____

April 22, 1988

Affiant further say that the said The Pensacola News
Journal is a newspaper published at Pensacola, in said Escam-
bia 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 cor-
poration any discount, rebate, commission or refund for the
purpose of securing this advertisement for publication in the
said newspaper.

J. Diane Deal



Sworn to and subscribed before me this 3rd

day of May, A.D., 19 88

Betty J. Penton
NOTARY PUBLIC.

Copied: Willard Nanko }
Ed. Kiddleman } 5-16-88
My Commission Expires October 26, 1991

State of Florida
Department of
Environmental
Regulation

Notice of Intent

The Department of En-
vironmental Regulation
hereby gives notice of its
intent to issue a permit
to Monsanto Company to
Construct/install a 26
MMBtu/hr natural gas
fired (No. 2 fuel oil
stand-by) Dowtherm
(Therminol) vaporizer at
the company's chemical
plant that is located near
State Road 749, Gonzale,
Escambia County, Flor-
ida. A best available
control technology deter-
mination was made for
this source. The emis-
sions from this source
will not cause a violation
of any ambient air qual-
ity standard. The Depart-
ment is issuing this In-
tent to issue for the
reasons stated in the
Technical Evaluation and
Preliminary Determina-
tion.

Persons whose sub-
stantial interests are af-
fected by the Depart-
ment's proposed
permitting decision may
petition for an adminis-
trative determination
(hearing) in accordance
with Section 120.57,
Florida Statutes. The pe-
tition must conform to
the requirements of
Chapter 17-103 and 28-5,
Florida Administrative
Code, and must be filed
(received) in the Depart-
ment's Office of General
Counsel, 2600 Blair
Stone Road, Twin Tow-
ers Office Building, Tal-
lahassee, Florida 32301,
within fourteen (14) days
of publication of this
notice. Failure to file a
petition within the four-
teen (14) days consti-
tutes a waiver of any
right such person has to
any administrative deter-
mination (hearing) pur-
suant to Section 120.57,
Florida Statutes.

If a petition is filed,
the administrative hear-
ing process is designed
to formulate agency ac-
tion. Accordingly, the
Department's final action
may be different from
the proposed agency ac-
tion. Therefore, persons
who may not wish to file
a petition may wish to
intervene in the proceed-
ing. A petition for inter-
vention must be filed
pursuant to Rule 28-
5.207, Florida Adminis-
trative Code, at least five
(5) days before the final
hearing and be filed with
the hearing officer if one
has been assigned at the
Division of Administra-
tive Hearings, Depart-
ment of Administration,
2009 Apalachee Park-
way, Tallahassee, Florida
32301. If no hearing offi-

POST OFFICE TO ADDRESSEE

EXPRESS MAIL
NEXT DAY SERVICE®



B 86032270

For Postal Use

ORIGIN	Date In: <u>5-17-88</u>	Postage: \$ <u>3.95</u>
Post Office ZIP Code: <u>27502</u>	Time In: <u>1:40</u> A.M. / P.M.	Return Receipt Fee: \$
Initials of Receiving Clerk: <u>W</u>	Weight: <u>4.5</u> lbs.	Total Postage & Fees: \$ <u>3.95</u>
<input checked="" type="checkbox"/> Accepted for next day delivery. <input type="checkbox"/> Accepted for this destination after deposit deadline for next day delivery therefore, for delivery by second day. <small>(Consult your local Express Mail Next Day Service directory for deposit deadlines for different destinations.)</small>		<input type="checkbox"/> International On Demand
ACCEPTANCE		

For Customer Use

Account Number (if any) (Using an authorized number indicates postage and fees paid.)

Express Mail Corporate Account No. _____

Federal Agency Control No. _____

FROM:

B P NECED
MONSANTO
P O BOX 12830
TALLAHASSEE FL 32301-8241

For Postal Use

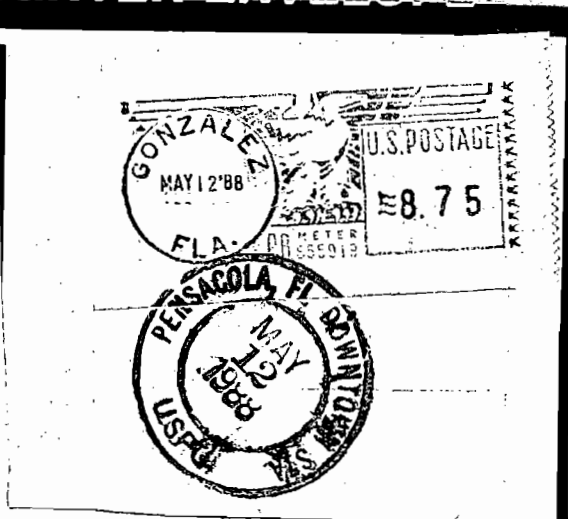
DESTINATION	
Date of Delivery: <u>5-13-88</u>	Time of Delivery: <u>1100</u> P.M.
Initials of Delivery Employee: <u>WMB</u>	
Signature of Addressee or Agent: <u>[Signature]</u>	
DELIVERY WAS ATTEMPTED	
Date: _____	Time: _____ A.M. / P.M.
Notice Left By: _____	

For Customer Use

ADDRESSEE'S COPY

TO: Telephone Number _____

MR C H FANCY P E
DEPUTY CHIEF
BUREAU OF AIR QUALITY MGT
DPT OF ENVIRONMENTAL REGULATION
2600 BLAIR STONE ROAD
TALLAHASSEE FL 32301-8241



1987 AS 160-150-105K

cer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

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

Dept. 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.

LEGAL NO. 34299 1T
APRIL 22, 1988

Express mail # 86032273

Express Mail
18 April 1988
Gonzalez, R

File Copy

Monsanto

AC 17-143776

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

VIA OVERNIGHT MAIL

April 18, 1988

RECEIVED

APR 19 1988

DER-BAQM

Mr. Bill Thomas
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Thomas:

SUBJECT: Therminol Permit Comments

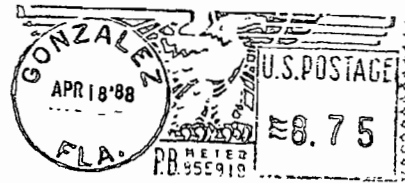
Following are comments relating to proposed permit AC17-143776, No. 7 Dowtherm (Therminol) Vaporizer. This proposed permit was received on April 6, 1988.

This comment pertains to Specific Condition No. 1. The draft permit includes a maximum allowable heat input of 26M Btu's per hour. This is the "nameplate" maximum heat input rating of the vaporizer as supplied by the vendor. Essentially, the vendor has rated this unit capable of operation at 26M Btu's per hour heat input based on certain operating variables such as ambient air temperature and fuel heating value. Given the actual conditions at the Monsanto site, it could be possible to exceed the design rating of the boiler. In which case, Monsanto would like the ability to operate at that higher rating. Is not unreasonable for any facility to exceed its design maximum capacity by at least 10%. If this were the case with the No. 7 Therminol Vaporizer, the maximum actual heat input would be 28.6M Btu's per hour. The actual performance of the unit cannot be determined until the initial demonstration test, which makes establishing a maximum operating rate in a construction permit inappropriate.

It is requested that Specific Condition No. 1 be deleted or modified to reference that the operating permit will specify a maximum allowable heat input as determined by the initial demonstration test of the unit.

