

- ① Mike Harley FYJ
② Jim Pennington FYJ
③ Al Livers
④ ~~the~~ Heather Hirst
(to Monsanto/Pensacola
Maleic anhydride plant
permanent file)

Monsanto

THE CHEMICAL GROUP
P.O. Box 97
Gonzalez, FL 32560-0097
Phone: (904) 968-7000

RECEIVED

OCT 8 1996

BUREAU OF
AIR REGULATION

October 1, 1996

Mr. Winston Smith, Chief
Air Management Branch
Environmental Protection Agency, Region IV
100 Alabama Street, SW
Atlanta, Georgia 30303

Dear Mr. Smith:

This letter is submitted to fulfill the semi-annual reporting requirements in 40 CFR 60.487(c) for the maleic anhydride process unit at Monsanto Company's Pensacola plant.

As first noted in L. L. Brown's letter to J. T. Wilburn dated April 16, 1984, the Maleic unit has elected to comply with the allowable percentage of valves leaking as specified in 40 CFR 60.483-1. The annual performance test was conducted on September 16, 1996. One valve was found to be leaking, yielding a leak percentage of 0.22 percent. The leaking valve was repaired as required in 60.482-7(d)(1) on September 16, 1996. Two pumps were in compliance, with no leaks detected.

During the reporting period, two valves were added and five valves were deleted from the inventory. This brings the total number to 451 valves in service. Between April 1 and September 30, 1996, the "process unit shutdowns" were as follows: (1) May 14-15, 1996; (2) June 17, 1996; and (3) September 24, 1996.

Sincerely,



D. R. Collins
Senior Environmental Engineer

c: E. Middleswart, DEP, Pensacola
PSD Coordinator, DEP, Tallahassee

Monsanto

THE CHEMICAL GROUP
P.O. Box 97
Gonzalez, FL 32560-0097
Phone: (904) 968-7000

RECEIVED

JUL 17 1995

July 11, 1995

Bureau of
Air Regulation

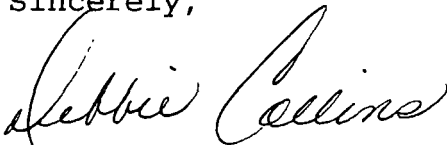
PSD Coordinator
Bureau of Air Quality Management
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

Dear PSD Coordinator:

Attached is the report of Excess Emissions from Monsanto's Maleic Anhydride Production Facility, (Permit AC17-250268, Source ID 10PEN17004076) for the second quarter of 1995. I have also attached details of waste gas venting to satisfy the reporting requirements of 40 CFR, Part 60, Subpart III, for the Maleic Anhydride facility.

If you have any questions concerning this information, please contact me at 904/968-8839.

Sincerely,



D. R. Collins
Engineer
Environmental Control

Attachment

c: Air Compliance Section, DEP, Pensacola
Route Copy 1:
P. Guidone - 101
R. Turner - 478
P. Knight (retain) - 444
Route Copy 2:
J. Wiley - 601
B. McLeod - 601
J. Ross (retain) - 101T

JIM PENNINGTON 7/17/95

① Willard - Are these big members of VOC? Do we care? Please refer this to whoever else ought get see it. Otherwise send to appropriate PSD file.

al

MONSANTO PENSACOLA

MALEIC ANHYDRIDE PLANT

PERMIT AC17-250268

SOURCE ID 10PEN17004076

QUARTERLY EXCESS EMISSION REPORT
FOR THE SECOND QUARTER 1995

1. There were no occurrences of excess CO emissions from boilers 7 and 8 during the reporting period.
2. No instances of excess venting occurred.

MONSANTO CHEMICAL COMPANY

Maleic Anhydride Facility
Pensacola, Florida

Emissions Assessment Worksheet

DATE	TIME START/STOP	HOURS	STACK FLOW	% COMB.	% CO	CO LBS.	VOC LBS.	COMMENTS
4/25/95	2210/2220	0.17	5610.	0.65	0.42	308.	353.	B8--Malfunction - 2 RXs
5/ 5/95	1430/1520	0.83	6838.	0.40	0.26	1156.	1324.	B8--Malfunction - 2 RXs
5/ 8/95	1510/1525	0.25	6838.	0.70	0.45	607.	695.	B8--Malfunction - 2 RXs
5/11/95	915/ 925	0.17	6838.	1.45	0.94	838.	960.	B8--Malfunction - 2 RXs
5/19/95	1440/1445	0.08	3450.	1.10	0.72	160.	184.	B8--Malfunction - 1 RX
5/21/95	1635/1650	0.25	6838.	1.13	0.74	982.	1126.	B8--Malfunction - 2 RXs
5/27/95	1735/1750	0.25	6838.	1.73	1.13	1502.	1722.	B8--Malfunction - 2 RXs
5/31/95	1155/1200	0.08	6838.	1.10	0.72	318.	364.	B8--Malfunction - 2 RXs
6/ 9/95	30/ 35	0.08	2277.	1.80	1.17	173.	198.	B8--Malfunction - 1 RX
6/10/95	1500/1505	0.08	6838.	0.30	0.20	87.	99.	B8--Malfunction - 2 RXs
6/10/95	1520/1550	0.50	6375.	0.73	0.48	1185.	1358.	B8--Malfunction - 2 RXs
6/15/95	956/1041	0.75	4533.	1.22	0.79	2107.	2414.	B7--Malfunction - 2 RXs
6/28/95	1020/1055	0.58	6736.	0.81	0.53	1622.	1859.	B8--Malfunction - 2 RXs
6/29/95	1940/1950	0.17	6670.	0.60	0.39	338.	387.	B8--Malfunction - 2 RXs

*** TOTAL HOURS: 4.24 TOTAL CO LBS.: 11383. TOTAL VOC LBS: 13043. ***

FORMULAS USED

 $\%CO = 0.65 \times \%combustibles$ $Lbs. CO = \%CO/100 \times (stack\ flow \times 1000) \times 0.078 \times time$ $Lbs. VOC = (\%combustibles - \%CO)/100 \times (stack\ flow \times 1000) \times 0.166 \times time$

MONSANTO CHEMICAL COMPANY

Maleic Anhydride Facility

Pensacola, Florida

Emission Limits and Formulas

Number of Reactors	Startup			Shutdown			Malfunction		
	Maximum Vent Hrs.	Pounds		Maximum Vent Hrs.	Pounds		Maximum Vent Hrs.	Pounds	
		CO	VOC		CO	VOC		CO	VOC
1	1.5	2,625	2,625	1.5	1,313	1,313	6.0	10,500	10,500
1	1.5	5,250	5,250	(Second reactor on line; separate startup)					
2	4.0	7,000	7,000	4.0	3,500	3,500	6.0	21,000	21,000
3	6.0	10,500	10,500	6.0	5,250	5,250	6.0	31,500	31,500
4	8.0	14,000	14,000	8.0	7,000	7,000	6.0	42,000	42,000

Formulas used to calculate venting emissions:

$\%CO = 0.65 \times \% \text{ combustibles}$

$\text{Lbs. CO} = \%CO/100 \times (\text{stack flow} \times 1000) \times 0.078 \times \text{time}$

$\text{Lbs. VOC} = (\% \text{comb.} - \%CO)/100 \times (\text{stack flow} \times 1000) \times 0.166 \times \text{time}$

Monsanto

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

RECEIVED

JAN 26 1989

January 25, 1989

DER-BAQM

Mr. Steve Smallwood, P.E.
Director, Division of Air Resources Management
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Smallwood:

Thank you for your personal involvement in expediting approval of the permit amendment for Monsanto's Nitric Acid Production Facility. Your assistance and that of the other involved Department personnel is greatly appreciated.

