



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

December 23, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Steven J. Susick
General Manager
US Agri-Chemicals, Inc.
3225 State Road 630 West
Fort Meade, Florida 33841-9799

Re: DRAFT Amended Air Construction Permit No. AC53-260190 (PSD-FL-222)
and Final BACT Determination for Ft. Meade Prilled MAP Plant


Dear Mr. Susick:

Enclosed is one copy of the DRAFT Amended Air Construction Permit and Revised BACT Determination for the Prilled MAP Plant to be constructed at 3225 State Road 630 West, Ft. Meade, Polk County. The Department's Intent to Issue Amended Air Construction Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE AMENDED AIR CONSTRUCTION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AMENDED AIR CONSTRUCTION PERMIT" must be published within 30 (thirty) days of receipt of this letter. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. A. A. Linero, P.E. at the above letterhead address. If you have any questions, please contact John Reynolds at 904/488-1344.

Sincerely,


for C. H. Fancy, P.E., Chief,
Bureau of Air Regulation

CHF/hh

Enclosures

P 265 659 119

US Postal Service
Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to Mr. Steven J. Susick	
Street & Number 3225 SR 630 West	
Post Office, State, & ZIP Code Fort Meade, FL 33841-9799	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date Mailed: 12-26-96 Permit: AC53-260190 PSD-FL-222	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

AC53-260190 PSD-FL-222

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. Steven J. Susick
General Manager
US Agrichemicals, Inc.
3225 State Road 630 West
Fort Meade, FL 33841-9799

4a. Article Number
P 265 659 119

4b. Service Type
 Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

7. Date of Delivery
12-30-96

5. Received By: (Print Name)

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

6. Signature: (Addressee or Agent)

X *W. Washington*

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

In the Matter of an
Application for Permit by:

US Agri-Chemicals, Inc.
3225 State Road 630 West
Fort Meade, Florida 33841/

Permit No. AC53-260190 (PSD-FL-222)
Prilled MAP Plant
Polk County

INTENT TO ISSUE AMENDED AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an amended air construction permit (copy of DRAFT Amended Permit enclosed) as detailed in the permit file specified above, for the reasons stated below.

US Agri-Chemicals, Inc., applied on April 4, 1995, to the Department for an air construction permit to construct a Prilled Monoammonium Phosphate (MAP) plant located at 3225 State Road 630 West, near Ft. Meade in Polk County. The original construction permit was issued on September 29, 1995, requiring, prior to construction, Department approval of the control technology design for the BACT option selected. Emissions tests were required by the original permit following construction so that final emission limits could be established in a final BACT determination and amended construction permit. However, because the applicant's control technology design does not comply with the Department's BACT determination, the Department is issuing a Revised BACT Determination and this amended air construction permit with final emission limits.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-212. This source is not exempt from permitting procedures.

The Department intends to issue this amended air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "**PUBLIC NOTICE OF INTENT TO ISSUE AMENDED AIR CONSTRUCTION PERMIT.**" The notice shall be published one time only within 30 (thirty) days in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400

DRAFT Permit No.:AC53-260190 (PSD-FL-222)

Page 2 of 5

(Telephone: 904/488-1344; Fax: 904/922-6979), within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-103.150(6), F.A.C.

The Department will issue the FINAL Amended Permit, in accordance with the conditions of the enclosed DRAFT Amended Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed DRAFT Amended Permit issuance action for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE AMENDED AIR CONSTRUCTION PERMIT." Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Amended Permit, the Department shall issue a Revised DRAFT Amended Permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., or a party requests mediation as an alternative remedy under section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 904/488-9730, fax: 904/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number and the county

in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A person whose substantial interests are affected by the Department's proposed permitting decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by filing with the Department a request for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

A request for mediation must contain the following information: (a) The name, address, and telephone number of the person requesting mediation and that person's representative, if any; (b) A statement of the preliminary agency action; (c) A statement of the relief sought; and (d) Either an explanation of how the requester's substantial interests will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that the requester has already filed, and incorporating it by reference.

The agreement to mediate must include the following: (a) The names, addresses, and telephone numbers of any persons who may attend the mediation; (b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time; (c) The agreed allocation of the costs and fees associated with the mediation; (d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation; (e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen; (f) The name of each party's representative who shall have authority to settle or recommend settlement; and (g) The signatures of all parties or their authorized representatives.

As provided in section 120.573 F.S., the timely agreement of all parties to mediate will toll the time limitations imposed by sections 120.569 and 120.57 for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under sections 120.569 and 120.57 remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.