This comment pertains to Specific Condition No. 2. Visible emissions were established at 15% opacity based on a BACT

1157.BPM



POST OFFICE TO ADDRESSEE

EXTRA NEXT DAY SERVICE

B 86032273

For Postal Use	ORIGIN	Date In: <u>4-18-88</u>	Postage \$ <u>5.74</u>
	Post Office ZIP Code: <u>32560</u>	Time In: <u>11:40</u> A.M. P.M.	Return Receipt Fee: \$ <u> </u>
	Initials of Receiving Clerk: <u>WMM</u>	Weight: <u>3.62</u> lbs.	Total Postage & Fees \$ <u>5.75</u>
	<input checked="" type="checkbox"/> Accepted for next day delivery. <input type="checkbox"/> Accepted for this destination after deposit deadline for next day delivery, therefore, for delivery by second day. <small>(Consult your local Express Mail Next Day Service directory for deposit deadlines for different destinations.)</small>		
<input type="checkbox"/> International On Demand		Account Number (if any) (Using an authorized number indicates postage and fees paid.) Express Mail Corporate Account No.: _____ Federal Agency Control No.: _____	
FROM: G P MELEDD MONSANTO P O BOX 12830 PELISACOLA FL 32375			

DESTINATION	
Date of Delivery: <u>4-19-88</u>	Time of Delivery: <u>11:50</u> A.M. P.M.
Initials of Delivery Employee: _____	
<input checked="" type="checkbox"/> Signature of Addressee or Agent: <u>[Signature]</u>	
DELIVERY WAS ATTEMPTED	
Date: _____	Time: _____ A.M. P.M.
Notice Left By: _____	

ADDRESSEE'S COPY

TO: Telephone Number: _____

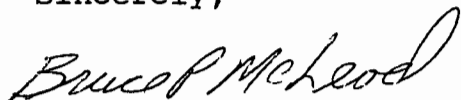
MR BILL THOMAS
 DEPARTMENT OF ENV. REGULATION
 2500 ELAIR STONE ROAD
 TALLAHASSEE FL 32301

determination included with the proposed construction permit. The estimated emissions in the construction permit application were not above the significant emission rates, which would trigger PSD permitting. A BACT determination is not applicable in this case. Therefore, it is requested that the visible emissions limit be shown as 20% opacity as specified in 17-2.610(2). The Pensacola plant will accept a specific condition specifying 5% opacity or less when burning natural gas fuel as a qualification for a particulate testing waiver.

This comment pertains to Specific Condition No. 3. Specific Condition 3 mandates that the operating permit include annual source testing for EPA method 9. Monsanto believes that establishing the frequency of compliance testing in the construction permit is not appropriate. Based on the performance of the unit, compliance testing, more or less frequently, may be appropriate. Since compliance testing is handled by the District office, it seems appropriate that the compliance testing frequency should be established at the discretion of the District office.

It is requested that the annual compliance testing requirement in Specific Condition No. 3 be deleted and replaced with a requirement to conduct a one-time compliance test at the start-up of the unit as part of the initial demonstration testing. These results could be submitted with the certificate of completion and operating permit application.

Sincerely,



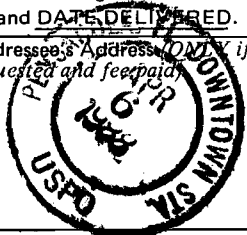
Bruce P. McLeod
Senior Specialist
Environmental Control

c: J. G. Wiley

Copied: Willard Hanks }
Ed Middlewart } 4-20-88 mm
CHF/BT }

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. 2. Restricted Delivery.

<p>3. Article Addressed to: Mr. W. J. Board, Gen. Supt. P.O. Box 12830 Pensacola, FL 32575</p>	<p>4. Article Number P 274 010 364</p> <p>Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail</p> <p>Always obtain signature of addressee or agent and DATE DELIVERED.</p>
<p>5. Signature - Addressee X</p>	<p>8. Addressee's Address ONLY if requested and fee paid</p>
<p>6. Signature - Agent <i>Debbie Favonito</i></p> <p>7. Date of Delivery</p>	

PS Form 3811, Feb. 1986

DOMESTIC RETURN RECEIPT

P 274 010 364

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

PS Form 3800, June 1985 ★ U.S.G.P.O. 1985-480-794	Return to Board, Gen. Supt., Monsanto Chemical Company Street and No. P.O. Box 12830 P.O. State and ZIP Code Pensacola, FL 32575	
	Postage	\$
	Certified Fee	
	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	\$
	Postmark or Date Mailed: 04-05-88 Permit: AC 17-143776	

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

March 31, 1988

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. W. J. Board
General Superintendent
Monsanto Company
Post Office Box 12830
Pensacola, Florida 32575

Dear Mr. Board:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit for Monsanto Company to construct a No. 7 Dowtherm Vaporizer.

Please submit, in writing, any comments which 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/bm

Attachments

cc: Bruce McLeod, P.E., Monsanto
Jack Preece, NW District

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Applications for Permits by:

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

DER File No. AC 17-143776

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 applications 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 January 6, 1988, to the Department of Environmental Regulation for a permit to construct a No. 7 Dowtherm Vaporizer. This source will be located in Monsanto's existing chemical plant that is near State Road 749, 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 was needed for the proposed work.

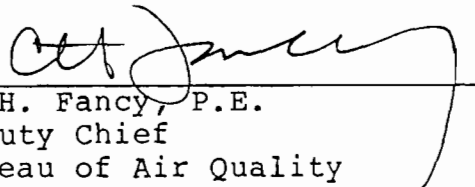
Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, FAC, you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on permit applications. The notice must be published one time only in a section of a major local newspaper of general circulation in the county in which the project is located and within thirty (30) days from receipt of this intent. Proof of publication must be provided to the Department within seven days of publication of the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permits.

The Department will issue the permits with the attached conditions unless 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 an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. Petitions must comply with the requirement of Florida Administrative Code Rules 17-103.155 and 28-5.201 (copy enclosed) and be filed with (received by) the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant must be filed within fourteen (14) days of receipt of this intent. Petitions filed by other persons must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this intent, whichever first occurs. 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, concerning the subject permit application. Petitions which are not filed in accordance with the above provisions will be dismissed.

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:

Bruce McLeod, P.E., Monsanto
Jack Preece, NW District

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 April 5, 1988.

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 Wise
Clerk

April 5, 1988
Date

RULES OF THE ADMINISTRATIVE COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

- (1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.
- (2) All petitions filed under these rules should contain:
 - (a) The name and address of each agency affected and each agency's file or identification number, if known;
 - (b) The name and address of the petitioner or petitioners;
 - (c) All disputed issues of material fact. If there are none, the petition must so indicate;
 - (d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;
 - (e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;
 - (f) A demand for the relief to which the petitioner deems himself entitled; and
 - (g) Such other information which the petitioner contends is material.

State of Florida
Department of Environmental Regulation
Notice of Intent

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to Monsanto Company to construct/install a 26 MMBtu/hr natural gas fired (No. 2 fuel oil stand-by) Dowtherm (Therminol®) vaporizer at the company's chemical plant that is located near State Road 749, Gonzalez, Escambia County, Florida. A best available control technology determination is required for this source. The emissions from this source will not cause a violation of any ambient air quality standard. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

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 proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

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:

Dept. 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
Pensacola, Florida
Escambia County

No. 7 Dowtherm (Therminol®) Vaporizer
File No. AC 17-143776

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

March 31, 1988

I. General Information

A. Applicant

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

B. Project and Location

Monsanto Company submitted an application for a permit to construct a Dowtherm (Therminol®) Vaporizer at their existing nylon chemical plant (SIC 2821) near State Road 749, Gonzalez, Escambia County, Florida. This will be the seventh Therminol® vaporizer at this facility.

D. Process and Emission

Up to 26 MMBtu/hr of natural gas (No. 2 fuel is a back-up fuel) will be burned in a fossil fuel fired steam generator to vaporize a heat exchange medium similar to Dowtherm that Monsanto named Therminol®. The Therminol® vapors will be used to operate existing process equipment. As only relatively clean fuels will be burned in the unit, no air pollution control equipment will be installed on the vaporizer. Emission factors for industrial boilers fired with natural gas and distillate fuel oil were used as the basis to estimate the emissions from the vaporizer. The primary air pollutant of concern from natural gas combustion is nitrogen oxides. The estimated nitrogen oxides emissions from natural gas combustion in the proposed unit is 5 lbs/hr and 22 TPY.

No. 2 fuel oil is burned when natural gas is not available. No. 2 fuel oil will not be used in this unit for more than 30 days per year. The maximum emissions from burning No. 2 fuel oil in the proposed vaporizer are shown in Table 1.

Table 1
No. 7 Dowtherm Vaporizer Emissions

Pollutant	Emissions*	
	lbs/hr	TPY
Particulate Matter	0.4	0.14
Sulfur Dioxide	13.2	4.8
Nitrogen Oxide	4	1.4

*Burning 186 GPH of No. 2 fuel oil with 0.5 percent sulfur for 30 days.

II. Rule Applicability

A. State Regulations

The proposed project, installation of a 26 MMBtu/hr Dowtherm vaporizer at an existing nylon chemical plant (SIC 2821), is subject to preconstruction review under the provisions of Chapter 403, FS, and Chapter 17-2, FAC.

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

The facility is a major source of volatile organic compounds (Rule 17-2.100, FAC) 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 of Chapter 17-2, FAC.

