file

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

FAX TRANSMITTAL FORM

TO: Cleve Holladay + Willard Hanks
FDER

FROM: Pradeep Lawal
K+A

PROJECT: 123-92-01

SENT BY: Marion

DATE: 5/15/92

FAX PHONE: 904-377-7158

The text being transmitted consists of 4 pages PLUS this one.

REMARKS: Please copy both Cleve and Willard on this transmittal. Thanks. PR

MEMORANDUM

TO: Mr. Cleve Holladay

FROM: Pradeep Raval

DATE: May 15, 1992

SUBJECT: Air Quality Analysis
Farmland Hydro, L.P.

A. INTRODUCTION

The proposed MAP/DAP North plant production increase will result in a greater than the PSD significant increase in fluoride emissions as defined by FAC Rule 17-2.500, but less than a significant increase in particulate matter emissions and emissions of other pollutants. Therefore, the project is subject to PSD review requirements contained in FAC Rule 17-2.500 for fluorides. Part of these requirements is an air quality impact analysis which includes:

1. An analysis of existing air quality;
2. A PSD increment analysis;
3. An Ambient Air Quality Standards (AAQS) analysis;
4. An analysis of impacts on soils, vegetation, visibility and growth-related air quality impacts; and
5. A Good Engineering Practice (GEP) stack height determination.

In the case of the proposed MAP/DAP North Plant project, no PSD or AAQS

analysis was required since there is no PSD increment or Ambient Air Quality Standard established for fluorides. No ambient monitoring was deemed necessary for the proposed project based on the historical ambient air data and the relatively small projected ambient impacts. The predicted ambient air impact analysis was based on air quality dispersion modeling completed in accordance with EPA guidelines.

Based on the required analyses, the Department has reasonable assurance that the proposed MAP/DAP North Plant project, as described in this report and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of any PSD increment or ambient air quality standard. A brief description of the modeling methods used and the results of the required analyses follow. A more complete description is contained in the permit application on file.

B. MODELING METHOD

The EPA approved Industrial Source Complex Short-Term (ISC-ST) dispersion model was used by the applicant to predict the impact of the proposed project on the surrounding ambient air. All recommended EPA default options were used. Direction-specific downwash parameters were used because the stacks were less than the good engineering practice)GEP) stack height. Five years of sequential hourly surface and mixing depth data from the Tampa, Florida National Weather Service (NWS) station collected during 1982 through 1986 were used in the model. The results of the modeling presented below show the predicted increases in ambient ground-level concentrations for all averaging times.

METEOROLOGICAL DATA	FLUORIDE IMPACT (ug/m^3)		
	ANNUAL	8-HOUR	24-HOUR
1982	0.22	5.62	2.02
1983	0.18	5.33	3.41
1984	0.16	5.64	2.44
1985	0.15	6.66	2.45
1986	0.15	5.65	2.72
De minimis Impact 17-2.500 (3)(e)1,FAC	NA	NA	0.25

Based on the modeling results, historical ambient data, and the limitations of the available ambient fluoride monitoring methods, FDER concluded that ambient air monitoring for fluorides will not be required for the proposed project.

C. ADDITIONAL IMPACT ANALYSIS

Based on the modeling results, no adverse impacts are expected at the nearest Class I area (Chassahowitzka National Wildlife Refuge) located more than 100 km from the Farmland Hydro, L.P. facility. Also, no harmful effects on soils and vegetation are expected from the proposed project. In addition, the proposed fertilizer production increase will not significantly change employment, population, housing, or commercial/industrial development in the area to the extent that a

significant air quality impact would result.

D. CONCLUSION

Based on the information provided by Farmland Hydro, L.P., the Department has reasonable assurance that the proposed MAP/DAP North Plant project, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.

MEMORANDUM

TO: Mr. Willard Hanks
FDER, Tallahassee

FROM: Pradeep Raval

DATE: April 20, 1992

SUBJECT: Additional Information on Farmland Hydro, L.P.
North Plant MAP/DAP Modification

This is in response to your request to identify the overall fluoride control in the proposed MAP/DAP North Plant project.

The fluorides in the feed to the North plant under DAP and MAP production mode will be 114.54 and 91.65 pounds fluoride/per ton of P_2O_5, respectively.