Mr. Bill Thomas was especially helpful in identifying and clarifying the particular permitting issues and requirements which needed to be addressed to achieve this permit amendment in a timely fashion. During the two months to obtain the permit amendment, Clair Fancy, Mike Harley, Pradeep Ravel, and Patty Adams were very helpful in processing this permit amendment.

I am appreciative of the extra effort that each of these people put forth in this non-routine permitting activity and the professional manner with which it was handled.

Sincerely,



Bruce P. McLeod
Senior Specialist
Environmental Control

c: J. G. Wiley, Monsanto, Pensacola
W. A. Thomas, FDER, Tallahassee

1450.BPM

Express Mail
321524454

file copy

Monsanto

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

VIA OVERNIGHT MAIL

January 9, 1989

RECEIVED
JAN 10 1989
DER-BAQM

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 the Nitric Acid Plant Permit Amendment AC17-2179.

Sincerely,

Bruce P. McLeod

Bruce P. McLeod
Senior Specialist
Environmental Control

Attachment

cc: J. G. Wiley, Monsanto, Pensacola

copied: Pradeep Raval
Ed Middelworth, NW District
Shayne Aronson, EPA

140H.BPM

a unit of Monsanto Company

PENSACOLA News Journal

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, 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

DER Hearing

in the

was published in said newspaper in the issues of

Dec. 7, 1988

Affiant further say that the said The Pensacola Journal is a newspaper published at Pensacola, in said Escambia County, Florida, and that the said newspaper has here 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 states that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in said newspaper.

State of Florida
Department of
Environmental
Regulation
Notice of Issuance

The Department of Environmental Regulation hereby gives notice of its issuance of an amended permit to Monsanto Chemical Company to allow an increase in the production rate of the Nitric Acid Plant E from 1000 tons per day (TPD) 100% acid to 1100 TPD. Based on compliance tests of the plant as built the permittee will reduce the nitrogen oxides (NOx) emission rate from an average of 3.0 lb/ton of acid to 2.72 lb/ton of acid to correspond to the increase in the production rate. This measure will ensure that there will be no emission increase. The project is located at Monsanto's existing facility in Pensacola, Escambia County, Florida.

Persons whose substantial interests are affected by the Department's permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes.

LEGAL NOTICE

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 decision 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

If a petition is filed, the administrative hearing process is designed to formulate agency action. 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,

Any person may send written comments on the permitting action to Mr. Bill Thomas at the Department's Tallahassee address within 14 days of public notice.

Legal No. 35352 IT
Dec. 7, 1988

J. Diane Deal

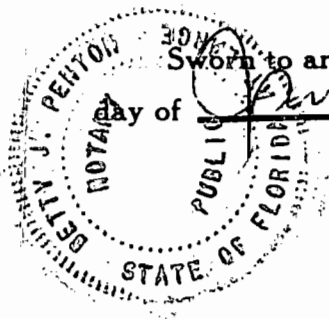
Sworn to and subscribed before me this

day of

A.D., 1989

Betty J. Penton
NOTARY PUBLIC.

My Commission Expires October 26, 1991





DEC 22 1988

4APT-APB

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

PM
12-22-88
Atlanta, Ga.

Main File Copy
AC 17-2179

RECEIVED

DEC 27 1988

DER-BAQM

Mr. Clair Fancy, Deputy Bureau Chief
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Monsanto Chemical Company, Pensacola, Florida

Dear Mr. Fancy:

We have received a letter dated November 30, 1988, from Mr. Dale Twachtman, Secretary, Florida Department of Environmental Regulation (DER), to Mr. Bruce P. McLeod, Monsanto Chemical Company, regarding a permit modification to increase the production capacity of Nitric Acid Plant E at Monsanto's Pensacola facility. Specifically, Monsanto has requested and DER has agreed to increase the permitted production capacity of this facility from 1000 tons per day (TPD) to 1100 TPD of 100 percent (%) acid.

We have reviewed the effects of this proposed change with respect to potential increases in emissions of nitrogen oxides (NO_x) and will concur with DER's determination. We would, however, request that the facility's permit be modified to more adequately reflect the operational parameters used as a basis for this change. As you will recall, Monsanto has found that through the addition of more chilled water cooling to the Nitric Acid Plant absorber column, a 10% decrease in average NO_x emissions has occurred. Although Monsanto has apparently been employing this new process since at least June 1987, we would allow the use of 1984-1985 stack test data for purposes of establishing actual baseline emissions. The 1984-1985 test data reflects an average NO_x emission limit of 2.875 lb NO_x per ton of 100% acid produced. The existing permit for this process limits NO_x emissions to 3.0 lb NO_x per ton of 100% acid produced. Because a net significant emissions increase in NO_x would potentially occur at this existing allowable limit and at the new^x production capacity, Monsanto has agreed to reduce the allowable NO_x emission limit to 2.72 lb NO_x per ton of 100% acid produced. Based^x on both the 1984 and 1985 stack^x test data, however, this new allowable NO_x emission limit would be violated unless Monsanto commits to increasing^x the addition of chilled water cooling to the Nitric Acid Plant absorber column. Therefore, we suggest that the permit issued to Monsanto contain a requirement for the addition of chilled water in an amount sufficient to achieve continuous compliance with the new NO_x emission limit.

Thank you for allowing our input in this matter. If you have any questions, please call me or Mark Armentrout of my staff at (404) 347-2864.

Sincerely yours,

Bruce P. Miller

Bruce P. Miller, Chief
Air Programs Branch
Air Pesticides and Toxics
Management Division

cc: Mr. Bill Thomas ✓
Central Air Permitting
Bureau of Air Quality Management
Florida DER
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

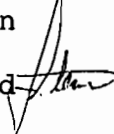
Mr. Robert Kriegel, District Manager ✓
Northwest District
Florida DER
160 Governmental Center
Pensacola, Florida 32501-5794
CHF/AT
Pradeep Raval } 12-27-88 mm



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 
SUBJ: Approval of Amended Construction Permit No. AC 17-2179
for Monsanto's Nitric Acid Plant E.
DATE: November 30, 1988

Attached for your approval and signature is a permit amendment and a cover letter prepared by Central Air Permitting authorizing the above mentioned company to increase the production rate of nitric acid at their existing facility in Pensacola, Escambia County, Florida.

Monsanto has agreed to a more stringent nitrogen oxides (NOx) emission factor than required by the applicable Standards of Performance for New Sources, 40 CFR 60 Subpart G, to ensure that there will be no emission changes.

Since EPA requested that this action be published in a newspaper, a Notice of Issuance is attached to this permit package.

I recommend your approval and signature.

SS/PR/s

attachments



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

SUBJ: Approval of Amended Construction Permit No. AC 17-2179
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DATE: November 30, 1988

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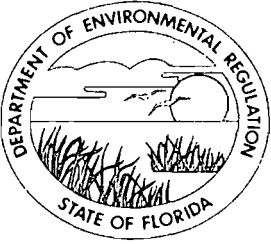
Since EPA requested that this action be published in a newspaper, a Notice of Issuance is attached to this permit package.