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

As the area that the proposed unit will be located in is designated attainment or unclassifiable for all criteria pollutants, it is not subject to new source review for nonattainment areas (Rule 17-2.510(2)(a)1., FAC). The sources are subject to Rule 17-2.520, FAC, Sources Not Subject to PSD or Nonattainment Requirements. Control of emissions shall be based on Rule 17-2.600(6), FAC, Fossil Fuel Steam Generators with Less than 250 Million Btu per Hour Heat Input, New and Existing Sources.

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

Natural gas and No. 2 fuel oil are considered to be clean burning fuels. The sulfur dioxide emissions listed in Table 1 for No. 2 fuel oil combustion were based on a sulfur content of 0.5 percent that was established by a BACT determination (draft attached). The other estimated emissions shown in Section II are based on AP-42 factors for industrial boilers.

No air pollution control system is proposed for this unit. Generally, air pollution control systems are not required on a

boiler that burns only clean fuels such as natural gas and No. 2 fuel oil.

IV. Ambient Air Impact

Regulations do not require the impact of the emissions from this small of a source to be evaluated. However, the Department reviewed the impact of the estimated emissions from the No. 7 Dowtherm unit. We have reasonable assurance that the proposed unit will not cause a violation of any ambient air quality standard.

V. Conclusion

Based on information contained in the application, the Department has concluded that the Company can construct and operate the proposed No. 7 Dowtherm (Therminol®) vaporizer in compliance with all applicable air pollution control regulations. The Department proposes to issue a permit to construct the proposed vaporizer.

The General and Specific Conditions listed in the proposed permit (attached) will assure compliance of the vaporizer with the Department's air pollution regulations.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

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

Permit Number: AC 17-143776
Expiration Date: March 1, 1991
County: Escambia
Latitude/Longitude: 30° 35' 35" N
87° 14' 50" W
Project: No. 7 Dowtherm Vaporizer

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:

For the construction of a 26 MMBtu/hr natural gas fired (No. 2 fuel oil back-up) Dowtherm (Therminol®) Vaporizer unit that shares a 125 foot high, 2.67 ft. diameter stack with the existing No. 6 vaporizer at the permittee's chemical plant located near State Road 749, Gonzalez, Escambia County, Florida. The UTM coordinates of this source are Zone 16, 475.6 km East and 3384.6 km North.

Construction shall be in accordance with the permit application and plan, documents, amendments, and drawings submitted, except as noted in the Preliminary Determination or the Specific Conditions.

Attachments are as follows:

1. Application received on January 6, 1988.
2. DER letter dated January 13, 1988.
3. Monsanto letter dated February 9, 1988.
4. BACT Determination.

PERMITTEE:
Monsanto Company

Permit Number: AC 17-143776
Expiration Date: March 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 or 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.

PERMITTEE:
Monsanto Company

Permit Number: AC 17-143776
Expiration Date: March 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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Monsanto Company

Permit Number: AC 17-143776
Expiration Date: March 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:

- (x) 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.

PERMITTEE:
Monsanto Company

Permit Number: AC 17-143776
Expiration Date: March 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 maximum allowable heat input is a total of 26 million Btu per hour. This is the heat input at which compliance with emission standards shall be demonstrated.
2. Visible emissions shall not exceed 15% opacity, 6 minute average.
3. Visible emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the source is capable of compliance at the permitted maximum operating rate. Tests shall be conducted in accordance with EPA Method 9. Such

PERMITTEE:
Monsanto Company

Permit Number: AC 17-143776
Expiration Date: March 1, 1991

SPECIFIC CONDITIONS:

tests shall be conducted annually. More frequent tests may be required if Department inspections show a need for such tests. The District shall be notified 15 days prior to any compliance test.

4. Number 2 fuel oil containing a maximum of 0.5% sulfur is permitted if gas fuels are unobtainable. In such a case, the permittee must notify the DER with as much time as possible of the emergency need and a visible emissions test shall be performed on each vaporizer using fuel oil.

5. Number 2 fuel oil consumption is limited to 30 days operation and 133,920 gallons per year.

6. The unit may operate continuously, 8760 hours per year.

7. The applicant will demonstrate compliance with the conditions of this construction permit and submit a complete application for an operating permit to the Northwest District at least 90 days prior to the expiration date of this permit or 45 days after placing the unit in service, whichever date occurs first. The applicant may continue to operate in compliance with all terms of this construction permit until its expiration or until issuance of an operating permit.

8. An operation report (DER Form 17-1.202(6)) shall be submitted to the district office annually.

Issued this _____ day of _____, 19 _____

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

Dale Twachtmann, Secretary

Best Available Control Technology (BACT) Determination
Monsanto Chemical Company
Escambia County

The applicant plans to construct and operate a 26 MMBtu/hr natural gas fired (No. 2 fuel oil stand-by) Dowtherm (Therminol®) vaporizer. The vaporizer may burn natural gas continuously (8760 hrs/yr) or No. 2 fuel oil, when natural gas isn't available, for up to 30 days per year.

A BACT determination is required for this source as set forth in Florida Administrative Code Rule 17-2.600(6), FAC, Fossil Fuel Steam Generators with Less than 250 Million Btu per Hour Heat Input, new and Existing Sources.

BACT Determination Requested by the Applicant:

Particulate matter and sulfur dioxide emissions to be controlled by firing natural gas or No. 2 distillate fuel oil with low sulfur and ash content.

Date of Receipt of a BACT Application:

January 6, 1988

Review Group Members:

This determination is based on comments received from the Stationary Source Control Section staff.

BACT Determination by DER:

The amount of particulate matter and sulfur dioxide emissions from the Dowtherm vaporizer to be controlled by firing natural gas or No. 2 distillate fuel oil having a maximum sulfur content of 0.5% by weight.

Visible Emission: Not to exceed 15% opacity,
6 minute average

Reference Method 9 as described in 40 CFR 60, Appendix A, shall be used to determine compliance with the opacity standard.

BACT Determination Rationale:

The Department agrees with the applicant's proposal that the firing of natural gas or low sulfur/ash content No. 2 distillate fuel oil represents BACT for this source. The distillate fuel oil should not contain more than 0.5% sulfur by weight. Sulfur in the fuel oil is a primary air pollution concern.

Particulate matter emissions can be measured indirectly by observing the visible emissions from source sources. A properly designed, operated, and maintained vaporizer firing low sulfur and ash fuels will have visible emissions of less than 15 percent opacity.

Details of the Analysis may be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended By:

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

Date: _____

Dale H. Twachtmann, Secretary

Date: _____

Express Mail
B 21515657
Mailed 2-10-88
Pensacola, FL

File Copy

DER

Monsanto

FEB 11, 1988 (mm)

BAQM

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

February 9, 1988

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

Dear Mr. Fancy:

Attached is the additional information regarding File No. AC 17-143776, No. 7 Dowtherm Vaporizer requested in your January 13, 1988 letter to Mr. W.J. Board. The following Item Numbers correspond to the Item Numbers of your January 13, 1988 letter.

- Item No. 1 - The zip code for Cantonment Florida is 32533
- Item No. 2 - The UTM coordinates for the proposed source are
Zone 16
4 75 650 meters East
33 84 650 meters North
- Item No. 3 - Attached are letters of authorization for the Plant Manager, Mr. R.F. Crone, Jr., and Mr. W.J. Board.
- Item No. 4 - Attached is a calculation of emissions from the No. 7 Vaporizer when burning No. 2 fuel oil.
- Item No. 5 - The proposed Vaporizer Unit will comply with Florida Chapter 17-2.610(2) - General Visible Emission Standard of 20% opacity.
- Item No. 6 - Because of the low particulate and Sulfur Dioxide emissions, it appears that BACT does not apply. However, for this small fossil fuel burning unit, BACT for particulates and SO2 control would most likely be burning of natural gas or No. 2 fuel oil rather than burning of No. 6 fuel oil. Sulfur Dioxide would be controlled by use of low sulfur fuels and particulates would be controlled by low ash content fuels.