Based on the proposed fluoride emission limit of 0.06 pound per ton of P_2O_5, the overall process control efficiency can be estimated as follows:

MAP Mode:

Fluoride Control Eff. = (91.65 - 0.06)/91.65 x 100

= 99.9%

DAP Mode:

Fluoride Control Eff. = (114.65 - 0.06)/114.65 x 100

= 99.9%

It is anticipated that this response will satisfy the only remaining question you had on the proposed project.

If you have any additional questions, please do not hesitate to give me a call.

MEMORANDUM

RECEIVED
APR 16 1992
Bureau of
Air Regulation

TO: Willard Hanks, FDER Tallahassee

FROM: Pradeep Raval

DATE: April 16, 1992

SUBJECT: Additional Information on Farmland Hydro, L.P.
North Plant MAP/DAP Modification

This is in response to the questions you raised in our telephone conversation on April 7, 1992, concerning the North Plant's MAP/DAP project. The questions are listed below followed by the responses.

QUESTIONS

1. Confirm that Farmland will discontinue GTSP production capability.

2. What additional materials (state quantities) are used in the North Plant besides those listed in the application form (eg., lime, sulfuric acid, etc.)?

3. Is RACT applicable to the source as a result of any significant impact of Farmland on the Hillsborough County particulate matter nonattainment area?

4. Identify overall scrubber efficiencies.

5. Explain why the R/G stack temperature is as high as 178°F despite a wet scrubbing system on line.

6. FDER requires a review of all sources for which there will be an actual emissions increase as a result of the proposed project.

7. Address MAP/DAP storage and shipping building emission changes.

8. Since the particulate matter emissions during a compliance test in 1991 are not representative of normal operations, submit revised calculations that reflect representative emission rates.

9. The BACT review should address all available control technology. For fluorides, the addition of lime to the recirculated tail gas scrubber water should be evaluated if it enhances fluoride emission reduction. If such a system is technically feasible, a cost analysis should be done to

see if the system would be cost effective on an annualized basis in terms of dollars/ton fluoride removed.

10. Describe how Farmland handles ammonia from the point it is received at the facility until it is used in the process. State the measures taken to reduce/minimize fugitive ammonia emissions from the system. Address ammonia emissions from the ammonia storage tank safety (pop-off) valve.

11. Reconcile air emissions presented in Section 3.1.2 and Table 3-3.

12. Are the ammonia emission estimates in the permit application accurate.

RESPONSES

1. The MAP/DAP North Plant will not retain any GTSP production capability after the proposed modification.

2. The minor ingredients used in MAP/DAP process are discussed in Attachment 1.

3. The Farmland Hydro, L.P. facility does not have a significant impact on Hillsborough County's particulate matter nonattainment area (see FDER's letter presented in Attachment 2).

4. The overall control efficiency of the scrubbing system proposed for the MAP/DAP North Plant is about 99 percent for particulate matter and ammonia. The fluoride scrubbing efficiency is addressed in more detail in Attachment 3.

5. The Reactor Granulator (R/G) exhaust temperature is explained in Attachment 4.

6. The proposed modification will result in an increase in the overall facility's material throughput. However, none of the existing permits covering operations of various chemical process and material handling sources will need to be modified as a result of the proposed project. The sulfuric acid, phosphoric acid and material handling/storage/shipping facilities will continue to operate in full compliance with their existing permits. There will be no net emission increases (as defined in FAC Rule 17-2.500) resulting from the proposed project beyond those documented in the MAP/DAP North plant modification application. The sulfuric and phosphoric acid plants have been permitted in accordance with the preconstruction review requirements under FAC Rule 17-2.500 and are not subject to a modification review at this time (see Attachment 5). The increased product handling in the storage and shipping building is addressed in Response 7.

7. The existing permit for the fertilizer product storage and shipping building addresses emissions of particulate matter. Although the permitted emission limits are based on the Process Weight Table, actual emissions from the building can be estimated based on the operation of the

scrubber which controls the particulate matter. The current actual emissions can be estimated using the exit flow rate, particulate loading (0.02 gr/dscf) and annual operating hours. The proposed emissions calculations would be based on the same numbers since the fan gas flow rate, particulate loading (0.02 gr/dscf) and annual fan operating hours will not change. Therefore, there will be no increase in the estimated actual emissions of particulate matter from the MAP/DAP storage and shipping building as a result of the proposed project.