I recommend your approval and signature.

SS/PR/s

A handwritten signature, likely of Steve Smallwood, is written over the initials "SS/PR/s".

attachments



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

November 30, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Bruce P. McLeod
Monsanto Chemical Company
Post Office Box 12830
Pensacola, Florida 32575-2830

Dear Mr. McLeod:

Re: Permit Amendment No. AC 17-2179
Nitric Acid Plant E

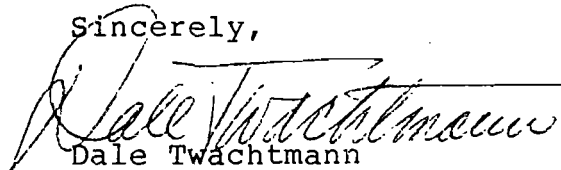
The Department has received and reviewed your request for a permit amendment for the above referenced project.

The Department is in agreement with your request to increase the production capacity of Nitric Acid Plant E from 1000 TPD (tons per day) 100% acid to 1100 TPD while reducing the nitrogen oxides emission rate from an average of 3 lbs/ton of acid to 2.72 lbs/ton, as this will result in no overall emission changes.

The permit conditions of the above referenced permit are amended to reflect the capacity change. Other permit conditions are updated to reflect the current permitting format. The attached amended permit AC 17-2179 shall supercede all previously issued permits for Nitric Acid Plant E.

Please publish the enclosed Notice of Issuance one time only in a major local newspaper of general circulation in the county in which the project is located within 15 days from the receipt of this package. Proof of publication must be sent to the Department within 7 days of publication of the notice.

Sincerely,


Dale Twachtmann
Secretary

DT/ks

cc: R. Kriegel, NW District
W. Aronson, EPA

State of Florida
Department of Environmental Regulation
Notice of Issuance

The Department of Environmental Regulation hereby gives notice of its issuance of an amended permit to Monsanto Chemical Company to allow an increase in the production rate of the Nitric Acid Plant E from 1000 tons per day (TPD) 100% acid to 1100 TPD. Based on compliance tests of the plant as built the permittee will reduce the nitrogen oxides (NOx) emission rate (from an average of 3.0 lb/ton of acid to 2.72 lb/ton of acid) to correspond to the increase in the production rate. This measure will ensure that there will be no emission increase. The project is located at Monsanto's existing facility in Pensacola, Escambia County, Florida.

Persons whose substantial interests are affected by the Department's 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. 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 permitting action to Mr. Bill Thomas at the Department's Tallahassee address within 14 days of public notice.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE and all copies were mailed before the close of business on 11-30-88.

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.

Wendy Rogers
Clerk

11-30-88
Date



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:

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

Permit Number: AC 17-2179 (Amended)

Expiration Date: June 1, 1989

County: Escambia

Latitude/Longitude: 30° 35' 25"N
87° 14' 35"W

Project: Nitric Acid Plant E

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Rules 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 permitting of the Nitric Acid Plant E with a maximum production rate of 1100 tons per day (100% nitric acid), at the existing Monsanto facility in Pensacola, Escambia County, Florida.

Construction shall be in accordance with the permit application and plans, documents, and reference material submitted unless otherwise stated in the General and Specific Conditions herein.

Attachments:

1. Monsanto's request received September 15, 1988.
2. Monsanto's letter received October 10, 1988.
3. Monsanto's test reports received November 8, 1988.
4. Monsanto's letter dated November 10, 1988.
5. Monsanto's test reports received November 14, 1988.

PERMITTEE:
Monsanto Chemical Company

Permit Number: AC 17-2179 (Amended)
Expiration Date: June 1, 1989

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 Chemical Company

Permit Number: AC 17-2179 (Amended)
Expiration Date: June 1, 1989

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 Chemical Company

Permit Number: AC 17-2179 (Amended)
Expiration Date: June 1, 1989

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 noncompliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- (x) 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 Chemical Company

Permit Number: AC 17-2179 (Amended)
Expiration Date: June 1, 1989

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 Nitric Acid Plant E may operate continuously (i.e. 8760 hours/year).
2. The maximum production rate shall not exceed 1100 tons per day of 100% nitric acid.

PERMITTEE:
Monsanto Chemical Company

Permit Number: AC 17-2179 (Amended)
Expiration Date: June 1, 1989

SPECIFIC CONDITIONS:

3. The maximum nitrogen oxides (NOx) emissions from the plant shall not exceed:

- a) 2.72* lbs/ton of acid produced
- b) 124.6 lbs/hr
- c) 546 TPY

*The permittee chose a more restrictive emission limit than required by 40 CFR 60 Subpart G (NSPS) of 3 lbs/ton of acid produced, to avoid additional permit review requirements pursuant to Chapter 17-2 of the Florida Administrative Code (F.A.C.).

4. Visible emissions (VE) shall not exceed 10% opacity.

5. Initial and annual compliance tests shall be conducted in accordance with the 1987 version of 40 CFR 60 Appendix A, using:

- a) EPA Method 7, 7A, 7B, 7C, or 7D for NOx
- b) EPA Method 9 for VE

Other DER approved methods may be used only after prior Departmental approval.

6. The permittee shall calibrate, maintain and operate a continuous monitoring system for NOx in accordance with 40 CFR 60 Subpart G.

7. The permittee shall comply with all the applicable provisions and requirements of F.A.C Rules 17-2, 17-4, and 40 CFR 60 Subpart G.

8. The operation permit shall be amended to reflect the requirements of this permit. An application for that amendment shall be submitted to the Northwest District office at least 90 days prior to the expiration date of this construction permit.

PERMITTEE:
Monsanto Chemical Company

Permit Number: AC 17-2179 (Amended)
Expiration Date: June 1, 1989

Issued this 30 day of November,
1988

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


Dale Twachtman, Secretary

ATTACHMENT 1

Express mail #156154445
9-14-88
Tallahassee, FL

file copy

Monsanto

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

VIA OVERNIGHT MAIL

September 14, 1988

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

RECEIVED
SEP 15 1988
DER-BAQM

Dear Mr. Fancy:

Department permitting guidance is requested. Attached for your reference are the following letters:

1. Bruce P. McLeod to T. W. Moody, June 14, 1988.
2. Robert V. Kriegel to W. J. Board, June 21, 1988.
3. Robert V. Kriegel to Bruce P. McLeod, June 21, 1988.

These letters were initiated to amend the Operating Permit, A017-74429, for the Monsanto, Pensacola plant, Nitric Acid Production Facility.

Department assistance is requested to evaluate whether the Construction Permits for this facility, AC17-2179 and AC17-2026, would preclude operation at rates up to 1100 tons per day. Department guidance, in the event that Construction Permit amendments are necessary, is requested.

Once your staff has reviewed this issue, I would appreciate a call at 904/968-8725, and a written response to me at the letterhead address. Thank you.