1073.BPM

POST OFFICE TO ADDRESSEE EXPRESS MAIL NEXT DAY SERVICE



B 21515657

For Postal Use

ORIGIN	Date In: 2-10-88	Postage \$ 1.75
Post Office ZIP Code: 32560	Time In: 11:45 A.M.	Return Receipt Fee \$
Initials of Receiving Clerk: UTH	Weight: lbs. oz.	Total Postage & Fees \$ 1.75

Accepted for next day delivery.
 Accepted for this destination after deposit deadline for next day delivery therefore, for delivery by second day.
 (Consult your local Express Mail Next Day Service directory for deposit deadlines for different destinations.)
 International On Demand: Country Code _____

For Customer Use

Account Number _____
 (Using an authorized number indicates postage and fees paid.)
 Express Mail Corporate Account No.: _____
 Federal Agency Control No.: _____

FROM:
 Bruce M. McLeod
 Monsanto
 P.O. Box 12630
 Pensacola, FL 32576

DESTINATION	Date of Delivery: 2/11	Time of Delivery: 11:55 A.M.
X Signature of Addressee or Agent: _____		
DELIVERY WAS ATTEMPTED	Date: _____	Time: _____ A.M. P.M.
Signature of Delivery Employee: _____		

WAIVER OF SIGNATURE AND INDEMNITY

I wish delivery to be made without obtaining the signature of the addressee or the addressee's agent and I authorize the delivery employee to sign that the shipment was delivered and understand that the signature of the delivery employee will constitute valid proof of delivery.

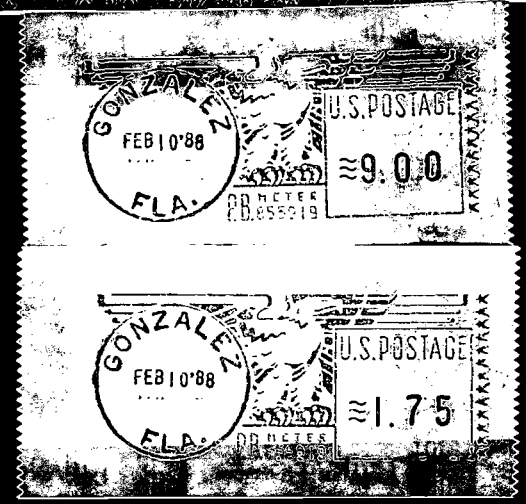
SIGNED: _____

ADDRESSEE'S COPY

TO: Telephone Number: _____

Mr. C.H. Farny, P.E.
 Deputy Chief Bureau of Air Quality Management
 Dept. of Environmental Regulation
 2600 Blair Stone Road
 Tallahassee, FL 32399-2400

Label 11-B (Jan. 1987)



2-11-88

CFI
 BTI } F4I

(4)

Since the Pensacola Plant has six existing Therminol vaporizer units, it would be helpful for the permit conditions of this unit to be consistent with the other six units. A copy of the specific conditions for the existing units is attached for reference.

Additionally, the maximum heat input of the No. 7 Vaporizer has been reduced from 35 million BTU's per hour to 26 million BTU's per hour. Updated pages number 4, 5, 6, and several calculation pages are attached. Please incorporate these into the current permit application. Emissions estimates have decreased because the maximum heat input of the No. 7 Vaporizer has been reduced.

If you have any questions, please contact me at Area Code 904-968-8725.

Sincerely,



Bruce P. McLeod
Senior Specialist
Environmental Control


cc: Mr. W.J. Board

Attachments

Copied: Willard Nembro

E. Middlewart, NW Dist.

CHF/BT

} 2-14-88 

Monsanto

DER
FEB 11
BAQM

MONSANTO FIBERS & INTERMEDIATES CO.
800 N. Lindbergh Boulevard
St. Louis, Missouri 63167
Phone: (314) 694-1000

SIGNATORY AUTHORIZATION TO
PERMIT PROGRAM REPORT FORMS

Pursuant to the requirements of the United States Environmental Protection Agency or the appropriate states, the Plant Managers of the following Monsanto Fibers & Intermediates Company plants are hereby authorized to sign all permit applications, reports, and other documents required or requested by governmental environmental authorities:

Chocolate Bayou Plant
Alvin, Texas 77511

Decatur Plant
Decatur, Alabama 35602

Greenwood Plant
Greenwood, South Carolina 29646

Pensacola Plant
Pensacola, Florida 32575

Texas City Plant
Texas City, Texas 77590

Earl N. Brasfield

Earl N. Brasfield
Managing Director
Vice President

Monsanto

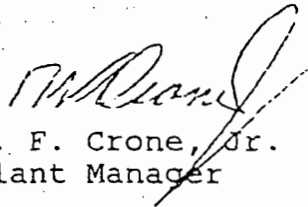
DER
FEB 11
BAQM

MONSANTO FIBERS & INTERMEDIATES COMPANY
P. O. Box 12830
Pensacola, Florida 32575
Phone: (904) 968-7000

May 29, 1986

SIGNATURE AUTHORIZATION FOR ENVIRONMENTAL PERMIT PROGRAM FORMS

The Southeast Regional Director, Governmental Affairs, of Monsanto's Pensacola Plant, is hereby authorized to sign permit applications, reports, and other documents required or requested by government environmental authorities.


R. F. Crone, Jr.
Plant Manager

RFC10

PERMITTEE:
Monsanto Company

I.D. Number: 10/17/0040/05
Permit/Certification Number: A017-63170
Date of Issue: **FEB 22 1983**
Expiration Date: February 1, 1988

GENERAL CONDITIONS:

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurement;
- the person responsible for performing the sampling or measurement;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analysis.

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:

16. The maximum allowable heat input is a total of 82 million BTU per hour. This is the heat input at which compliance with standards shall be demonstrated.

17. Visible emissions shall not exceed 20% opacity under normal operation except for up to 2 minutes in any one hour at not more than 40% opacity.

18. Visible emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the source is capable of compliance at the permitted maximum operating rate. Tests shall be conducted in accordance with EPA method 9. Such tests shall be conducted in 1987 before the end of November to be submitted with the application for renewal of this permit. More frequent tests may be required if Department inspections show a need for such tests.

19. Number 2 fuel oil is permitted if gas fuels are unobtainable. In such a case, the permittee must notify the DER with as much time as possible of the emergency need, and a visible emissions test shall be performed on each vaporizer using fuel oil.

PERMITTEE:
Monsanto Company

I.D. Number: 10/17/0040/05
Permit/Certification Number: A017-63170
Date of Issue: **FEB 22 1983**

Expiration Date: February 1, 1988

SPECIFIC CONDITIONS:

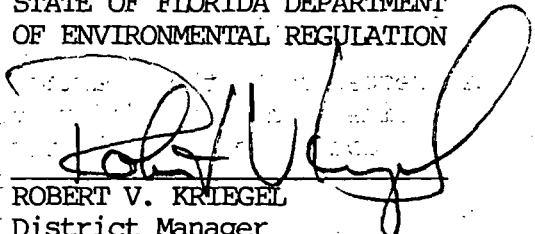
20. An annual operation report (DER Form 17-1.202(6) attached) shall be submitted by March 1 each year. The attached form shall be reproduced by the permittee and used for future annual submittals.

Expiration Date:

February 1, 1988

Issued this 22nd day of Feb,
1983.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


ROBERT V. KRIEGEL
District Manager

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Therminol*	N/A	N/A	N/A	

*Monsanto brand name replacement for Dowtherm

B. Process Rate, if applicable: (See Section V, Item 1)

- 1. Total Process Input Rate (lbs/hr): N/A
- 2. Product Weight (lbs/hr): N/A

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary) Although AP 42 provides emission factors for CO, SO₂, particulates and hydrocarbons, calculations for these pollutants have not been performed because they are negligible compared to NO_x for natural gas burning.

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
NO _x	5	22	N/A	N/A	5	22	2
No. 2 Fuel Oil	(30 Days/Year usage maximum as a standby fuel)						
SO ₂	26	9	N/A	N/A	26	9	2
Particulates	0.4	0.14	N/A	N/A	0.4	0.14	2
NO _x	4	1.4	N/A	N/A	4	1.4	2

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, 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)
NOT APPLICABLE				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural gas	0.025	0.025	26
(No. 2 fuel oil back-up fuel)	186	186	26

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Routine No. 2 fuel oil burning is not anticipated. (See attached fuel oil calculations)
 Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

None expected from this unit.

SEE ATTACHMENT 1

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 125 ft. Stack Diameter: 2.67 ft.

Gas Flow Rate: 7198 ACFM 4029 DSCFM Gas Exit Temperature: 311 °F.