The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the

Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**


for C. H. Fancy, P.E., Chief,
Bureau of Air Regulation


CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AMENDED AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE, revised BACT Determination, and the DRAFT permit) and copies were mailed by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 12-26-96 to the persons listed:

Mr. Steven J. Susick, P.E., US Agri-Chemicals, Inc. *
Mr. Bill Thomas, SWD
Mr. Roy Harwood, Polk County
Mr. Brian Beals, EPA
Mr. John Bunyak, NPS

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(Clerk) 12-24-96 (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AMENDED AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DRAFT Permit No.: AC53-260190 (PSD-FL-222)
US Agri-Chemicals, Inc.
Polk County

The Department of Environmental Protection (Department) gives notice of its intent to issue an amended air construction permit to US Agri-Chemicals, Inc. for a prilled MAP plant located at 3225 State Road 630 West, Fort Meade, Polk County. A Best Achievable Control Technology (BACT) determination was required. The applicant's name and address are: US Agri-Chemicals, Inc., 3225 State Road 630 West, Fort Meade, Florida 33841.

This company applied on April 4, 1995, to construct a prilled MAP plant at its existing facility. The original construction permit was issued on September 29, 1995. Particulate and fluoride emissions from the prill tower and cooler are controlled by a scrubber while the product loadout area is controlled by a baghouse. This amendment was necessitated by a change in the basis for setting final emission limits. The final emission limit for gaseous fluoride is more stringent than that contemplated in the original permit, while there is no change in the particulate matter emissions originally contemplated.

The Department will issue the FINAL Permit, in accordance with the proposed amended conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed DRAFT Amended Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Amended Permit, the Department shall issue a Revised DRAFT Amended Permit and require, if applicable, another Public Notice.

The Department will issue the FINAL Permit with the proposed amended conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S. or a party requests mediation as an alternative remedy under section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 of the F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 904/488-9370, fax: 904/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the appropriate

time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with rule 28-5.207 of the Florida Administrative Code.

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

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A person whose substantial interests are affected by the Department's proposed permitting decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by filing with the Department a request for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

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The agreement to mediate must include the following: (a) The names, addresses, and telephone numbers of any persons who may attend the mediation; (b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time; (c) The agreed allocation of the costs and fees associated with the mediation; (d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation; (e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen; (f) The name of each party's representative who shall have authority to settle or recommend settlement; and (g) The signatures of all parties or their authorized representatives.

As provided in section 120.573 F.S., the timely agreement of all parties to mediate will toll the time limitations imposed by sections 120.569 and 120.57 for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of

Final Order

the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under sections 120.569 and 120.57 remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

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

Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 904/488-1344
Fax: 904/922-6979

Department of Environmental Protection
Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619
Telephone: 813/744-6100
Fax: 813/744-6084

The complete project file includes the Draft Amended Permit, the revised BACT Determination, the original permit, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 904/488-1344, for additional information.



Department of Environmental Protection

DRAFT

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

PERMITTEE:
US Agri-Chemicals Corp.
3225 State Road 630 West
Fort Meade, FL 33841-9799

Permit Number: AC 53-260190
PSD-FL-222
Expiration Date: Dec. 30, 1998
County: Polk
Latitude/Longitude: 27°44'25"N
81°51'05"W
Project: 60 TPH Prilled MAP
Plant

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, 212, 272, 275, 276, and 297, Florida Administrative Code (F.A.C.). The above named permittee is hereby authorized to perform the work or operate the emission unit shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department of Environmental Protection (Department) and specifically described as follows:

For the construction of a 60 TPH Prilled MAP Plant. The facility is located at 3225 State Road 630 West, Fort Meade, Polk County, Florida. The UTM coordinates are Zone 17: 416 km East and 3,069 km North.

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

Attachments are listed below:

1. DEP's letter dated November 23, 1994
2. USDOJ's letter dated December 15, 1994
2. DEP's letter dated February 17, 1995
3. K&A's letter dated March 2, 1995
4. K&A's letter dated March 20, 1995
5. K&A's letter dated March 29, 1995
6. K&A's letter dated March 31, 1995
7. USAC's letter dated July 13, 1995
8. USEPA's letter dated August 7, 1995
9. K&A's letter dated August 14, 1995
10. K&A's letter dated September 12, 1995
11. K&A's letter dated June 4, 1996
12. DEP's letter dated July 3, 1996
13. K&A's letter dated October 1, 1996

PERMITTEE:
US Agri-Chemicals Corp.