Sincerely,



Bruce P. McLeod
Senior Specialist
Environmental Control

Attachments

c: J. G. Wiley, Monsanto, Pensacola

1343.BPM

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHWEST DISTRICT
103 GOVERNMENTAL CENTER
PENSACOLA, FLORIDA 32501-5794



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY
ROBERT V. KRIEGLER
DISTRICT MANAGER

June 21, 1988

RECEIVED

JUN 22 1988

Mr. Bruce P. McLeod
Senior Specialist
Environmental Control
Monsanto Company
Post Office Box 12830
Pensacola, Florida 32575

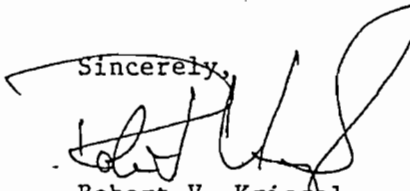
ENVIRONMENTAL
CONTROL

Dear Mr. McLeod:

In response to your June 14 letter, we agree with your conclusions that operating the "E" Nitric Acid plant at maximum production rates up to 1,100 tons per day with the offsetting enhanced absorber performance achieved by additional chilled water cooling, will not require a constuciton permit.

A change has been made to the operating permit A017-74429 to allow the proposed increased maximum operating rate. A copy of this operating permit modification is enclosed.

Sincerely,


Robert V. Kriegel
District Manager

RVK/jpl

Enclosure

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHWEST DISTRICT
100 GOVERNMENTAL CENTER
PENSACOLA, FLORIDA 32501-5794



June 21, 1988

BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY
ROBERT V. KRIEDEL
DISTRICT MANAGER

RECEIVED

JUN 22 1988

ENVIRONMENTAL
CONTROL

Mr. William J. Board
S.E. Director,
Governmental Affairs
Monsanto Company
Post Office Box 12830
Pensacola, Florida 32575

Dear Mr. Board:

This letter is in response to a June 14 letter from Bruce P. McLeod. By this letter, permit A017-74429 is modified as follows:

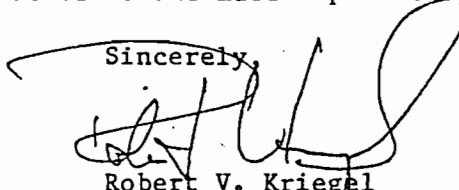
The maximum allowed operating rate of condition 16 is increased to 1100 tons of 100% nitric acid produced per day.

The nitrogen oxide limit of condition 18 shall remain at 3 pounds per ton of 100% nitric acid at operating rate of 1000 tons per day or less. This limit shall be reduced to 2.73 pounds per ton of 100% nitric acid for operating rate greater than 1000 tons per day up to the maximum allowed.

A third sentence shall be added to condition 23 which reads: Further, the emission standard of 2.73 pounds per ton is equivalent to 224 ppm.

This letter shall be attached to and made a part of permit A017-74429.

Sincerely,


Robert V. Kriegel
District Manager

RVK/jpl

cc: Bruce P. McLeod

Monsanto

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

June 14, 1988

Mr. T. W. Moody, P.E.
Special Programs Supervisor
Department of Environmental Regulation
160 Governmental Center
Pensacola, Florida 32501-5794

Dear Mr. Moody:

Monsanto would like to obtain Department authorization to operate the "E" Nitric Acid Plant, permit AO17-74429, at maximum production rates up to 1,100 tons per day. This represents a 100 ton per day (10%) increase in the permitted maximum daily production rate.

It is our opinion that this change should not require construction permitting because a contemporaneous emissions decrease will be achieved. By the addition of additional chilled water cooling to the Nitric Acid Plant absorber column, a 10+% decrease in average NOx emissions has been obtained. The attached Table A and Calculation A show the effect of the additional chilled water. A 10+% reduction in NOx emissions resulted by applying additional chilled water holding all other primary Nitric Acid Plant process variables constant. This chilled water usage is a permanent change to the Nitric Acid Plant and represents a step change reduction in the NOx emissions characteristics from the facility.

Increased production rates will be achieved with the same Nitric Acid Plant Facilities. Compliance with the 3 lbs/ton NSPS limit will be maintained.

Since the increased emissions associated with the 10% increase in production rate is offset by the 10% decrease in emissions as a result of enhanced absorber performance, no increase in actual emissions is expected. For this reason, it appears that construction permitting is not necessary in order for the Department to allow the production rate increase.


Mr. T. W. Moody, Pe.

2

June 3, 1988

A Department written response, hopefully concurring with Monsanto's position and increasing the "E" Nitric Acid Plant maximum operating rate to 1,100 tons per day, is requested.

Sincerely,



Bruce P. McLeod
Senior Specialist
Environmental Control

Attachments

c: J. G. Wiley, Monsanto, Pensacola

TABLE A

MONSANTO PENSACOLA
"E" NITRIC ACID PLANT

EFFECT OF CHILLED WATER ADDITION TO ABSORBER COLUMN

DATE	PROD	CONC	O ₂	NO _x	ABS PR	FLOW	LB NO _x	TONS	LB NO _x /TO
17-Jun-87	2888	0.6327	3.76	147	231	340422	1201	914	1.3146
18-Jun-87	2944	0.6335	3.76	154	230	341160	1261	933	1.3522
19-Jun-87	2936	0.6309	3.75	156	227	339263	1270	926	1.3715
20-Jun-87	2895	0.6334	3.74	174	227	342885	1432	917	1.5618
23-Jun-87	2629	0.6106	4.18	181	212	338042	1468	803	1.8295
24-Jun-87	2773	0.6224	4.17	178	228	346003	1478	863	1.7129
25-Jun-87	2900	0.6198	4.12	184	231	349640	1544	899	1.7180
28-Jun-87	2763	0.6169	4.58	195	233	356836	1670	852	1.9595
29-Jun-87	2667	0.6031	4.97	179	235	359462	1544	804	1.9201
AVERAGE		0.6226	4.11	172	228	345968	1430	879	1.6378
01-Sep-87	2978	0.6475	3.97	136	237	351211	1146	964	1.1890
02-Sep-87	3025	0.6436	3.65	147	235	351037	1238	973	1.2722
03-Sep-87	3112	0.6499	3.54	154	234	352644	1303	1011	1.2889
04-Sep-87	3055	0.6517	3.59	146	233	355259	1245	995	1.2505
05-Sep-87	3062	0.6407	3.59	182	234	354415	1548	981	1.5782
06-Sep-87	3103	0.6339	3.61	183	236	352178	1547	983	1.5727
07-Sep-87	2953	0.6339	3.59	177	234	351732	1494	936	1.5964
08-Sep-87	3051	0.6309	3.56	159	231	352713	1346	962	1.3985
09-Sep-87	2941	0.6291	3.61	175	232	355536	1493	925	1.6142
10-Sep-87	2943	0.6336	3.73	163	232	354755	1388	932	1.4385
11-Sep-87	2950	0.6304	3.69	165	232	353885	1401	930	1.5071
AVERAGE		0.6387	3.65	162	234	353215	1377	963	1.4324

KEY DESCRIPTION:

PROD Production in LBS of wet acid
 CONC Nitric acid concentration of product
 O₂ O₂ in stack gas
 NO_x NO_x conc. in stack gas
 ABS PR Absorber pressure
 FLOW Stack flow rate
 LB NO_x Lb/hr NO_x in stack gas
 TONS Tons of 100% acid produced per day
 LB NO_x/TO Lbs NO_x per ton of 100% acid

ATTACHMENT 2

Monsanto

MONSANTO CHEMICAL COMPANY

P. O. Box 12830

Pensacola, Florida 32575-2830

Phone: (904) 968-7000

VIA OVERNIGHT MAIL

October 6, 1988

RECEIVED
OCT 10 1988
DER-BAQM

Mr. Bill Thomas
Central Air Permitting
Bureau of Air Quality Management
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Thomas:

Enclosed for your review are the original construction permit applications and the two construction permits issued to the "E" Nitric Acid Plant. As discussed in our telephone conversation on October 5, 1988, based on your discussion with DER's legal staff, it is possible that the 10% operating rate increase requested by Monsanto can be accommodated by a letter modification to the construction permit. Your review of the enclosed documents will provide the information to make this determination.