Water Vapor Content: approx. 20 % Velocity: 38 FPS

*combined with unit 6 stack gas flow

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

MONSANTO PENSACOLA
 DOWTHERM (THERMINOL[®]) VAPORIZER #7
Calculation of No. 2 Fuel Oil Emissions

Maximum heat input $26 \times 10^6 \frac{\text{BTU}}{\text{hr}}$

No. 2 Fuel Oil Usage Rate

$$26 \times 10^6 \frac{\text{BTU}}{\text{hr}} \times \frac{1 \text{ gal}}{140,000 \text{ BTU}} = 186 \frac{\text{gal}}{\text{hr}}$$

Factors from AP 42 for Industrial Boilers

$$\text{SO}_2 = 142 \frac{(\text{S}) \text{ lbs}}{1000 \text{ gal}} \quad \text{S} = 1\% \text{ max Sulfur}$$

$$\text{Particulates} = 2 \frac{\text{lbs}}{1000 \text{ gal}}$$

$$\text{NOX} = 22 \frac{\text{lbs}}{1000 \text{ gal}}$$

No. 2 Fuel Oil usage = 30 $\frac{\text{days}}{\text{year}}$ max per year as a standby fuel

Calculation of SO₂ Emissions

$$186 \frac{\text{gal oil}}{\text{hour}} \times \frac{142(1) \text{ lbs SO}_2}{1000 \text{ gal oil}} = \frac{26 \text{ lbs SO}_2}{\text{hr}}$$

$$26 \frac{\text{lbs SO}_2}{\text{hr}} \times 24 \frac{\text{hours}}{\text{day}} \times 30 \frac{\text{days}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = 9 \frac{\text{tons SO}_2}{\text{year}}$$

Calculation of Particulate Emissions

$$186 \frac{\text{gal oil}}{\text{hour}} + 2 \frac{\text{lbs particulate}}{1000 \text{ gal oil}} = 0.4 \frac{\text{lbs particulate}}{\text{hour}}$$

2-10-88

NO. 2 FUEL OIL EMISSIONS (con't)

$$0.4 \frac{\text{lbs}}{\text{hour}} \text{ particulate} \times 24 \frac{\text{hrs}}{\text{day}} \times 30 \frac{\text{days}}{\text{year}} \times 1 \frac{\text{ton}}{2000 \text{ lbs}} = 0.14 \frac{\text{tons}}{\text{year}} \text{ particulate}$$

Calculation of NOX Emissions

$$186 \frac{\text{gal}}{\text{hour}} \times 22 \frac{\text{lbs NOX}}{1000 \text{ gal}} = 4 \frac{\text{lbs NOX}}{\text{hour}}$$

$$4 \frac{\text{lbs NOX}}{\text{hour}} \times 24 \frac{\text{hours}}{\text{day}} \times 30 \frac{\text{days}}{\text{year}} \times 1 \frac{\text{ton}}{2000 \text{ lbs}} = 1.4 \frac{\text{tons NOX}}{\text{year}}$$

2-10-88

MONSANTO PENSACOLA
DOWTHERM (THERMINOL^R) VAPORIZER #7
CALCULATION OF EMISSIONS

AP 42 Emission Factors: Natural Gas

$$\text{NOx: } \frac{150 \text{ lbs. NOx}}{10^6 \text{ ft}^3 \text{ gas}}$$

Calculation of NOx Emissions

$$\begin{aligned} 25,000 \frac{\text{ft}^3 \text{ gas}}{\text{hr}} \times \frac{150 \text{ lbs. NOx}}{10^6 \text{ ft}^3 \text{ gas}} &= \frac{3.75 \text{ lb NOx}}{\text{hr}} \\ &= \frac{16.4 \text{ tons NOx}}{\text{yr}} \end{aligned}$$

Since no abatement technology is applied, (other than fuel selection) actual = potential emissions

Revised 2-10-88

MONSANTO PENSACOLA
DOWTHERM (THERMINOL^R) VAPORIZER #7

Calculation of Stack Flow Rate

from Perry's Chemical Engineers Handbook, 4th edition, Pg 8-9.

Products of Combustion

<u>Flue Gas Components</u>	<u>Ft³ Flue Gas</u>	<u>Ft³ Natural Gas</u>
CO ₂	1.17	
H ₂ O	2.16	= approximately 20%
N ₂	8.50	H ₂ O flue gas
Total Dry	9.67	
Total Wet	11.83	

Calculation of SCFM of Flue Gas

$$25,000 \frac{\text{ft}^3 \text{ gas}}{\text{hr}} \times \frac{1 \text{ hr}}{60 \text{ min}} \times \frac{9.67 \text{ ft}^3 \text{ (dry)}}{1 \text{ ft}^3 \text{ gas}} = 4029 \text{ SCFMD}$$

$$4029 \times \frac{11.83}{9.67} \times \frac{(311 + 460)^\circ\text{R}}{(68^\circ + 460)^\circ\text{R}} = 7198 \text{ ACFM}$$

Revised 2-10-88

MONSANTO PENSACOLA
DOWTHERM (THERMINOL^R) VAPORIZER #7

Calculation of Stack Gas Velocity

Therminol Vaporizer #7 will share the stack of Vaporizer #6

Stack vol. rate #6 3033 SCFM = 5418 ACFM

Stack vol. rate #7 5479 SCFM = 7198 ACFM

Total 12,616 ACFM

$$\text{Vel} = \frac{\text{vol. rate}}{\text{area}} = \frac{12,616 \text{ ft}^3/\text{min} \times \underline{1 \text{ min}}}{\frac{(32/2)^2}{(12)} \times \pi \quad 60 \text{ sec} \quad \underline{\underline{\text{sec}}}} = 38 \text{ ft}$$

Revised 2-10-88

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.

2. Restricted Delivery.

3. Article Addressed to: Mr. W.J. Board
Monsanto Chemical Company
P.O. Box 12830
Pensacola, FL 32575

4. Type of Service:	Article Number
<input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail	P 274 010 477

Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature - Addressee
X

6. Signature - Agent
X *[Signature]*

7. Date of Delivery
1/14/88

8. Addressee's Address (ONLY if requested and fee paid)

DOMESTIC RETURN RECEIPT



P 274 010 477

RECEIPT FOR CERTIFIED MAIL

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

* U.S.G.P.O. 1985-480-794

Sent Mr. W.J. Board	
Street and No. Monsanto Chemical Company	
P.O. Box P.O. Box 12830	
P.O., State and ZIP Code Pensacola, FL 32575	
Postage	\$
Certified Fee	
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	\$
Postmark or Date Mailed: 01-13-88 Permit: AC 17-143776	

PS Form 3800, June 1985

Jie

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

January 13, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. W. J. Board
General Superintendent
Monsanto Company
Post Office Box 12830
Pensacola, Florida 32575

Dear Mr. Board:

Re: File No. AC 17-143776, No. 7 Dowtherm Vaporizer

The Department has made a preliminary review of your application for permit to construct the No. 7 Dowtherm Vaporizer at Monsanto Company's Escambia County facility. Before this application can be processed, we need the following information:

1. Zip Code for Cantonment, Florida.
2. UTM coordinates for the proposed source.
3. Letter of authorization for the agent signing the application for Monsanto Company.
4. Estimate the emissions (lbs/hr and TPY) from the proposed unit when it is burning No. 2 fuel oil.
5. Estimate the visible emissions from the proposed unit.
6. Recommend BACT for particulate matter and sulfur dioxide for the proposed unit.

We will resume processing the application after we receive the requested information. If you have any question 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: J. Preece
B. McLeod, P.E.

AC 17-143776
Receipt # 117509
2174

Monsanto

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

DER

JAN 06 1988

BAQM

December 30, 1987

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

Dear Mr. Fancy:

Enclosed are four copies of an air pollution application for a Dowtherm Vaporizer unit at the Monsanto Pensacola plant.

Also included is a check for \$100 to cover the application fee. I can be reached at (904) 968-8725 if desired.