8. As recognized by FDER, the particulate matter emission rate reflected by the 1991 compliance test is not representative of normal operations as indicated in the application. The following revised calculations reflect 1989 compliance test results (3/28/89, 7/28/89 and 9/22/89) and operating hours:

1989 PM = (10.16 + 13.78 + 11.22) lbs/hr /3

x 7071 hrs/yr x ton/2000 lbs

= 41.4 tpy

1990 PM = 48.9 tpy (documented in the application)

1989-1990 PM = (41.4 + 48.9) tpy /2

= 45.2 tpy

The corresponding net emission increase can be estimated as follows:

Net Change = New Estimate - Previous Estimate

= (45.2 - 35.1) tpy

= 10.1 tpy

Net PM Increase = Previous Estimate - Net Change in Calculated Actuals

= (14.1 - 10.1) tpy

= 4.0 tpy

9. Additional information on the fluoride BACT analysis is presented in Attachment 3.

10. A discussion on ammonia handling is presented in Attachment 6.

11. There are a few typographical errors which need to be corrected in the emission tables presented in the permit application package, as follows:

LIST OF CORRECTIONS

Page No.	Process	Pollutant	Correct Emissions lb/hr	tpy
36	MAP	Ammonia	OK	135.47
37	MAP	PM	22.50	98.55
37	MAP	F	3.74	16.38
56	DAP	PM	16.14	70.69

12. The ammonia emission estimates presented in the application of 37.9 pounds per hour for MAP and 46.7 pounds per hour for DAP reflect the most current information available on the process design. The North Plant is expected to operate within those estimated emissions based on a 24-hour (daily) average basis.

It is anticipated that the information provided in this response will help expedite the review of the proposed project.

ATTACHMENT 1

Minor Ingredients Used In Granulation:

Several chemicals are used from time to time in the granulation of DAP and MAP depending on the need at the time of production. These minor ingredients are sulfuric acid, nitric acid, defoaming agents and lignosulphonates. These ingredients are used in the following ways;

Sulfuric acid is used to increase the nitrogen content of the finished product by causing the formation of ammonium sulfate. The problem with using this is that the compound dilutes the final product and the weight percent of phosphate (P_2O_5) becomes lower. In fact, sulfuric acid reduces the P_2O_5 content over 10 times greater than it increases the nitrogen (N). We have used sulfuric acid in the past only one or two days per year for a total consumption less than 40 tons of 100% H_2SO_4.

Nitric acid has been used to a much greater extent than sulfuric acid as a nitrogen booster. This causes the formation of ammonium nitrate which dilutes the P_2O_5 by less than three times the increase in N. We have used nitric acid an average of 11.5 tons per day of 100% HNO_3. This represents about 0.65% of the finished product.

Defoamers are added as needed to the scrubbing recirculation pots containing the 28% scrubbing liquor. According to the MSDS this is a sodium salt of sulfonated fatty acids. There is no hazardous ingredients and no OSHA exposure limits. During the last production year we have used a average of 1.5 lbs. of defoamer per ton of product produced.

The use of lignosulphonates (lignin) has been mostly on an experimental basis as a granulation conditioner and dust control agent. Lignin is a by-product of the calcium bisulfite pulping process. Lignosulfonates are derived from lignins, a family of three-dimensional polymers which bind together the cellulose fibers in wood. The MSDS also lists no hazardous ingredients and no health hazards. We have used a total of about 200,000 gallons in last year's production. This amounts to less than 2 lbs. per ton of product produced.

ATTACHMENT 2

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

October 11, 1982

Mr. Gene Meier
Director, Technical Services
Farmland Industries, Inc.
P. O. Box 960
Bartow, Florida 33830

Re: Evaluation of Refined Modeling Submitted in Support of Exemption from Rule 17-2.650(2), Florida Administrative Code (FAC).