Monsanto would like to obtain permission to operate at the 100 tons per day nitric acid production rate increase as soon as possible. Your consideration of this matter is greatly appreciated.

Sincerely,



Bruce P. McLeod
Senior Specialist
Environmental Control

c: J. G. Wiley, Monsanto, Pensacola

1372.BPM

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION
CONSTRUCTION PERMIT

FOR Monsanto Textiles Company
P. O. Box 12830
Pensacola, FL 32575

PERMIT NO. AC17-2179 DATE OF ISSUE August 1, 1977

PURSUANT TO THE PROVISIONS OF SECTIONS 403.061 (16) AND 403.707 OF CHAPTER 403 FLORIDA STATUTES AND CHAPTERS 17-4 AND 17-7 FLORIDA ADMINISTRATIVE CODE, THIS PERMIT IS ISSUED TO:
Mr. J. J. Vick, Environmental Control Supt.

FOR THE CONSTRUCTION OF THE FOLLOWING: Nitric Acid Plant E
Extension of construction schedule on the new nitric acid plant
originally permitted by AC17-2026. New schedule in accord with
signed Consent Order.

LOCATED AT SR 297 and SR 292 junction

IN ACCORDANCE WITH THE APPLICATION DATED June 17, 1977

ANY CONDITIONS OR PROVISOS WHICH ARE ATTACHED HERETO ARE INCORPORATED INTO AND MADE A PART OF THIS PERMIT AS THOUGH FULLY SET FORTH HEREIN, FAILURE TO COMPLY WITH SAID CONDITIONS OR PROVISOS SHALL CONSTITUTE A VIOLATION OF THIS PERMIT AND SHALL SUBJECT THE APPLICANT TO SUCH CIVIL AND CRIMINAL PENALTIES AS PROVIDED BY LAW.

THIS PERMIT SHALL BE EFFECTIVE FROM THE DATE OF ISSUE UNTIL March 1, 1978

OR UNLESS REVOKED OR SURRENDERED AND SHALL BE SUBJECT TO ALL LAWS OF THE STATE AND THE RULES AND REGULATIONS OF THE DEPARTMENT.

for St. Sobale P.E.
DISTRICT ENGINEER
P. J. Doherty, P.E.

Joseph W. Landers, Jr.
JOSEPH W. LANDERS, JR.
SECRETARY
DISTRICT MANAGER
Robert V. Kriegel

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

CONSTRUCTION PERMIT PROVISOS

AIR POLLUTION SOURCES

Permit No. AC17-2179

Date: August 1, 1977

- (x) 1. Construction of this installation shall be completed by N/A. Application for Permit to Operate to be submitted by December 1, 1977.
- (x) 2. This construction permit expires on March 1, 1978 following an initial period of operation for appropriate testing to determine compliance with the Rules of the Department of Environmental Regulation.
- (x) 3. All applicable rules of the Department including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction.
- (x) 4. The applicant shall continue the retention of the engineer of record for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to construction permit applications and associated documents. A report of such inspection shall be submitted by the engineer to the Department of Environmental Regulation for consideration toward the issuance of an operation permit.
- (x) 5. This nitric acid plant shall be tested* for nitrogen oxides within 60 days after it is placed in operation. These test results are required prior to our issuance of an operation permit and shall be submitted in duplicate to the DER Northwest Florida District Office 1391 Shoreline Drive, Post Office Box 838, Gulf Breeze, Florida 32561.

* Request Department be notified for observer to be present.

- (x) 6. The operation of this installation shall be observed for visible emissions in accordance with Method 9 - Visible Determination of the Opacity of Emissions from Stationary Sources (36FR24895; Federal Register, December 23, 1971). The observation results are required prior to our issuance of an operation permit, and shall be submitted in duplicate to the DER Northwest Florida District Office, 1391 Shoreline Drive, P. O. Box 838, Gulf Breeze, Florida 32561.
- (x) 7. Satisfactory ladders, platforms and other safety devices shall be provided/available as well as necessary ports to facilitate the carrying out of an adequate sampling program.

(over)

- (x) 8. Provisions of Consent Order, Docket No. A0-75-104(a) which are applicable to the new nitric acid plant shall be a requirement of this Construction Permit. Major provisions are noted in paragraphs below.
- (x) 9. Effective immediately, combined production of nitric acid from both new and existing units shall not exceed 850 tons/day or average over 800 tons/day on a monthly basis.
- (x) 10. Effective immediately, the interim limit of NO_x emissions from the new nitric acid plant shall not exceed 500 ppm on an instantaneous basis. *6.16 ton*
- (x) 11. Submit reports as noted in Consent Order. This includes performance test results which demonstrate compliance to Florida's Implementation Plan limiting standard of 3.0# NO_x /ton of 100 percent acid.

Expires March 15, 1975

STATE OF FLORIDA
DEPARTMENT OF POLLUTION CONTROL

CONSTRUCTION PERMIT

FOR Monsanto Company
St. Rd. 297 and St. Rd. 292
Gonzalez, Florida

PERMIT NO. AC17-2026

DATE March 22, 1974

PURSUANT TO THE PROVISION OF SECTION 403.061 (16) OF CHAPTER 403, FLORIDA STATUTES, AND CHAPTER 17-4, FLORIDA ADMINISTRATIVE CODE, THIS PERMIT IS ISSUED TO:
Mr. J. J. Vick, Environmental Control Superintendent

FOR THE CONSTRUCTION OF
Nitric Acid plant

LOCATED AT: Gonzalez, Escambia County, Florida Intersection
of State Road 297 & 292 Lat. 30° 35' 25" Long. 87° 14' 35"

IN ACCORDANCE WITH THE APPLICATION DATED November 8, 1973
AND IN CONFORMITY WITH THE STATEMENTS AND SUPPORTING DATA ENTERED THEREIN,
ALL OF WHICH ARE FILED WITH THE DEPARTMENT AND ARE CONSIDERED A PART OF THIS
PERMIT.

THIS PERMIT SHALL BE EFFECTIVE FROM THE DATE OF ITS ISSUANCE UNTIL 3/15/75
AND SHALL BE SUBJECT TO ALL APPLICABLE LAWS OF THE STATE AND THE RULES AND
REGULATIONS OF THE DEPARTMENT

CHIEF, BUREAU OF PERMITTING

P. J. Doherty
Regional Engineer

EXECUTIVE DIRECTOR

FORM 1-J

STATE OF FLORIDA

DEPARTMENT OF POLLUTION CONTROL

CONSTRUCTION PERMIT PROVISOS

AIR POLLUTION SOURCES

Permit No. AC17-2026

Date: 3/22/74

- [X] 1. Construction of this installation shall be completed by February 1, 1975
- [X] 2. This construction permit expires on March 15, 1975 following an initial period of operation for appropriate testing to determine compliance with the Rules of the Florida Pollution Control Board.
- [X] 3. All applicable rules of the Department including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction.
- [X] 4. The applicant shall continue the retention of the engineer of record for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to construction permit applications and associated documents. A report of such inspection shall be submitted by the engineer to the Department of Pollution Control for consideration toward the issuance of an operation permit.
- [x] 5. This acid plant shall be tested for Nitrogen Oxides within 45 days after it is placed in operation. These test results are required prior to our issuance of an operation permit and shall be submitted in duplicate to the DPC Northwest Florida Regional Office P.O. Box 838, Gulf Breeze, Florida 32561. (Due March 15, 1975)
- [x] 6. The operation of this installation shall be observed for visible emissions in accordance with Method 9 - Visible Determination of the Opacity of Emissions from Stationary Sources (Federal Register, December 23, 1971). The observation results are required prior to our issuance of an operation permit, and shall be submitted in duplicate to the DPC Northwest Florida Regional Office, P.O. Box 838, Gulf Breeze, Florida 32561.
- [] 7. Stack sampling for total particulate or other contaminant emissions shall be conducted if found by the DPC Florida Regional Office to be necessary as a basis for the issuance of an operation permit.
- [x] 8. Satisfactory ladders, platforms, and other safety devices shall be provided/available as well as necessary ports to facilitate the carrying out of an adequate sampling program.

