



KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 • FAX 377-7158

KA 173-94-04

September 12, 1995

RECEIVED

SEP 15 1995

Mr. John Reynolds
Florida Department of
Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Bureau of
Air Regulation

Subject: Comments on FDEP's Draft Permit
US Agri-Chemicals Corporation
MAP Prill Plant
DEP File No. AC53-260190, PSD-FL-222

Dear Mr. Reynolds:

This is to document your telephone conversation on September 7, 1995, with Pradeep Raval regarding the above mentioned draft permit.

1. Based on the conversation, it is our understanding that the permit expiration date will be December 30, 1997.
2. It is our understanding that the following is implied on Page 6 of 7, S.C. 11.d.:

"In case of excess emissions resulting from malfunctions, beyond those addressed in 11.a. above, each source..."

3. Based on the conversation regarding the BACT Determination, it is our understanding that the following is valid:

As no performance data are readily available for a recently constructed prilled MAP plant to facilitate setting emission limitations pursuant to BACT, USAC is not opposed to the Bureau of Air Regulation setting such emission limitations at a later date so long as the limits are realistic. Appropriate emission limits would have to be based on plant performance data over a reasonable period of time; allow for normal fluctuations associated with the process; and, allow for variation in the quality of raw materials.

The control efficiencies mentioned by FDEP in the BACT evaluation as "target" scrubber efficiencies are for design purposes only, since there are no relevant data from other prilled MAP plants. Given a critical construction schedule, it is expected that the final scrubbing system design, based on BACT criteria, will be reviewed by the FDEP permit processor, within 30 days of submittal.

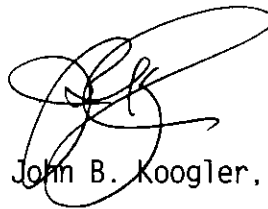
Mr. John Reynolds
Florida Department of
Environmental Protection

September 12, 1995
Page 2

If you have any questions, please call Pradeep Raval or me.

Very truly yours,

KOGLER & ASSOCIATES



John B. Koogler, Ph.D., P.E.

JBK:par

c: Steve Susick, USAC





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ENVIRONMENTAL SERVICES
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GAINESVILLE, FLORIDA 32609
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KA 173-94-04

August 14, 1995

RECEIVED

AUG 15 1995

Bureau of
Air Regulation

Mr. A. A. Linero
Florida Department of
Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Comments on FDEP's Draft Permit
US Agri-Chemicals Corporation
MAP Prill Plant
DEP File No. AC53-260190, PSD-FL-222

Dear Mr. Linero:

We have reviewed FDEP's draft permit package on the above referenced project. Comments on the Department's Technical Evaluation and Preliminary Determination and draft permit are presented below.

We have no comments of significance on the Intent to Issue or the Notice of Intent to Issue.

COMMENTS ON TECHNICAL EVALUATION

1. General Comment: It is our understanding that while gaseous fluorides are mentioned in the Technical Evaluation and BACT Determination as an air pollutant, fluorides will be permitted (emission limits/test requirements) on the basis of total fluorides.
2. Page 2, Section II, Paragraph 1: The final prilled MAP process design could be based on the Swift or another process.
3. Page 2, Section II, Paragraph 2: As no performance data are readily available for a recently constructed prilled MAP plant to facilitate setting emission limitations pursuant to BACT, USAC is not opposed to FDEP setting such emission limitations at a later date so long as the limits are realistic. Appropriate emission limits would have to be based on plant performance data over a reasonable period of time; allow for normal fluctuations associated with the process; and, allow for variation in the quality of raw materials. We recommend the use of the emission limits based on a 99th percentile confidence level based on several performance tests over a six month period after completion of construction.

4. Page 3, Section II, Paragraph 1: USAC will accept the preliminary BACT limit of 0.0417 lb F/ton P205. This is the most stringent fluoride emission limit established under the BACT criteria by FDEP for a MAP/DAP plant. The control efficiencies mentioned by FDEP in the BACT evaluation as "target" scrubber efficiencies, for design purposes only, are based on data from other than prilled MAP plants. If FDEP requires additional justification for the BACT limit of 0.0417 lb F/ton P205, USAC will provide FDEP with an update on the BACT cost analyses for scrubbing system alternatives when detailed design information is available.
5. Page 4, Section IV, Paragraph 5: Although not of consequence for this project, the background ambient air concentration for PM should be adjusted downward to avoid potential "double counting" of impacts from sources in the vicinity of the ambient monitor.