Dear Mr. Meier:

The Department has reviewed the dispersion modeling submitted to show compliance with the exemption criteria of Section 17-2.650(2)b.2., FAC, i.e. to demonstrate an insignificant impact on the Tampa particulate matter nonattainment area. The modeling was found to be complete and run within the guidelines set forth by the Department. Since the maximum highest, second-highest 24-hour concentration predicted to occur on the nonattainment area was less than 5.0 ug/m^3 over a five year period and the maximum annual concentration was less than 1.0 ug/m^3, the Department finds that Farmland Industries' Green Bay plant meets the exemption criteria set forth in the rule given the emission characteristics defined in the modeling.

Sincerely,

for Steve Smallwood, P.E.
Chief
Bureau of Air Quality
Management

SS/TR/bjm

cc: Dan Williams
Anthony Jones

ATTACHMENT 3

Concerning Fluoride Scrubbing Efficiency:

During the granulation of wet phosphoric acid into either DAP or MAP using the conventional TVA rotary granulator with preneutralizer process, the neutrilization, granulation, crushing, screening, and transport of dry product does not liberate large quantities of fluoride. The gas streams form the granulation equipment contain mostly water vapor, gaseous ammonia and dust which later have to be scrubbed before discharge to the atmosphere. Low strength phosphoric acid (about 28% P_2O_5 by weight) is used to capture the ammonia and dust and return it to the granulation process. Fluoride, in various forms is, liberated from the acid into the air stream in the acid scrubbing stage. This fact causes a problem in determining fluoride scrubbing efficiency; that is, compared to the normal perception of efficiency defined as the removal of a percentage of a pollutant entering the scrubbing system. This fluoride liberation (release) is in proportion to the fluoride vapor pressure developed in the scrubbing liquor and the vapor pressure is influenced by two factors; temperature of the scrubbing liquor, and concentration of available fluoride. Fluoride control therefore, is achieved by reducing the fluoride vapor pressure in the scrubber system. Fluoride scrubbing efficiency often turns out to be in the order of as much as -200% efficiency or in other words, twice as much fluoride exits the acid scrubbing stage as enters while efficiencies for ammonia and dust are typically above 98%.

One way to reduce the vapor pressure of fluoride in the scrubber is to increase the ammonia to phosphoric acid mole ratio of the scrubbing acid or in other words to increase the pH of the scrubbing acid. The increased ammonia tends to hold the fluoride in combination with other elements in the acid therefore, not allowing it to be liberated into the air stream. A second method of reducing the fluoride vapor pressure is to lower the concentration of fluoride in the acid scrubbing liquor. 28% P_2O_5 phosphoric acid typically contains from 2.0 to 2.5% fluoride, therefore, lowering the strength to about 10% by diluting it with pond water with a fluoride content of about 0.45%, results in a final concentration of about 1.0% fluoride.

The Cooler, Dryer and Screens & Mills (S/M) scrubbers will all be modified to utilize low strength (about 10% P_2O_5) acid taking advantage of the second method of fluoride release control. These scrubbers collect mostly product dust which has a high mole ratio (1 for MAP and 2 for DAP). When this dust is captured in the weak acid, it tends to quickly increase the mole ratio of the weak scrubbing liquor and as some gaseous ammonia is released in the dryer, the weak scrubbing liquor will have mole ratios in the order of 1.0 to 1.5. This increased mole ratio raises the pH of the weak acid scurubbing liquor thus, taking advantage of the first fluoride vapor pressure reduction method as well. A 0.5 or better mole ratio is considered the optimum for reduction of fluoride release.

The dual mole scrubber system is designed to reduce fluoride emissions by increasing the mole ratio of the scrubbing liquor. Under normal operation the first stage would have a mole ratio of about 1.4 while the second stage would be about 0.5. The end result is that the Reactor/Granulator (R/G) and the above three scrubbers liberate less fluoride containing compounds into the air stream than conventional 28% P_2O_5 acid scrubbers.

In order to remove fluoride compounds from the scrubber gas steam you must consider tail gas scrubbers. The BFL vaporizer/scrubber is the tail gas scrubber for the dual mole scrubbing of the R/G gases. During DAP production the fluoride scrubbing efficiency is about 70.7% and during MAP production about 75.5%. These efficiencies seem low but in concert with the lower evolution of fluoride experienced with the dual mole scrubber, we should be able to meet an emission value of 0.024 lb/ton P_2O_5 for DAP and 0.029 for MAP from the Reactor/Granulator scrubbing system.