(TURN OVER)

[] 9. The following items are required prior to our issuance of an operation permit in addition to the engineer of record's report of inspection:

- (a) An emission report for total particulates and sulfur oxides based upon actual operations.
- (b) A tabular summary of actual records of frequencies and durations of soot blowing as well as boiler blowdown characteristics and disposal practices.

These items are required prior to our issuance of an operation permit and shall be submitted in duplicate to the DPC _____
Florida Regional Office, _____

[] 10. There shall be no discharges of liquid effluents or contaminated runoff from the plant site.

[] 11. All fugitive dust generated at this site shall be adequately controlled.

ATTACHMENT 3

Monsanto

MONSANTO CHEMICAL COMPANY

P. O. Box 12830

Pensacola, Florida 32575-2830

Phone: (904) 968-7000

VIA OVERNIGHT MAIL

November 7, 1988

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

Dear Mr. Thomas:

Enclosed for your information are the 1984 and 1985 Annual Compliance Test Reports for Monsanto's Nitric Acid Plant, Permit A017-152415. The results of these emissions tests are representative of normal operation of this source.

These emission test results represent the "as built" performance of this unit. Subsequent compliance tests are not indicative of normal operation of the source. This is because of voluntary efforts by Monsanto to improve compliance assurance for this unit by improving emissions control performance.

Sincerely,



Bruce P. McLeod
Senior Specialist
Environmental Control

Enclosures

c: J. G. Wiley (Monsanto-Pensacola)

1392.BPM

RECEIVED

NOV 8 1988

DER-BAQM

SOURCE TEST REPORT

MONSANTO TEXTILES COMPANY
NITRIC ACID PLANT
PENSACOLA, FLORIDA

NO_x EMISSION COMPLIANCE TEST
AND
VISIBLE EMISSION TEST
May 8, 1984

Prepared for:

MONSANTO TEXTILES COMPANY
Pensacola, Florida

Prepared by:

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.
P.O. Box ESE
Gainesville, Florida 32602

ESE No. 84-135-0100

June, 1984

1.0 INTRODUCTION

On May 8, 1984, Environmental Science and Engineering, Inc. (ESE) conducted oxides of nitrogen (NO_x) emission tests on the absorber stack at the Monsanto Textiles Company (Monsanto) nitric acid facility in Pensacola, Florida. NO_x sampling was performed using the United States Environmental Protection Agency (EPA) Method 7 sampling train.

Ms. Laura Brown of Monsanto coordinated testing and Donald Curtis, a certified visible emissions observer at Monsanto, conducted the visible emissions test (VET).

2.0 SUMMARY AND DISCUSSION OF RESULTS

Results of the NO_x emission tests are presented in Table I. Complete emission data are included in Appendix A.

During the testing period, the plant was producing 38.35 tons of 100 percent nitric acid per hour (see Appendix F). NO_x emissions averaged 3.0 pounds per ton (lb/ton) of 100 percent acid, based on averaging 23* grab samples. This meets the allowable NO_x emission rate of 3.0 lb/ton of 100 percent acid produced. Visible emissions, as observed by Mr. Curtis of Monsanto, were equal to 5 percent opacity, which is within the 10 percent opacity compliance limit (Florida Department of Environmental Regulation, Chapter 17-2.05, Table II).

The average moisture percentage and volumetric flow rate were determined by three moisture runs and velocity traverses taken during the test period. The velocities and moistures were used to determine mass emission rates. Monsanto believes the stack velocity and resultant flow rates ^{are} higher than actual, based on previous stack test reports and specific operating conditons during this test (see Appendix G for details). Thus, the emissions reported here represent conservative maximums. This report should be considered valid for demonstrating compliance with NO_x emission standards since any error in the stack velocity will bias the results against the source.

*Twenty four samples were taken by ESE's sampling team. Twelve were analyzed by Monsanto's laboratory and twelve were analyzed by ESE's laboratory. The first of ESE's samples had an extremely low concentration of NO_x, and was reanalyzed with no change in results. The reason for this low concentration is not known. This result is presented in Table I, but was omitted from the average. With the omission of this sample, the two laboratory analyses were in agreement within 5.2 percent. These results are presented in Appendix D.

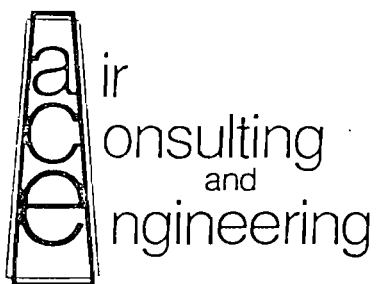
MON/HTB.1
6/12/84

Table 1: NO_x Emission Summary
Monsanto Nitric Acid Plant
Pensacola, Florida, May 8, 1984

Sample No.	Time	H ₂ O (%)	Flow Rate (SCFMD)	O ₂ (%)	Stack Temp (°F)	EMISSIONS		
						Actual		Allowable
						PPM (Dry)	lb/ton (100% Acid)	lb/ton (100% Acid)
MON-1	0950	1.26	84,039	3.3	386.7	168	2.6	3.0
ESE-1	0950					75*	1.2*	3.0
MON-2	1005					162	2.5	3.0
ESE-2	1005					194	3.0	3.0
MON-3	1020					149	2.3	3.0
ESE-3	1020					195	3.1	3.0
MON-4	1035					187	2.9	3.0
ESE-4	1035					189	3.0	3.0
MON-5	1050	1.23	83,997	3.3	387.1	198	3.1	3.0
ESE-5	1050					194	3.0	3.0
MON-6	1105					198	3.1	3.0
ESE-6	1105					207	3.2	3.0
MON-7	1120					192	3.0	3.0
ESE-7	1120					209	3.3	3.0
MON-8	1135					194	3.0	3.0
ESE-8	1135					206	3.2	3.0
MON-9	1150	0.77	84,279	3.3	389.2	205	3.2	3.0
ESE-9	1150					201	3.2	3.0
MON-10	1205					206	3.2	3.0
ESE-10	1205					195	3.1	3.0
MON-11	1220					196	3.1	3.0
ESE-11	1220					203	3.2	3.0
MON-12	1235					197	3.1	3.0
ESE-12	1235					164	2.6	3.0
AVERAGE		1.09	84,105	3.3	388.7	192	3.0	3.0

*Omitted from average.