Permit Number: AC 53-260190
PSD-FL-222
Expiration Date: Dec. 30, 1998

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither 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 is not 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, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; 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.

6. The permittee shall 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

DRAFT

PERMITTEE:
US Agri-Chemicals Corp.

Permit Number: AC 53-260190
PSD-FL-222
Expiration Date: Dec. 30, 1998

GENERAL CONDITIONS:

credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor 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 provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

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 for 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

DRAFT

PERMITTEE:
US Agri-Chemicals Corp.

Permit Number: AC 53-260190
PSD-FL-222
Expiration Date: Dec. 30, 1998

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-30.300, F.A.C., 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 or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (X) Determination of Best Available Control Technology (BACT)
- (X) Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained 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 dates analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

DRAFT

PERMITTEE:
US Agri-Chemicals Corp.

Permit Number: AC 53-260190
PSD-FL-222
Expiration Date: Dec. 30, 1998

GENERAL CONDITIONS:

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 corrected promptly.

SPECIFIC CONDITIONS:

1. Unless otherwise indicated, the construction and operation of the subject Prilled MAP production facility shall be in accordance with the capacities and specifications stated in the application. [Rule 62-210.300, F.A.C.]

2. The production rate of the Prilled MAP plant shall not exceed 60 tons MAP product per hour. [Rule 62-212.200(223), F.A.C.]

3. The Prilled MAP plant may operate up to 8760 hours per year. [Rule 62-212.200(223), F.A.C.]

4. PM/PM10 emissions from the Prilled MAP plant loadout baghouse shall not exceed 5% opacity. [Rule 62-296.403, F.A.C.]

5. Emissions of fluorides and PM/PM10 from the scrubber shall not exceed the following limits: [Rule 62-296.403, F.A.C.]

PM/PM10:	24.00 lb/hr and 105.12 tons/yr
Total Fluorides:	0.58 lb/hr and 2.54 tons/yr
Visible Emissions:	15% opacity

6. The initial performance test for total fluorides shall be done simultaneously on both inlets and the outlet of the prill tower scrubber, with on-site monitoring by Department staff. Annual compliance tests for fluorides thereafter shall be done on the outlet only unless otherwise required by the Department. PM/PM10 tests shall be conducted on the prill tower scrubber outlet and the product loadout baghouse. For the duration of all tests the emission unit shall be operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the emission unit may be tested at less than capacity (i.e., less than 90 percent of maximum operating rate allowed by the permit); in this case, subsequent emission unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emission unit is so limited, then operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity in the permit. [Rule 62-297.340(1)(a), F.A.C.]

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PERMITTEE:
US Agri-Chemicals Corp.

Permit Number: AC 53-260190
PSD-FL-222
Expiration Date: Dec. 30, 1998

SPECIFIC CONDITIONS:

7. The Department's Southwest District office shall be notified in writing at least 15 days prior to the performance test. Compliance test results shall be submitted to that office within 45 days of test completion. [Rule 62-297.340(1)(i), F.A.C.]

8. The test procedures for fluorides shall be in accordance with EPA Reference Methods 1, 2, 3, and 13A or 13B, as published in 40 CFR 60, Appendix A. The test procedures for PM/PM10 shall be in accordance with EPA Reference Methods 1, 2, 3, 5 and 9 as published in 40 CFR 60, Appendix A. [Rules 62-296.800 and 62-297.401, F.A.C.]

9. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]

10. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

11. The Prilled MAP plant shall be subject to the following:

a. Excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

b. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

c. Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest. [Rule 62-210.700(5), F.A.C.]

d. In case of excess emissions resulting from malfunctions, each source shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]

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PERMITTEE:
US Agri-Chemicals Corp.

Permit Number: AC 53-260190
PSD-FL-222
Expiration Date: Dec. 30, 1998

SPECIFIC CONDITIONS:

12. The permittee shall submit an Annual Operating Report using DEP Form 62-210.900(4) to the Department's Southwest District office by March 1 of the following year for the previous year's operation. [Rule 62-210.370, F.A.C.]

13. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rule 62-4.090, F.A.C.]

14. An application for an operation permit must be submitted to the Southwest District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit. [Rules 62-4.055 and 62-4.220, F.A.C.]