The Dryer and S/M scrubbers are followed by a counter current cross-flow scrubber. This scrubber uses the complex pond water as a scrubbing medium. The fluoride concentration in the Farmland Hydro pond water runs a maximum of about 0.45% which is lower than most phosphate fertilizer manufacturers because we recover fluorine in our evaporators and sell it as a by-product. By comparison, it is not unusual to see fluoride values in other manufacturers' pond water of over 1.0%. Large amounts of pond water (about 1,200 gpm) are used in this scrubber and therefore the exiting air contains about as low a concentration of fluoride as can be achieved with pond water even though the actual scrubbing efficiency works out to be less than 4%. Expected emissions would be 0.014 lb/ton P_2O_5 for DAP and 0.011 for MAP from the cross-flow scrubber.

The cooler scrubber is shown without tail end scrubbing and this could be done with pond water as the scrubbing liquor for a capital cost of about $500,000.00 amortized over 20 years of life plus about $2,000.00 per year power cost and $5,000.00 per year maintenance for a yearly cost of $65,730.00. Assuming the same efficiency as the BFL vaporizer of 75.5%, this would result in a reduction from a maximum of 5.3 tons per year of fluoride to a maximum of 1.3 tpy. The cost of this reduction would be $16,433.00 per ton.

It has been proposed that neutralization of the scrubbing water with lime (calcium oxide) would cause the fluoride in the water to form calcium-fluoride (CaF_2) which precipitates and produces a low fluoride tail gas scrubbing liquor. Test results show that neutralization to a pH of about 4 will result the lowest practical achievable fluoride concentration of about 300 to 500 ppm. If large amounts of water are used (in the order of 15 to 20 gallons per 1,000 cubic feet of air) we could obtain exhaust temperatures of about 120 °F and could achieve about 95% fluoride

scrubbing efficiency. This would result in a reduction of maximum fluoride emissions per year of 15.6 tons.

An appropriate system for the liming scrubbing water would require a separate granulation cooling pond of approximately 30 acres at a nominal 5 foot depth for a total of 45 million gallons. The scrubbing requirements would be about 3,000 gallons per minute (gpm). Pumping requirements are assumed to be 3,000 gpm at 50 feet of head requiring 58 horsepower at 65% pumping efficiency. At $0.05 per kwh, we would consume about $22,400 per year pumping cost. A lined 30 acre pond would cost about $4,500,000 complete. The estimated cost of the liming station and associated piping and pumping is $1,500,000 and the cost of operating, including power cost, about $15,000 per year.

The practical problems that would be encountered with such a design are that the water will also pick up ammonia. Assuming that the ammonia scrubbing efficiency is only 50%, at a maximum of 205 lb/hr input, a scrubber return water loading of 102.5 lb/hr would be generated, for a return water concentration of about 68.3 ppm. Assuming at least 10% blow-down to keep the ammonia concentration near that of pond water or about 650 ppm, and using as much of this water in the granulation process as possible and performing a heat balance around the pond results in a net make-up of 282 gpm. As we would use our pond water as the make-up, then we would need to lime this water at 853 lbs. per hour. Total liming cost for the make-up water is about $186,800 per year. One other problem would be encountered and that is the problem of disposal of the sludge generated by the liming process. There would be about 3,759 tons per year generated and if a disposal cost of $50.00 per ton is assumed, this amounts to an annual cost of $261,650. Looking at this whole system on an annual cost basis assuming a 20 year life with an annual rate of return of 10% gives:

$6,000,000 @ 10% for 20 years	$704,758
lime cost	189,150
power	22,300
operating	15,000
maintenance	10,000
sludge disposal	261,650
TOTAL	$1,202,938

The total cost to reduce the pollutant loading by 15.6 tons of fluoride per year is:

1,202,938/15.6 = $77,110 per ton

In conclusion, lower total emissions of fluoride can not practically be achieved without excessive expenditures on the part of the applicant. It is my understanding that Mississippi Chemical tried this scrubbing method several years ago and found that operating problems involving calcium build-up or fall-out in the tail gas scrubber caused them to switch to straight pond water scrubbing.