Source: ESE, 1984



SOURCE TEST REPORT
for
NOX AND VISIBLE EMISSIONS

NITRIC ACID ABSORBER STACK

MONSANTO TEXTILES COMPANY
PENSACOLA, FLORIDA

MAY 29, 1985

PREPARED BY

AIR CONSULTING AND ENGINEERING
3016-B N.E. 20TH WAY
GAINESVILLE, FLORIDA 32609
(904) 373-3936

148 85 01

1.0 INTRODUCTION

On May 29, 1985, Air Consulting and Engineering (ACE) conducted compliance testing for Oxides of Nitrogen (NO_x) emissions on Monsanto Textiles Company's nitric acid absorber stack in Pensacola, Florida.

Twelve samples were taken using the Environmental Protection Agency Method 7 sampling train and test procedures.

Mr. Bruce McLeod of Monsanto coordinated testing and Mr. Donald Curtis, also of Monsanto, performed a Visible Emissions Test (VET).

2.0 SUMMARY AND DISCUSSION OF RESULTS

NOx emissions averaged 2.75 pounds per ton (lb/ton) of 100% acid produced. This is within the limiting standard of 3.0 lb/ton.

Table 1 summarizes NOx emissions. Complete emission data and stack gas parameters are located on the field data sheets in Appendix A.

Visible emissions averaged 4.71 percent opacity for the one hour test period. The field data sheets and observer's certification are located in Appendix F.

The nitric acid plant produced 37.9 tons per hour (TPH) of 100% nitric acid during the test period. Production rates, concentrations, and continuous NOx monitor data are presented in Appendix E.

Table 1 NOx Emission Summary
 Nitric Acid Plant
 Monsanto Textiles
 Pensacola, Florida
 May 29, 1985

Sample No.	Time	Flow Rate (SCFMD)	Emissions	
			PPM V (Dry)	lb/Ton 100% Acid
1	0830		129	1.89
2	0848		193	2.83
3	0901		160	2.35
4	0916		198	2.90
#		77,721		
5	0933		191	2.80
6	0949		213	3.12
7	1005		197	2.90
8	1021		197	2.89
#		77,684		
9	1039		193	2.85
10	1055		187	2.76
11	1111		192	2.84
12	1126		193	2.85
#		78,076		
AVG		77,827	187	2.75

ATTACHMENT 4

DEX REQUEST

Requestor BRUCE McLEOD
904. 968- 8725 Extension 8725 Bldg. 601 Room

Date 11/10/88

DEX TO:

Name PRADEEP RAVAL - BAQM 8-1344

Location DER-TALL Dex Telephone No. 904 487-3618

Equipment Dex METS No. Location 488 Ext. 6579

Special Instructions: NOTE ARTICLE VII, ITEM 3.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

IN THE MATTER OF)	
)	
MONSANTO TEXTILES COMPANY)	
PENSACOLA, FLORIDA)	DOCKET NO. AO-76-104(a)
)	
PROCEEDINGS UNDER §113(a),)	
CLEAN AIR ACT, AS AMENDED)	

CONSENT ORDER

The following ORDER is issued this date pursuant to Section 113(a)(1) of the Clean Air Act, as amended, 42 U.S.C. §1857c-8(a)(1) (hereinafter referred to as the "Act").

On April 27, 1976, Jack E. Ravan, Regional Administrator, Region IV, United States Environmental Protection Agency (hereinafter referred to as "EPA"), pursuant to authority delegated to him by the Administrator, issued a Notice to the Monsanto Textiles Company (hereinafter referred to as the "Company"), Pensacola, Florida, that the Company was found in violation of emission limitations and compliance schedules which are part of the Federally-approved Florida Implementation Plan. Specifically, the Nitric Acid Plants A, B, C and D were found to be in violation of (1) section 17-204(6)(g)2 of the Florida Air Pollution Rules and Regulations dealing with NO_x emissions from nitric acid plants, and (2) the Federally-approved State compliance schedule which was published in the September 19, 1973, Federal Register at page 26343.

Pursuant to Section 113(a)(4) of the Act, opportunity to formally confer with representatives of EPA was extended to the Company and informal conferences were held on November 4 and December 3, 1976.

The new nitric acid plant, subject to New Source Performance Standards (NSPS), commenced operations on August 27, 1976. As a requirement of NSPS, 40 CFR §60.8(a), source tests demonstrating compliance are to be performed within 180 days after the date of the startup. Due to unforeseen problems encountered with the startup of the new nitric acid plant a "force majeure" situation has occurred, preventing the Company from performing source tests by the 180th day. Therefore, this Order contains a compliance schedule for the new nitric acid plant with a final compliance date of December 1, 1977.

The purposes of this Order are: (1) to require the four nitric acid plants to achieve full compliance by March 31, 1978, with the applicable NO_x emission limiting regulations; and (2) to require the new nitric acid plant to achieve compliance with Federal New Source Performance Standards by December 1, 1977.

After investigation, analysis and review of all relevant facts, including the seriousness of the violations and any good faith efforts to comply, it has been determined that compliance in accordance with the following provisions is reasonable and as expeditious as practicable.

ORDERED

I

That the attached Appendices governing abatement programs are incorporated into and made a part of this Order for the control of NO_x emissions from the Monsanto Textiles Company facility in Pensacola, Florida.

The appendices are designated as follows:

That all submissions of source performance test results, reports, certifications, and other items required by this Order be made to the Director, Enforcement Division (hereinafter referred to as the "Director"), United States Environmental Protection Agency, 345 Courtland Street, N.E., Atlanta, Georgia 30308, with copies to the Secretary, Florida Department of Environmental Regulation (hereinafter referred to as the "Secretary"), 2562 Executive Center Circle East, Montgomery Building, Tallahassee, Florida 32301.

III

That the Company submit, no later than five (5) days after the deadline for completing each milestone required by Part I, certification to the Director, whether such milestone has been met.

IV

That the Company provide the Director, with twenty (20) days notice prior to the conducting of any performance tests as required by Part I in order to afford the Director an opportunity to approve the test procedure and to have an observer present at such testing.

V

That the Company perform operation and maintenance practices on all sources as necessary to prevent breakdowns or malfunctions and to reduce emissions in excess of regulations to the maximum extent practicable. When emissions due to sudden and unforeseen malfunction of an affected facility are or may be in excess of the maximum allowable as set forth in this Order, for greater than four (4) hours, the owner or operator shall notify this office and the appropriate state or local air pollution control agency by telephone or telegram as promptly as possible, and in no event later than twelve (12) hours following the start of the malfunction, and shall cause written notification to be

to the Director and the appropriate state or local air pollution control agency no later than the end of the next working day following the start of such malfunction. Such notice shall specify the name of the affected facility, its location, the address and telephone number of the person responsible for the affected facility, the nature and cause of the malfunction, the date and time when such malfunction was first observed, the expected duration, and an estimate of the physical and chemical composition, rate and concentration of the emission. The Company shall remedy the malfunction or breakdown as soon as possible thereafter and shall take reasonable steps to reduce emissions in excess of the regulations during the malfunction or breakdown.