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Howard L. Rhodes, Director
Division of Air Resources Management

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REVISED
Best Available Control Technology (BACT) Determination
U.S. Agri-Chemicals Corporation
Fort Meade, Polk County, Florida
PSD-FL-222
AC53-260190

The applicant proposes to construct a 60 tons per hour (TPH) prilled monoammonium phosphate (MAP) plant at their phosphate processing facility in Fort Meade. The proposed project will result in a significant increase in emissions of particulate matter (PM-PM₁₀). The project is, therefore, subject to Prevention of Significant Deterioration (PSD) review in accordance with Rule 62-212.400, Florida Administrative Code (F.A.C.). The BACT determination is part of the review required by Rules 62-212.400 and 62-296.403(1)(i), F.A.C.

Date of Receipt of Complete Application: April 4, 1995

BACT Determination Proposed by Applicant:

Emission Limits: Tower & Cooler - 0.0417 lb F/ton P₂O₅ input
 - 0.40 lb PM-PM₁₀/ton MAP
Product Loadout - 0.072 lb PM-PM₁₀/ton MAP

Control Technology: - Medium-energy venturi scrubber using
 recycled slurry (for tower and cooler)
 - Baghouse (for product loadout)

BACT Determination Procedure:

In accordance with F.A.C. Chapter 62-212, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, Rule 62-212.410(1), F.A.C., states that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering, and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other state.

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(d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

Original BACT Determined by DEP:

Emission Limits: Tower and Cooler - Fluoride and PM/PM10 limits to be established after performance test
Product Loadout - No visible emissions

Control Technology:

Options for Tower & Cooler:

- Medium-energy venturi primary scrubber with packed secondary scrubber using recirculated gypsum/cooling pond water (minimum 99.3% removal of total gaseous fluorides and 99.0% removal by weight of PM/PM10 over 5 microns)
- Medium-to-high-energy venturi scrubber using neutralized water from dedicated scrubber pond with fresh water makeup (minimum 99.3% removal of total gaseous fluorides and 99.0% removal by weight of PM/PM10 over 5 microns)
- Other system with equivalent removal efficiencies approved by the Department

Product Loadout: Baghouse as proposed

Original BACT Determination Rationale:

The applicant based their proposed fluoride BACT emission limit of 0.0417 lb F per ton P2O5 on the Department's 1994 BACT determination for IMC-Agrico's granular Diammonium Phosphate plant in Polk County (PSD-FL-204). However, due to the substantial differences in air flow and other process variables that exist between the granulation and prill tower processes, the Department cannot rely on the granulation emissions to accurately predict emissions from the prill process.

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PM/PM10 emission limits were proposed by the applicant based on a 1980 BACT determination for a prilled MAP plant operated by IMC-Agrico. Since that is the only BACT determination available (15 years old) and technological advances have no doubt been made since 1980, the Department prefers not to rely on it for this new source.

This leaves the Department without an adequate basis for arriving at BACT limits for this project prior to construction. In such cases where relevant data are not available on which to base an enforceable BACT emission limit, the Department must require that the level of control and the emission control equipment capabilities be at least equivalent to those imposed in other BACT determinations for the same industry.

Based on a review of state-of-the-art fluoride scrubber capabilities in the phosphate industry, the Department finds that for this application the control equipment should be capable of achieving at least 99.3% removal of gaseous fluorides and 99.0% (wt.) removal of PM/PM10 above 5 microns. The applicant must submit scrubber design calculations and drawings to the Department prior to construction to show that the equipment will meet these removal efficiencies. The BACT emission limits will be established upon completion of the performance tests.

Revised BACT Determined by DEP:

Emission Limits: Tower & Cooler - 0.019 lb F/ton P2O5 input
0.40 lb PM-PM10/ton MAP
15% opacity
Product Loadout - No visible emissions

Control Technology:

Options for Tower & Cooler if Fluoride Limits Not Met:

- Venturi primary scrubber using recirculated slurry followed by secondary scrubber using once-through cooling pond water.
- Venturi scrubber using recirculated neutralized water from dedicated scrubber pond.

Product Loadout: Baghouse as proposed

Revised BACT Determination Rationale

This revised BACT determination was required since USAC did not follow the Department's BACT requirement for the venturi-only option listed in the original determination; namely, the use of

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neutralized scrubbing water and a dedicated scrubber pond for settling of solids. USAC's proposal is to use a high-solids, environmentally inferior, recirculated scrubbing slurry (up to 15% P205) for product recovery reasons. This hot slurry (122 F.) will cause a higher fluoride content in the gas compared to pond water.