ATTACHMENT 4

Concerning the R/G Stack Temperature:

The Reactor Granulator (R/G) scrubber gas exhaust will contain about 42% water by volume, which accounts for the higher than anticipated (178 °F) stack temperature. This stack moisture content is high due to the fact that the ammonia vaporization does not require all the heat the stack can give-up. This should not pose an emission problem however, since experience has shown that the dual mole scrubber releases less fluoride than a conventional single pass acid scrubber.

"new" emissions levels for a new or modified emissions unit which has not begun normal operation is its potential to emit.

An emissions increase or decrease is creditable only if the relevant reviewing authority has not relied on it in issuing a PSD permit for the source, and the permit is still in effect when the increase in actual emissions from the proposed modification occurs. A reviewing authority relies on an increase or decrease when, after taking the increase or decrease into account, it concludes that a proposed project would not cause or contribute to a violation of an increment or ambient standard. In other words, an emissions change at an emissions point which was considered in the issuance of a previous PSD permit for the source is not included in the source's "net emissions increase" calculation. This is done to avoid "double counting" of emissions changes.

> *For example, an emissions increase or decrease already considered in a source's PSD permit (state or federal) can not be considered a contemporaneous increase or decrease since the increases or decrease was obviously relied upon for the purpose of issuing the permit. Otherwise the increase or decrease would not have been specified in the permit. In another example, a decrease in emissions from having previously switched to a less polluting fuel (e.g., oil to gas) at an existing emissions unit would not be creditable if the source had, in obtaining a PSD permit (which is still in effect) for a new emissions unit, modeled the source's ambient impact using the less polluting fuel.*

Changes in PM (PM/PM-10), SO_2 and NO_x emissions are a subset of creditable contemporaneous changes that also affect the available increment. For these pollutants, emissions changes which do not affect allowable PSD increment consumption are not creditable.

ATTACHMENT 6

Concerning Ammonia Handling:

The ammonia handling system including tanks and associated piping and valves are installed according to the appropriate sections of the American National Standards Institute, Inc. (ANSI) Standard K61.1 titled Safety Requirements for the Storage and Handling of Anhydrous Ammonia. Farmland Hydro is involved with a self initiated/self imposed program of ammonia tank inspection on a schedule of every five years. During these times we also send out all valves and safety relief devices for certified repair. We have always been attentive to such things as valve stem and flange leaks. This is not only an environmental and safety concern but also a loss of a valuable commodity. Farmland several years ago had a problem with one particular ammonia safety relief valve on four separate occasions, which was supposed to release at above 250 psi and in fact was found to be defective and opened above 165 psi. It took some time to locate the problem and then the entire system had to be shutdown in order to replace the offending safety release valve.

Farmland Hydro presently receives all of their ammonia by pipeline but, when we received ammonia by rail cars we were careful to make sure that all unloading rubber hoses were in good working condition and that no liquid ammonia was left in the hoses before disconnecting rail cars.

Concerning ammonia use in the granulation of DAP and MAP, the control panel is equipped with an ammonia tank over-pressure alarm and an ammonia tank over-full alarm. No ammonia flows are started to the process without the appropriate scrubber system operating. And finally all pertinent scrubber functions will be monitored during operation to assure proper operation at all times. Farmland Hydro in conjunction with the Florida Phosphate Council is in the process of drafting a memorandum of understanding for best management practices for handling and using anhydrous ammonia.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
75 Spring Street, S.W.
Atlanta, Georgia
30303

April 10, 1992

RECEIVED
APR 13 1992
Bureau of
Air Regulation

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

Dear Mr. Fancy:

We have completed our review of the material that you sent us regarding Farmland Hydro's proposal to expand the granular monoammonium phosphate and diammonium phosphate production capacity at their Green Bay facility. The Green Bay Complex is located near Bartow, approximately 112 km southeast of the Chassahowitzka Wilderness Area (WA), a class I air quality area administered by the U.S. Fish and Wildlife Service. The higher production rates will result in a significant increase in fluoride emissions and a small increase in emissions of particulate matter. Based on this small increase in emissions and the distance from the facility, we do not anticipate that the proposed project will have an impact on sensitive resources in the Chassahowitzka WA.