The Regional Administrator shall have the authority during a breakdown or malfunction to require the Company to take specific steps to reduce emissions; including process equipment modifications and/or reductions, or termination if necessary. Within ten (10) days after the termination of a breakdown or malfunction requiring the above notification, the owner or operator shall submit:

- (1) The time the excess emission began and ended;
- (2) The time of the beginning and end of the breakdown or malfunction which is asserted to be the cause of the excess emission;
- (3) An estimate of the physical and chemical composition, rate, and concentration of emissions which occurred and where continuous monitoring is required or is in effect (including visible emission detector), the strip charts with plots of all emissions monitored versus time, including a summary of the monitoring instruments' written record expressed in units of the applicable standard;
- (4) An explanation and, where appropriate, an engineering analysis of the cause of the malfunction or breakdown;
- (5) A description of those operating and/or maintenance procedures and practices in use prior to and during the occurrence, which were designed to prevent or minimize the extent and duration of the malfunction or breakdown;

- (6) Any other steps taken to minimize the extent or duration of the malfunction or breakdown;
- (7) An analysis of what steps will be taken to prevent or minimize similar occurrences in the future; and
- (8) Such additional information as the Regional Administrator may require.

The Regional Administrator may for good cause, waive or extend the time periods for filing the notices or reports required by this section. This section is subject to any subsequent revision upon notification of the same by EPA.

VI

That the Company shall notify as promptly as possible, the Director, and the Secretary, of any violation of the interim limits set forth in Part VII of this Order when such violations are caused by situations other than those described in Part V of the Order.

VII

1. Effective immediately, the interim limit of NO_x emissions from the new nitric acid plant shall not exceed 500 ppm on an instantaneous basis. Compliance with this interim emission limit shall be demonstrated by the existing continuous NO_x monitor. The Company shall submit, no later than thirty (30) days after the end of each quarter, commencing with the July 1, 1977, to September 30, 1977, quarter, a written report of excess emissions and the nature and cause of the excess emissions. These quarterly reports shall include as a minimum the information identified in 40 CFR 860.73 (October 6, 1975, Federal Register at page 46258) for each three hour period during which the emissions exceed 500 ppm.

The Company shall take the necessary steps to calibrate, maintain and operate a continuous monitoring system for the measurement of nitrogen oxides as required by 40 CFR 860.73.

2. Effective immediately, the interim limit of NO_x emissions from the existing nitric acid plants A, B, C and D shall not exceed 3500 ppm on a weekly average basis from each existing unit. Compliance with this interim emission limit shall be demonstrated by the wet chemistry analytical method which is currently used by the Company. The Company shall submit, no later than thirty (30) days after the end of each month, commencing July 1, 1977, a written report of the weekly averages.

3. Effective immediately, the Company shall not produce more than 800 tons of nitric acid per day total from the new and existing nitric acid plants on a monthly average basis, not to exceed 850 tons on any given day, until final compliance with the applicable NO_x emission limiting regulation as contained in the Florida Implementation Plan is demonstrated at the existing units or until final compliance with Federal New Source Performance Standards is demonstrated at the new unit, whichever is earlier.

VIII

1. The Department of Environmental Regulation agrees to waive its right to seek the imposition of civil or criminal fines or penalties against the Company for violations of its standards regarding nitrogen oxides emissions as they apply to the facilities covered by this ORDER, so long as the terms and conditions of this ORDER are in effect and complied with by the Company; however, nothing in this agreement shall prevent the Department from requesting a Court of appropriate jurisdiction to utilize its injunctive powers to prevent any damage to the health or welfare of the people, plant, animal or aquatic life of the State of Florida.

2. It is agreed upon that the following amounts shall be awarded to the Department of Environmental Regulation and against the Company as liquidated damages each day the Company operates its Nitric Acid Plants A, B, C and D after March 31, 1978, or its new Nitric Acid Plant E after

ATTACHMENT 5

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Monsanto

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

VIA OVERNIGHT MAIL

November 11, 1988

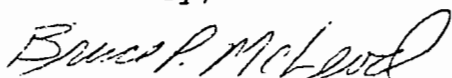
Mr. Bill Thomas
Bureau of Air Quality Management
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Thomas:

Enclosed for your information is the 1983 Annual Compliance Test Report for Monsanto's Nitric Acid Plant, Permit A017-152415.

Based upon further review, I believe the period 1983-1984 is more representative of "as built" performance of this unit. The 1984 Compliance Test Report was sent to your previously,

Sincerely,



Bruce P. McLeod
Senior Specialist
Environmental Control

Enclosures

c: J. G. Wiley (Monsanto-Pensacola)

1397.BPM

SOURCE TEST REPORT

MONSANTO TEXTILES COMPANY
NITRIC ACID PLANT
PENSACOLA, FLORIDA

1983

NOx EMISSION TESTING

Prepared for:

MONSANTO TEXTILES COMPANY
Pensacola, Florida

Prepared by:

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.

Gainesville, Florida

November 1983

ESE No. 83 168 100

1.0 INTRODUCTION

On November 7, 1983, ESE conducted oxides of nitrogen (NOx) emission tests on the absorber stack at the Monsanto Textiles company (Monsanto) nitric acid facility in Pensacola, Florida. NOx sampling was performed using the United States Environmental Protection Agency (EPA) Method 7 sampling train.

Ms. Laura Brown of Monsanto coordinated testing; Peter Burnette of ESE was Project Manager; and Donald Curtis, a certified visible emissions observer at Monsanto, conducted the visible emissions test (VET).

This testing constituted a retest for work originally conducted on October 13, 1983. The October test results were slightly higher than compliance limits of 3.0 pounds NOx per ton of 100% acid, but the 12 samples taken revealed unacceptable variances and were not in agreement with the Du Pont continuous monitor for the plant.

2.0 SUMMARY AND DISCUSSION OF RESULTS

Results of the NOx emission tests are presented in Table 1. Complete emission data are included in Appendix A.

During the testing period, the plant was operating at a rate of 920 tons per day, or at 92 percent of capacity. Average NOx emissions (calculated as NO2) were equal to 2.984 pounds per ton of 100 percent acid, based on averaging the 12 grab samples. The allowable NOx emission rate is 3.0 pounds per ton of 100 percent acid produced. Visible emissions, as observed by Mr. Curtis of Monsanto, were equal to 5 percent opacity, which is within the 10 percent opacity compliance limit (Florida Department of Environmental Regulation, Chapter 17-2.05, Table II).

The volumetric flow rate was determined by averaging the results of three velocity traverses taken during the test period. A moisture run using EPA Method 4 also was conducted. The velocity and moisture averages were used to determine mass emission rates.

Two EPA NOx check samples were analyzed along with the twelve Monsanto samples. The deviations from the EPA values were +5.7% and -0.64% respectively.

Table 1. Emission Summary: Absorber Stack, Nitric Acid Plant
Monsanto Textiles Company
November 7, 1983

No.	Time	<u>NOx Emission Rate</u>		<u>Volumetric Flow Rate</u>	
		(ppm)	(lb/ton 100%* acid)	(ACFM)	(SCFMD)
1-1	1030	194	2.845		
1-2	1045	192	2.821		
1-3	1100	207	3.031		
1-4	1115	180	2.646		
Average		193	2.836	125577	78379
2-1	1130	213	3.117		
2-2	1145	226	3.306		
2-3	1200	190	2.794		
2-4	1215	215	3.1555		
Average		211	3.093	125397	78267
3-1	1230	211	3.098		
3-2	1245	184	2.704		
3-3	1300	213	3.126		
3-4	1315	186	2.728	126286	78822
Average		199	2.914		
AVERAGE		201	2.948	125753	78489

*Calculated as NO₂; based on flow measurements taken during testing period.