Sincerely,



Bruce P. McLeod
Senior Specialist
Environmental Control

BPM/ab

cc: J. G. Wiley - Monsanto

Copies: Willard Hanks
E. Maddewort N.W. Dist } 1.7.88 (mg)

1032.BPM

001031

STATE OF FLORIDA

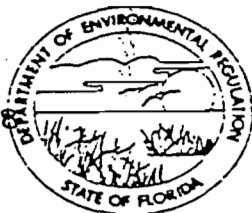
DEPARTMENT OF ENVIRONMENTAL REGULATION

RECEIVED
DER - MAIL ROOM
1988 JAN -5 AM 9 38

DER

JAN 06 1988

BAQM



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

ROBERT V. KRIEGLER
DISTRICT MANAGER

NORTHWEST DISTRICT

160 GOVERNMENTAL CENTER
PENSACOLA, FLORIDA 32501

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Air Pollution [] New¹ [] Existing¹
APPLICATION TYPE: [] 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) #7 Dowtherm Vaporizer

SOURCE LOCATION: Street 3000 Old Chemstrand Road City Cantonment, FL

UTM: East _____ North _____

(approx.) Latitude 30 ° 35 ' 35 "N Longitude 87 ° 14 ' 50 "W

APPLICANT NAME AND TITLE: W. J. Board, General 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: [Signature]

W. J. Board, Gen. Supt., Gov. Affairs/Env. Health & Safety
Name and Title (Please Type)

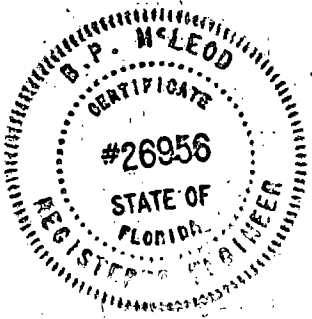
Date: 12-30-87 Telephone No. 904/968-7350

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 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

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

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Bruce P. McLeod, 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)

Florida Registration No. 26956 Date: 12/30/87 Telephone No. 904/968-8725

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Addition of a seventh Dowtherm Vaporizer unit.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction upon permit receipt Completion of Construction 2 1/2 yrs after permit receipt

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Not applicable

Consistent with available technology, no pollution control devices are provided.

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

A017-63170 applies to six existing Dowtherm Vaporizers. This unit will share a vent stack with existing Vaporizer #6.

E. Requested permitted equipment operating time: hrs/day 24; days/wk 7; wks/yr 52;
if power plant, hrs/yr _____; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

- | | |
|---|------------|
| 1. Is this source in a non-attainment area for a particular pollutant? | <u>No</u> |
| a. If yes, has "offset" been applied? | <u>N/A</u> |
| b. If yes, has "Lowest Achievable Emission Rate" been applied? | <u>N/A</u> |
| c. If yes, list non-attainment pollutants. _____ | <u>N/A</u> |
| 2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. | <u>No</u> |
| 3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. | <u>No</u> |
| 4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? | <u>No</u> |
| 5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? | <u>No</u> |
| H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? | <u>N/A</u> |
| a. If yes, for what pollutants? _____ | |
| 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.

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Therminol*	N/A	N/A	N/A	

*Monsanto brand name replacement for Dowtherm

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): N/A
2. Product Weight (lbs/hr): N/A

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary) Although AP 42 provides emission factors for CO, SO₂, particulates and hydrocarbons, calculations for these pollutants have not been performed because they are negligible compared to NO_x for natural gas burning.

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
NO _x	5	22	N/A	N/A	5	22	2

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, 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)
NOT APPLICABLE				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural gas	0.034	0.034	35
(No. 2 fuel oil back-up fuel)			35

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Routine No. 2 fuel oil burning is not anticipated.

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

None expected from this unit.

SEE ATTACHMENT 1

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 125 ft. Stack Diameter: 2.67 ft.
 Gas Flow Rate: 9798 ACFM 5479 DSCFM Gas Exit Temperature: 311 °F.
 Water Vapor Content: approx.20 % Velocity: 45* FPS
 *combined with unit 6 stack gas flow

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____
 Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____
 Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____
 Manufacturer _____
 Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____
 Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

NOT APPLICABLE

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOT APPLICABLE

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: 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.
3. 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 airborne 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.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:

2. Operating Principles:

3. Efficiency:*

4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft.
- b. Diameter: ft.
- c. Flow Rate: ACFM
- d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Costs:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(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

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ () SO₂* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

- a. Was instrumentation EPA referenced or its equivalent? [] Yes [] No
- b. Was instrumentation calibrated in accordance with Department procedures?
[] Yes [] No [] Unknown

B. Meteorological Data Used for Air Quality Modeling

- 1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year
- 2. Surface data obtained from (location) _____
- 3. Upper air (mixing height) data obtained from (location) _____
- 4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

- 1. _____ Modified? If yes, attach description.
- 2. _____ Modified? If yes, attach description.
- 3. _____ Modified? If yes, attach description.
- 4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO ²	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

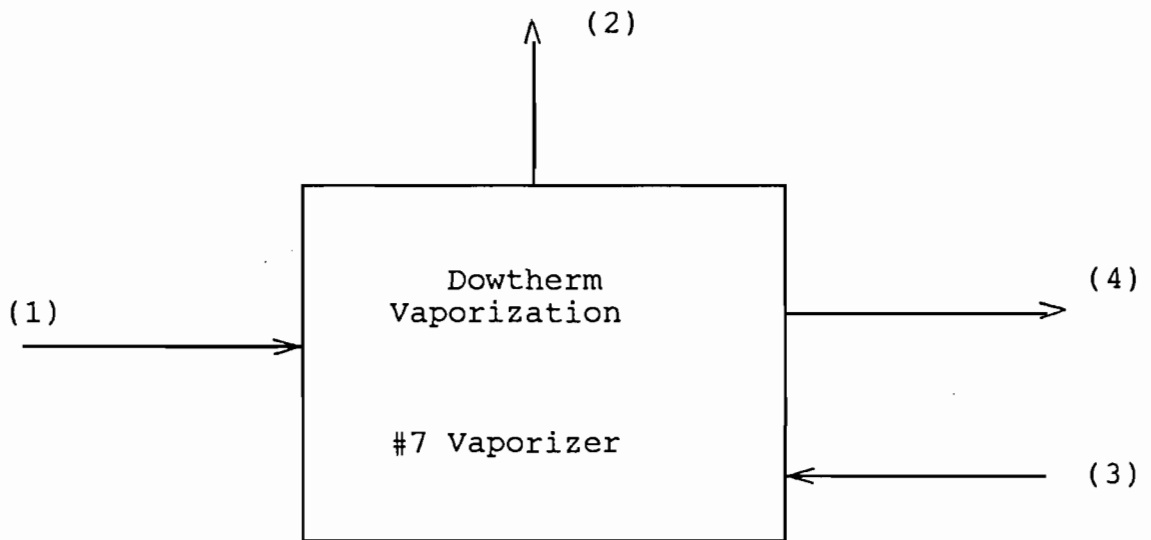
F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. 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, FLORIDA

DOWTHERM VAPORIZATION
PROCESS SCHEMATIC



- (1) Natural Gas
- (2) Stack Discharge, NOx
- (3) Dowtherm, Liquid
- (4) Dowtherm, Vapor

MONSANTO PENSACOLA
DOWTHERM (THERMINOL^R) VAPORIZER #7
CALCULATION OF EMISSIONS

AP 42 Emission Factors

$$\text{NOx: } \frac{150 \text{ lbs. NOx}}{10^6 \text{ ft}^3 \text{ gas}}$$

Calculation of NOx Emissions

$$\begin{aligned} 34,000 \frac{\text{ft}^3 \text{ gas}}{\text{hr}} \times \frac{150 \text{ lbs. NOx}}{10^6 \text{ ft}^3 \text{ gas}} &= \frac{5 \text{ lb NOx}}{\text{hr}} \\ &= \frac{22 \text{ tons NOx}}{\text{yr}} \end{aligned}$$

Since no abatement technology is applied, actual = potential emissions

MONSANTO PENSACOLA
DOWTHERM (THERMINOL^R) VAPORIZER #7

Calculation of Stack Flow Rate

from Perry's Chemical Engineers Handbook, 4th edition, Pg 8-9.