We appreciate the opportunity to comment on Farmland Hydro's permit application. If you have any further questions regarding this matter, please contact Tonnie Maniero of our Air Quality office in Denver at 303/969-2071.

Sincerely yours,

John R. Eadie

John R. Eadie
Acting Regional Director

cc: Jellell Harper, Chief
Air Enforcement Branch
Air, Pesticides and Toxic Management Division
U.S. EPA, Region 4
345 Courtland Street, NE
Atlanta, Georgia 30365
N. Hamlin
C. Holladay
B. Thomas
CHF/BA/PL
R. Raval

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

March 27, 1992

Ms. Jewell A. Harper, Chief
Air Enforcement Branch
U.S. EPA, Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30308

Dear Ms. Harper:

RE: Farmland Hydro, L.P.
MAP/DAP Granulation Plant North
Polk County, PSD-FL-186

The Department has received the above referenced PSD application package. Please review this package and forward your comments to the Department's Bureau of Air Regulation. The Bureau's FAX number is (904)922-6979.

If you have any questions, please contact Willard Hanks or Cleve Holladay at (904)488-1344 or write to me at the above address.

Sincerely,

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

CHF/pa

Enclosures

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

March 27, 1992

Mrs. Chris Shaver, Chief
Permit Review and Technical Support Branch
National Park Service-Air Quality Division
Post Office Box 25287
Denver, Colorado 80225

Dear Mrs. Shaver:

RE: Farmland Hydro, L.P.
MAP/DAP Granulation Plant North
Polk County, PSD-FL-186

The Department has received the above referenced PSD application. Please review this package for completeness and forward your comments to the Bureau of Air Regulation. The Bureau's FAX number is (904)922-6979.

If you have any questions, please call Willard Hanks or Cleve Holladay at (904)488-1344 or write to me at the above address.

Sincerely,

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

CHF/pa

Enclosure

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

KA 123-92-01

March 26, 1992

Mr. Cleve Holladay
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Farmland PSD Permit Application

Dear Mr. Holladay:

As per our conversation today, enclosed is a diskette that contains the input and output modeling files of the fluoride and ammonia air quality impact analysis in support of the Farmland PSD permit application submitted previously.

If you have any questions concerning the data on the enclosed diskette, please give our office a call.

Very truly yours,

KOOGLER & ASSOCIATES

Pradeep A. Raval

PAR:mab

cc: Charles Jenkins, Farmland

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

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Company

Department/Floor No

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes)

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16 [ ] FEDEX LETTER *	56 [ ] FEDEX LETTER *
12 [ ] FEDEX PAK *	52 [ ] FEDEX PAK *
13 [ ] FEDEX BOX	53 [ ] FEDEX BOX
14 [ ] FEDEX TUBE	54 [ ] FEDEX TUBE
Economy Two-Day (Delivery by second business day†)	Government Overnight (Restricted to authorized users only)
30 [ ] ECONOMY	46 [ ] GOVT LETTER
	41 [ ] GOVT PACKAGE

Freight Service (for Extra Large or any package over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT ** (Confirmed reservation required)
80 [ ] TWO-DAY FREIGHT **
† Delivery commitment may be later in some areas
*Declared Value Limit $100
**Call for delivery schedule

5 DELIVERY AND SPECIAL HANDLING (Check services required)

1 [ ] HOLD FOR PICK-UP (Fill in Box H)
2 [ ] DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) [ ] (Not available to all locations)
4 [ ] DANGEROUS GOODS (Extra charge)
5 [ ]
6 [ ] DRY ICE ___ Lbs
7 [ ] OTHER SPECIAL SERVICE
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)
10 [ ]
11 [ ]
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6

PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE
Total	Total	Total

DIM SHIPMENT (Chargeable Weight)
[ ] ___ ___ ___ lbs
___ x ___ x ___ =
Received At
1 [ ] Regular Stop 3 [ ] Drop Box
2 [ ] On Call Stop 4 [ ] B.S.C. 5 [ ] Station

7 Release Signature.
FedEx Emp No Date/Time

Emp No Date
[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg To Del [ ] Chg To Hold
Street Address
City State Zip
Received By.
X
Date/Time Received FedEx Employee Number

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 6/91
PART #132011 FEB 2/92
FORMAT #(XX)
099