COMMENTS ON DRAFT PERMIT

6. Page 1 of 7, Permit Expiration Date: It is requested that the permit expiration date be revised to December 30, 1997, in order to provide adequate time for construction, process debugging, performance testing, discussions with FDEP, and the issuance of the air operation permit.
7. Page 1 of 7, Project Description: See Comment 3 above, regarding setting of emission limits after construction.
8. Page 5 of 7, S.C. 5: See Comment 3 above, regarding the time frame for performance testing relative to setting of emission limits after construction.
9. Page 5 of 7, S.C. 6: See Comment 3 above, regarding the time frame for performance testing.
10. Page 6 of 7, S.C. 11.d.: This condition should be clarified by amending the wording as follows:

" In case of excess emissions resulting from malfunctions, beyond those addressed in 11.a. above, each source..."

COMMENTS ON BACT

11. Page 2, Paragraph 3: See Comment 3 above, concerning setting of emission limits after construction.
12. Page 2, Paragraph 4: See Comment 4 above, on control efficiencies.



Mr. A. A. Linero
Florida Department of
Environmental Protection

August 14, 1995
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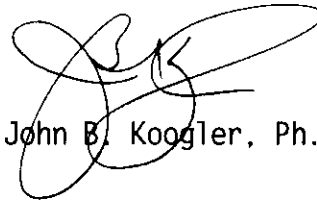
As you are probably aware, USAC has filed for an extension of time within which to file for a hearing. This petition is expected to allow adequate time to discuss the above issues of concern with FDEP. We look forward to a prompt resolution of matters concerning this project.

We appreciate the effort of FDEP staff, especially Mr. John Reynolds and Ms. Kate Zhang, in providing prompt review of the information submitted in conjunction with the above project.

If you have any questions, please call Pradeep Raval or me.

Very truly yours,

KOGLER & ASSOCIATES



John B. Koogler, Ph.D., P.E.

JBK:par

c: Steve Susick, USAC

B. Thomas, SWD
J. Harper, EPA
J. Bunyak, NPS
C. Holladay, BAR
R. Harwood, Polk Co.
J. Reynolds, BAR



al



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

RECEIVED

AUG 11 1995

Bureau of
Air Regulation

4APT-AEB

AUG 07 1995

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

SUBJ: United States Agri-Chemicals Corporation (USACC), Fort
Meade, Polk County, Florida (PSD-FL-222)

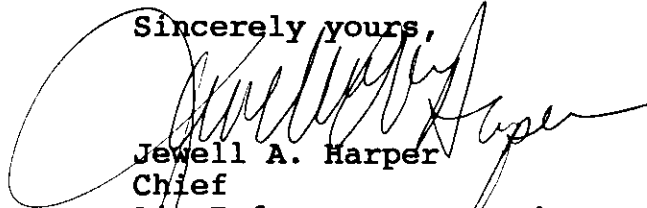
Dear Mr. Fancy:

This is to acknowledge receipt of your preliminary determination and draft Prevention of Significant Deterioration (PSD) permit for the major modification to the above referenced phosphate fertilizer manufacturing facility by your letter dated June 29, 1995. The proposed project consists of the addition of a new prilled monoammonium phosphate (MAP) plant. The production rate of the new prilled MAP plant is expected to be approximately 60 tons per hour (TPH). The Swift prill tower process will be used to produce the prilled MAP. Diluted wet process phosphoric acid is reacted with ammonia vapor in a pipe reactor above the louvered prill tower. Solid MAP particles called "prills" are collected in a hopper at the bottom of the tower.

We agree with your determination that either a combination medium energy primary venturi/packed secondary crossflow scrubber system, or a medium to high energy venturi scrubber system, could be considered representative of Best Available Control Technology (BACT) for control of tower and cooler particulate and fluoride emissions. The combination wet scrubber system would use recirculated gypsum/cooling pond water, while the medium to high energy system would utilize neutralized water from a dedicated scrubber pond with fresh water feed. Minimum removal efficiencies of 99.3 and 99.0 percent for fluoride and particulate, respectively, will be required for any prill tower wet scrubber system. Fabric filtration may also be considered representative of BACT for control of particulate emissions from product loadout operations. The proposed prilled MAP plant will utilize both the existing phosphoric acid transfer and storage system, and product storage building. Other material handling equipment will not be modified to accommodate the new MAP plant.

As discussed between Mr. John Reynolds of your staff and Mr. Stan Kukier of my staff on July 25, 1995, we have reviewed the package as submitted and have no adverse comments. Thank you for the opportunity to comment on this package. If you have any questions, please contact Mr. Stan Kukier of my staff at (404) 347-3555, voice mailbox extension 4143.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Jewell A. Harper". The signature is written in black ink and is positioned to the right of the typed name.

Jewell A. Harper
Chief
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division