Products of Combustion

<u>Flue Gas Components</u>	<u>Ft³ Flue Gas</u> <u>Ft³ Natural Gas</u>	
CO ₂	1.17	
H ₂ O	2.16	= approximately 20%
N ₂	8.50	H ₂ O flue gas
Total Dry	9.67	
Total Wet	11.83	

Calculation of SCFM of Flue Gas

$$34,000 \frac{\text{ft}^3 \text{ gas}}{\text{hr}} \times \frac{1 \text{ hr}}{60 \text{ min}} \times \frac{9.67 \text{ ft}^3 \text{ (dry)}}{1 \text{ ft}^3 \text{ gas}} = 5479 \text{ SCFMD}$$

$$5479 \times \frac{11.83}{9.67} \times \frac{(311 + 460)^\circ\text{R}}{(68^\circ + 460)^\circ\text{R}} = 9789 \text{ ACFM}$$

MONSANTO PENSACOLA
DOWTHERM (THERMINOL^R) VAPORIZER #7

Calculation of Stack Gas Velocity

Therminol Vaporizer #7 will share the stack of Vaporizer #6

Stack vol. rate #6 3033 SCFM = 5418 ACFM

Stack vol. rate #7 5479 SCFM = 9789 ACFM

Total 15,207 ACFM

$$\text{Vel} = \frac{\text{vol. rate}}{\text{area}} = \frac{15,207 \text{ ft}^3/\text{min} \times 1 \text{ min}}{\left[\frac{(32/2)}{(12)} \right]^2 \times \pi \times 60 \text{ sec}} = 45 \frac{\text{ft}}{\text{sec}}$$

87°18'

87°15'

87°12'

30°37'

30°34'

#7 DOWTHERM

VAPORIZOR

HWY. 29

GONZALEZ

HWY. 297

HWY. 292

"MONSANTO"

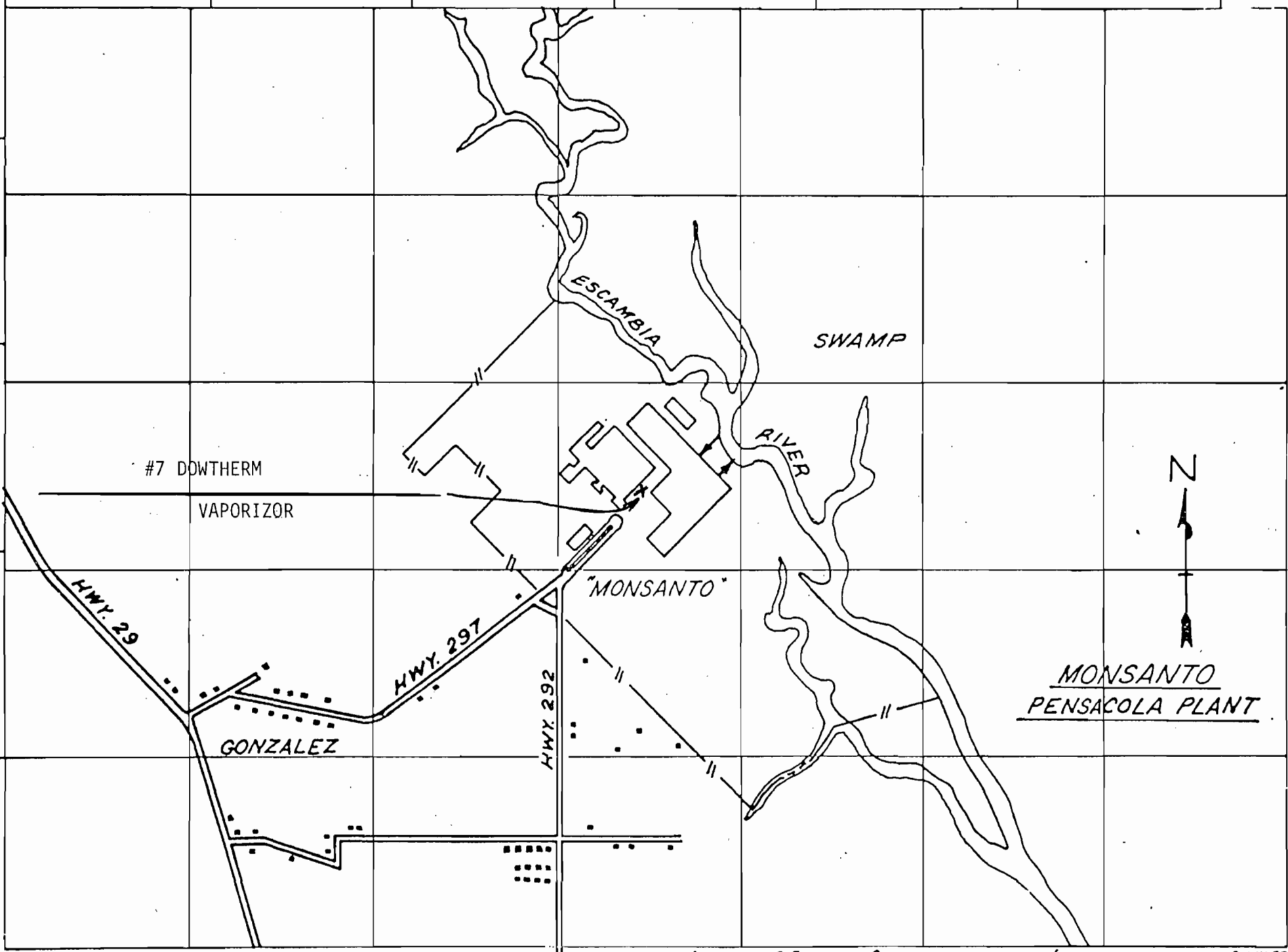
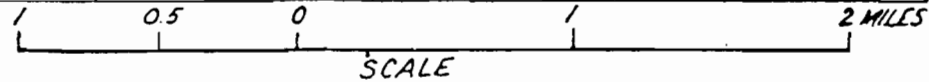
ESCAMBIA

RIVER

SWAMP



MONSANTO
PENSACOLA PLANT



ATTACHMENT 1

MONSANTO-PENSACOLA

Stack flow data if stack modification is required.

Flow restrictions, caused by the flue gas stack, may require removal of approximately the top 10 ft. of the stack. If this is necessary the Section III Part H Emission stack geometry and the flow characteristics will be as follows:

Stack Height	115 ft. (approx)
Stack Diameter	3.67 ft. (approx)
Velocity	24 fps (approx)

Other parameters are not expected to change significantly.



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, General Superintendent
Monsanto Chemical Company
Post Office Box 12830
Pensacola, Florida 32575

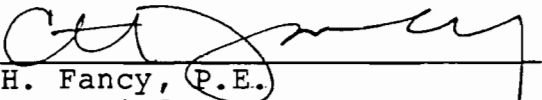
June 14, 1988

Enclosed is construction permit No. AC 17-143776 for Monsanto Chemical Company to construct the No. 7 Dowtherm Vaporizer at the chemical facility located near Gonzalez in Escambia County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any Party to these permit has the right to seek judicial review of the permits 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 these permits are 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:

Jack Preece, NW District
Bruce McLeod, P.E.

Final Determination

Monsanto Company
Pensacola, Florida
Escambia County

No. 7 Dowtherm (Therminol®) Vaporizer
Permit No. AC 17-143776

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

June 6, 1988

Final Determination

The Technical Evaluation and Preliminary Determination for Monsanto Company's proposed No. 7 Dowtherm Vaporizer (File No. AC 17-143776), which will be located near Gonzalez, Escambia County, Florida, was distributed on April 5, 1988.

Copies of the evaluation were available for public inspection at the Department's offices in Pensacola and Tallahassee. The Notice of Proposed Agency Action for this permit was published in the Pensacola News Journal on April 22, 1988.

The applicant submitted comments on the evaluation in a letter dated April 18, 1988. No other comments were received. The following is a summary of the applicant's comments and the Department's responses.

Specific Condition No. 1

Comment: This condition limited the maximum heat input of the source to the value listed in the application. The applicant requested this limit be deleted and the capacity of the unit be established during the initial demonstration test.

Response: Emissions from this source are a function of the heat input. A review of the data in the application showed the emissions from this source at the heat input listed in the application would comply with the state regulations. Higher heat inputs and emissions will require a new evaluation. As the applicant did not submit data for a higher capacity operation of this source, the request is denied. The Department will consider authorizing a higher capacity for this source after review of a new application for permit to construct.

Specific Condition No. 2

Comment: The applicant questioned the basis for applying a best available control technology determination (BACT) to this source and asked that the visible emission standard be relaxed from 15% opacity, as set by the BACT, to 20% opacity, the general visible emission standard and, also, the standard for small boilers. They offered to test the emissions from this source if the visible emissions exceeded 5% opacity.