Due to the limited emission test data available for this type of plant, the Department issued a permit to USAC requiring that limits be established following completion of the compliance tests, as long as USAC followed the BACT requirements. USAC accepted the permit and its conditions, then submitted engineering calculations claiming that the venturi with its high-solids scrubbing water will provide gaseous fluoride removal equivalent to that of a two-stage scrubber system using much cleaner water from the process water cooling pond.

The Department responded by showing that USAC's scrubber would achieve only about half of the 5.3 transfer units claimed. This analysis was based in part on a technical paper that showed about 3.5 mass transfer units (vs. USAC's 5.3) would be the most that could reasonably be expected for a venturi removing fluorides using neutralized pond water. USAC's design engineers (the Jacobs Engineering Group in Lakeland, Florida) then sent a letter to USAC claiming 6.0 transfer units for their high-solids scrubbing water. This was based on their analysis of data in the above article. These data were obtained using neutralized, clean scrubbing water and not a slurry as the Jacobs design uses. A copy of Jacobs' original submittal, the Department's response, and Jacobs' followup letter is attached to the permit.

The Jacobs calculations are incorrect because of two improper assumptions. The extrapolated curve that Jacobs drew on Figure 5 of the article is not relevant for their unneutralized scrubbing water. Secondly, the data in Figure 5 cannot be infinitely extrapolated at constant L/G because the short contact time in the venturi throat prevents the mass transfer from increasing beyond a certain gas velocity. Attached is an extrapolation performed on Figure 6 which shows the variation of transfer units with the same variables as in Figure 5 but with pressure drop added. As shown, a maximum of 4.0 transfer units is obtained for the conditions specified by Jacobs, again keeping in mind that this is applicable only for neutralized water. The highest actual test result reported was 3.6 NTU with neutralized water, therefore, the Department's 2.7 NTU estimate is reasonable for the high-solids scrubbing slurry Jacobs has proposed.

The limitations on gas/liquid mass transfer in a venturi scrubber result primarily from the short contact time. Since the

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time is so short, there is a point beyond which mass transfer will not increase as additional transfer area is created by the smaller liquid drops formed with increased pressure drop.

To further substantiate the Department's analysis, attached is a copy of Dr. Aaron J. Teller's October 4 letter describing what would be required to achieve greater than 3.5 NTU. As he states, a throat velocity of 400 ft/s (122 m/s vs. Jacobs' 74 m/s), L/G of 12 gpm/1000 cfm (1.60 m³/1000 m³ vs. Jacobs' 1.23 m³/1000 m³), and pressure drop of 130 in.wc (3300 mm.wc vs. Jacobs' 483 mm.wc), would be required to achieve 4.2-5.2 NTU. The energy consumption required would be about 6-7 times higher than the Jacobs design calls for.

Conclusion:

As a result of the change in the basis for the emission limits, the fluoride BACT applicability comes under Rule 62-296.403(1)(i), F.A.C., instead of Rule 62-212.400, F.A.C. The Department believes that it will ultimately be necessary for the permittee to implement the technology specified by the Department to meet the BACT fluoride limit. If the permittee is unable to comply with the limit using the Jacobs scrubber design, the permittee will need to install the technology described by the Department or otherwise achieve the specified limit. The permittee will have one year to demonstrate compliance with the limit.

BACT Analysis Details Available From:

John Reynolds, Permit Engineer
A. A. Linero, P.E., Administrator
New Source Review Section
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road (MS 5505)
Tallahassee, Florida 32399-2400

Recommended by:

Approved by:

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

Howard L. Rhodes, Director
Division of Air Resources Management

_____, 1996
Date

_____, 1996
Date

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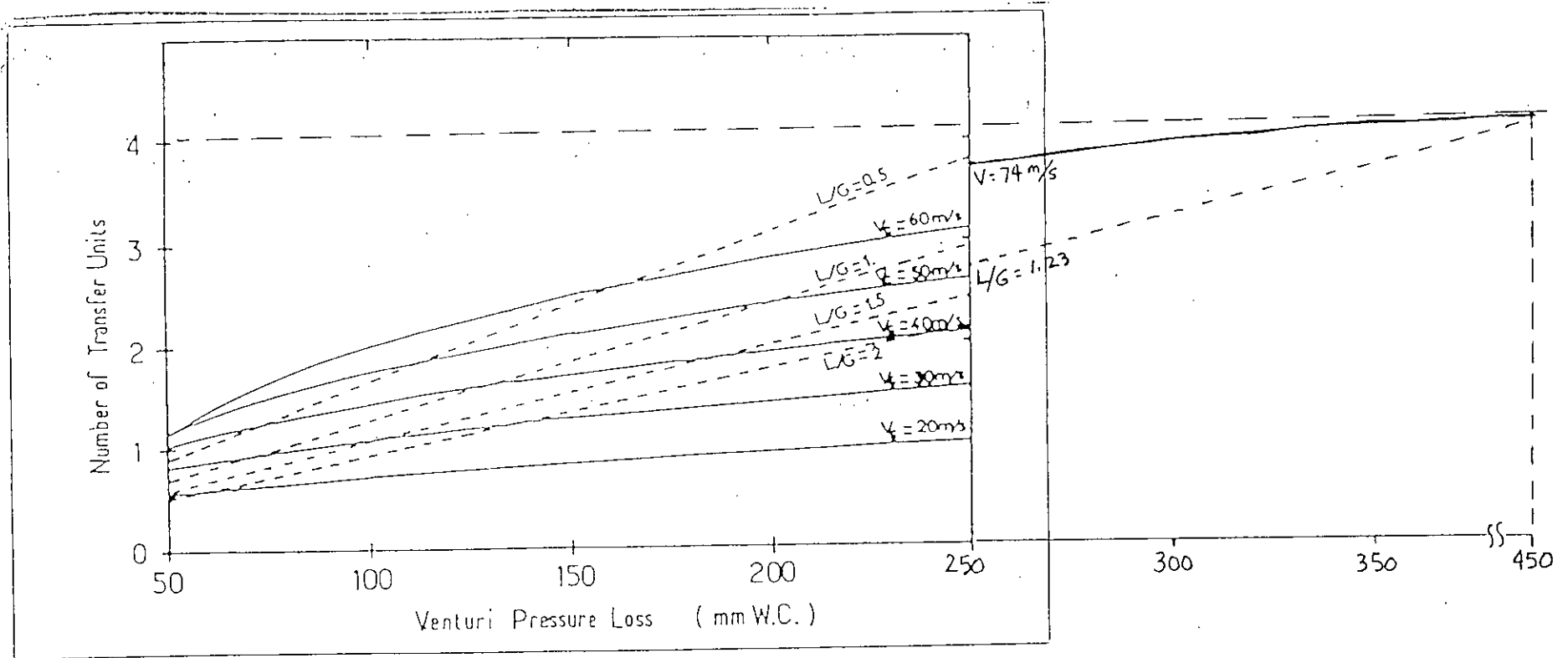


Figure 6. NTU vs. pressure loss. L/G and V_c are taken as parameters. $T_{GE} = 60^\circ\text{C}$ and $Lv/Dc = 8.5$.

DR. AARON J. TELLER
47 ST. JAMES DRIVE
PALM BEACH GARDENS, FL 33418

4 Oct 1996

Mr. John Reynolds
Dept of Environmental Protection
Twin Towers Office Bldg
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

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BUREAU OF
AIR REGULATION

Dr. Mr. Reynolds,

It was indicated that a claim for achievement of 5.3 Transfer units was made for a fluoride scrubbing process using a venturi.

It should be noted that the venturi is inherently a particulate collection device and is used only as a scrubber of last resort. The reason is that the mass transfer is limited because of minimal surface renewal. The deficiency can be overcome by decreasing the particle size of the spray and increasing the U/G , provided cost of operation is not restrictive.

Inasmuch as a venturi is generally followed by a cyclone separator, an additional transfer unit can be attained due to wetted wall action.

A comparison of performance of venturi-cyclone systems is attached (Table I). As noted, the rational range of operation will provide in the region of 3.5 transfer units. The 5 transfer unit range can be achieved if the client will accept an energy consumption of 370 HP/10000 CFM.

Sincerely
AJT

TABLE I
 VENTURI - CYCLONE SEPARATOR
 PERFORMANCE

SYSTEM	THREAT VEL, FPS	L/G GAL/1000CFM	ΔP in w.g.	HP - GAS + LIQ / 1000 CFM	NTU Transfer UNITS
VENTURI - CYCLONE	140	12	16	45	2.2 - 2.6
VENTURI - CYCLONE	250	12	50	150	3.2 - 4.0
VENTURI - CYCLONE	400	12	130	370	4.2 - 5.2