Response: The basis of the Bureau subjecting this source to BACT is Rule 17-2.600(6), FAC. This rule requires the Department to establish particulate matter and sulfur dioxide emission standards for small fossil fuel fired steam generators by a BACT determination. The Dowtherm Vaporizer is identical to a fossil fuel fired steam generator except that it uses an organic fluid instead of water as the heat transfer medium. The Bureau

believes BACT applies because the mechanism for generating and controlling air pollutants from the sources are identical. However, we find the applicant's request of substituting an emission test for particulate matter if visible emissions exceed 5% opacity acceptable and have modified the BACT to the mass emission standards listed in the application and the publication AP-42, Emission Factors. Specific Condition No. 2 was changed to require a particulate matter emission test if visible emissions exceed 5% opacity.

Specific Condition No. 3

Comment: The applicant objected to the construction permit specifying any permit to operate for this source to require an annual visible emissions test as part of the annual report. They asked that the permit to construct specify the initial compliance tests requirements and allow the District to specify the annual testing requirements in the permit to operate.

Response: The Bureau routinely specifies minimum testing requirements for annual reports in permits to construct to assure that the parameters needed to provide reasonable assurance that a source is operating in compliance with the regulations are obtained. For any emission limit to be valid, the test requirements must be specified in the permit to construct according to EPA. For this source, the District was consulted and said they will require an annual visible emissions test during any year oil is burned in the source. Specific Condition No. 3 has been reworded to clarify the visible emissions testing requirement to be listed in any permit to operate issued for the proposed source.

The final action of the Department will be to issue the permit to construct as proposed in the Technical Evaluation and Preliminary Determination except for the changes discussed above.



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 17-143776
Expiration Date: March 1, 1991
County: Escambia
Latitude/Longitude: 30° 35' 35" N
87° 14' 50" W
Project: No. 7 Dowtherm Vaporizer

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:

For the construction of a 26 MMBtu/hr natural gas fired (No. 2 fuel oil back-up) Dowtherm (Therminol®) Vaporizer unit that shares a 125 foot high, 2.67 ft. diameter stack with the existing No. 6 vaporizer at the permittee's chemical plant located near State Road 749, Gonzalez, Escambia County, Florida. The UTM coordinates of this source are Zone 16, 475.6 km East and 3384.6 km North.

Construction shall be in accordance with the permit application and plan, documents, amendments, and drawings submitted, except as noted in the Preliminary Determination or the Specific Conditions.

Attachments are as follows:

1. Application received on January 6, 1988.
2. DER letter dated January 13, 1988.
3. Monsanto letter dated February 9, 1988.
4. BACT Determination.
5. Monsanto letter dated April 18, 1988.

PERMITTEE:
Monsanto Company

Permit Number: AC 17-143776
Expiration Date: March 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 or 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.

PERMITTEE:
Monsanto Company

Permit Number: AC 17-143776
Expiration Date: March 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 noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Monsanto Company

Permit Number: AC 17-143776
Expiration Date: March 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:

- (x) 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.

PERMITTEE:
Monsanto Company

Permit Number: AC 17-143776
Expiration Date: March 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 maximum allowable heat input is a total of 26 million Btu per hour. This is the heat input at which compliance with emission standards shall be demonstrated.

2. If visible emissions exceed 5% opacity, 6 minute average, the permittee shall notify the District office and conduct a particulate matter test by Method 5 (40 CFR 60, Appendix A) within 15 days of the observation.

PERMITTEE:
Monsanto Company

Permit Number: AC 17-143776
Expiration Date: March 1, 1991

SPECIFIC CONDITIONS:

3. Visible emissions tests are required to show continuing compliance with the standards of the Department. The test results must provide reasonable assurance that the source is capable of compliance at the permitted maximum operating rate. Tests shall be conducted in accordance with EPA Method 9. Such tests shall be conducted prior to the expiration date of this construction permit and each year distillate oil is burned in the vaporizer. More frequent tests may be required if Department inspections show a need for such tests. The District shall be notified 15 days prior to any compliance test.

4. Number 2 fuel oil containing a maximum of 0.5% sulfur is permitted if gas fuels are unobtainable. In such a case, the permittee must notify the DER with as much time as possible of the emergency need and a visible emissions test shall be performed on each vaporizer using fuel oil.

5. Number 2 fuel oil consumption is limited to 30 days operation and 133,920 gallons per year.

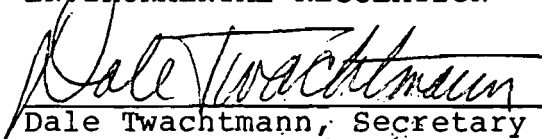
6. The unit may operate continuously, 8760 hours per year.

7. The applicant will demonstrate compliance with the conditions of this construction permit and submit a complete application for an operating permit to the Northwest District at least 90 days prior to the expiration date of this permit or 45 days after placing the unit in service, whichever date occurs first. The applicant may continue to operate in compliance with all terms of this construction permit until its expiration or until issuance of an operating permit.

8. An operation report (DER Form 17-1.202(6)) shall be submitted to the district office annually.

Issued this 8 day of June, 1988

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION


Dale Twachtman, Secretary

Best Available Control Technology (BACT) Determination
Monsanto Chemical Company
Escambia County

The applicant plans to construct and operate a 26 MMBtu/hr natural gas fired (No. 2 fuel oil stand-by) Dowtherm (Therminol®) vaporizer. The vaporizer may burn natural gas continuously (8760 hrs/yr) or No. 2 fuel oil, when natural gas isn't available, for up to 30 days per year.

A BACT determination is required for this source as set forth in Florida Administrative Code Rule 17-2.600(6), Fossil Fuel Steam Generators with Less than 250 million Btu per Hour Heat Input, New and Existing Sources.

BACT Determination Requested by the Applicant:

Particulate matter and sulfur dioxide emissions to be controlled by firing natural gas or No. 2 distillate fuel oil with low sulfur and ash content.

Date of Receipt of a BACT Application:

January 6, 1988

Review Group Members:

This determination is based on comments received from the Stationary Source Control Section staff.

BACT Determination by DER:

The amount of particulate matter and sulfur dioxide emissions from the Dowtherm vaporizer to be controlled by firing natural gas or No. 2 distillate fuel oil having a maximum sulfur content of 0.5% by weight. Maximum emissions are:

<u>Fuel</u>	<u>Particulate Matter</u>	<u>Sulfur Dioxide</u>
Natural Gas	5 lbs/10 ⁶ Ft ³ gas burned	0.6 lbs/10 ⁶ Ft ³ gas burned
Distillate Oil	2 lbs/10 ³ gallons oil burned	71 lbs/10 ³ gallons oil burned or certified fuel oil analysis showing less 0.5 percent sulfur

Reference Methods 5 and 6, as described in 40 CFR 60, Appendix A, shall be used to determine compliance with the emission standards.

BACT Determination Rationale:

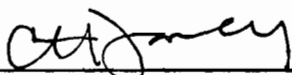
The Department agrees with the applicant's proposal that the firing of natural gas or low sulfur/ash content No. 2 distillate fuel oil represents BACT for this source. The distillate fuel oil should not contain more than 0.5% sulfur by weight. Sulfur in the fuel oil is a primary air pollution concern.

Particulate matter emissions can be measured indirectly by observing the visible emissions from some sources. A properly designed, operated, and maintained vaporizer firing low sulfur and ash fuels will have low visible emissions. Tests for particulate matter and sulfur dioxide will not be required if visible emissions are less than 5 percent opacity and analysis of the distillate oil by appropriate ASTM methods shows 0.5% or less sulfur by weight.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blairstone Road
Tallahassee, Florida 32399-2400

Recommended by:



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

June 6, 1988
Date

Approved by: 

Dale Twachtman, Secretary

8 June 1988
Date



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: Howard L. Rhodes *HLR*
SUBJ: Approval of Permit to Construct the No. 7 Dowtherm Vaporizer for Monsanto Company
State Construction Permit Number: AC 17-143776
DATE: June 6, 1988

Attached for your approval and signature is a permit and BACT prepared by Central Air Permitting for the above mentioned company to construct the No. 7 Dowtherm Vaporizer at their existing chemical plant.

The facility is located in near Gonzalez, Escambia County, Florida. Comments were received during the public notice period. The Bureau was not in agreement with some of the comments.

Day 90, after which this permits will be issued by default, is June 30, 1988.

I recommend your approval and signature.

HLR/aqm/wh
attachments

RECEIVED

JUN 9 1988

DER-BAQM