

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

August 27, 1984

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. J. C. Daniel, Manager
USS Agri-Chemicals
P. O. Box 867
Fort Meade, Florida 33841

Dear Mr. Daniel:

The department acknowledges receipt of your August 20, 1984, letter that provides additional information on the proposed modifications to your company's phosphoric and sulfuric acid plants.

As requested in the department's February 21, 1984, letter and discussed during the July 27, 1984, meeting in Tallahassee, the request for modifications must be submitted in quadruplicate on DER form 17-1.202(1) Application to Operate/Construct Air Pollution Sources.

The department will resume processing your request as soon as we receive the application fees and the completed application forms.

If you have any questions on this matter, please write me or call Willard Hanks at (904)488-1344.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/WH/s

cc: Bill Thomas
John Koogler

No. 0156552

RECEIPT FOR CERTIFIED MAIL

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

SENT TO		Mr. J. C. Daniel		
STREET AND NO.				
P.O., STATE AND ZIP CODE				
POSTAGE		\$		
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE		¢	
	SPECIAL DELIVERY		¢	
	RESTRICTED DELIVERY		¢	
	OPTIONAL SERVICES			
	RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED		¢
		SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY		¢
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		¢	
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		¢	
TOTAL POSTAGE AND FEES		\$		
POSTMARK OR DATE		8/28/84		

PS Form 3800, Apr. 1976

PS Form 3811, Jan. 1978

SENDER: Complete items 1, 2, and 3.
Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one.)
 Show to whom and date delivered.....
 Show to whom, date and address of delivery.....
 RESTRICTED DELIVERY
Show to whom and date delivered.....
 RESTRICTED DELIVERY.
Show to whom, date, and address of delivery.....

(CONSULT POSTMASTER FOR FEES)

2. ARTICLE ADDRESSED TO:
Mr. J. C. Daniel
P. O. Box 867
Ft. Meade, FL 33841

3. ARTICLE DESCRIPTION:
REGISTERED NO. CERTIFIED NO. INSURED NO.
0156552

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE Addressee Authorized agent
Phyllis Baggett

4. DATE OF DELIVERY
9-11-84

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE:

POSTMARK
FT. MEADE, FL
SEP 11 1984
U.S. MAIL

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL



Agri-Chemicals

Division of United States Steel

DEP
AUG 24 1984

MAIL: P. O. BOX 867
FORT MEADE, FLORIDA 33841
813/285-8121

BAQW August 20, 1984

Mr. C. H. Fancy
Deputy Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Northwest District Branch Office
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Subject: USS Agri-Chemicals
Ft. Meade Chemical Complex
Sulfuric Acid Plant & Phosphoric Acid Plant
Modifications, Concerning the PSD Application
Filed January 19, 1984

Dear Mr. Fancy:

In partial response to your letter of February 21, 1984, regarding construction permits to modify two existing sulfuric acid plants and two existing phosphoric acid plants at the USS Agri-Chemicals (USSAC) Ft. Meade Chemical Complex technical information was forwarded to your office and received on May 21, 1984. The issues not addressed in our response received on May 21st were discussed during a meeting with your staff in Tallahassee on July 27, 1984, and are addressed herein.

On May 21, 1984, information from Sholtes & Koogler, Environmental Consultants (SKEF) was received in your office regarding documents referenced in the calculation of fluoride emissions from the process water cooling pond. The documents included TRW (an EPA Contractor) interoffice correspondence dated August 27, 1980 and sections of EPA document 650/2-74-095. It is our understanding that the information, as received in your office on May 21, 1984, satisfies the request in your letter of February 21, 1984 for information on that specific issue.

Regarding the other issues addressed in your correspondence of February 21, 1984, representatives of USSAC met with Mr. Willard Hanks in your offices on July 27, 1984 to discuss the specific information that would be required to provide your staff with the information they need to complete the review of the subject permit applications. Based upon this meeting, the following information is provided to complete the Construction Permit applications for the modifications to the sulfuric acid and phosphoric acid plants.

Page 2
Mr. C. H. Fancy
PSD Application
August 20, 1984

Permit Fees

An additional permit fee of \$1,200 will be forwarded to the Tallahassee FDER offices by USSAC. This will complete the total fee of \$2,200 required for the four permit applications; \$1,000 for each of two sulfuric acid plants and \$100 for each of two phosphoric acid plants.

Physical Modifications to the Sulfuric Acid Plants

In the permit applications for the revisions to the sulfuric acid plants, it was stated that certain physical modifications would be necessary. As discussed during the July 27, 1984 meeting, the details of these physical modifications are not now known and will not be known until detailed engineering is completed to determine just where bottlenecks might occur. The one physical change that will almost certainly be involved is an increase in the amount of catalyst in the converter of the sulfuric acid plant. Possible physical changes might also be required to increase the acid cooling capacity or to increase the acid recirculation rate within the plant. Equipment in the sulfuric acid plants that will least likely require modification include the demisters for acid mist control, the sulfur burner, the absorber, the cooling tower and the blower.

In summary, USSAC can only state that the physical modifications that will be required are expected to be minor in nature and will not be fully known until the existing plant is run up to its limit and debottlenecking engineering is completed. It can be stated, however, that none of the changes will effect compliance with New Source Performance Standards (NSPS) for the sulfuric acid plant.

Phosphoric Acid Plant Modifications

The actual physical modifications are not known at the present time. However, modifications may be needed when the installed capacity is run to its limit. Modifications will be necessary only if the P_2O_5 recovery proves to be uneconomical.

Gypsum Disposal Area

The life of the gypsum disposal area associated with phosphoric acid production is a function of the phosphoric acid production capacity of the USSAC Ft. Meade Chemical Complex. The modifications to the two phosphoric acid plants will result in an approximate 25 percent increase in the permitted production rates. If it is assumed that when the plants operate at a production capacity greater than presently permitted, the life of the gypsum disposal area will be decreased proportionately.


Page 3
Mr. C. H. Fancy
PSD Application August 20, 1984

More germane to the subject permit applications is the wetted surface area on the gypsum disposal area and in the process water cooling ponds. The presently permitted wetted area in both the gypsum disposal area and the process water cooling pond is sufficient to provide the necessary cooling. There will be no increase in the wetted surface area on either the gypsum disposal area or the cooling ponds. The changes in fluoride emission rates from these wetted surface areas has been addressed in the permit application.

The information provided herein should complete the permit applications for the requested rate increases for the sulfuric acid and phosphoric acid plants at the USSAC Ft. Meade Chemical Complex. If additional information is required or if there are any questions regarding information contained herein, please do not hesitate to contact us.

Very truly yours,

USS AGRI-CHEMICALS

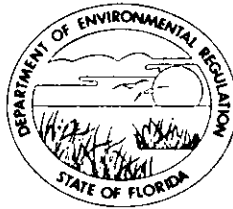

J. C. Daniel, Manager
Special Projects &
Environmental Engineering

JCD:myv

cc: Dr. J. B. Koogler

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

June 13, 1984

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. G. W. Beck, Manager
Administrative Services
USS Agri-Chemicals
P. O. Box 867
Fort Meade, Florida 33841

Re: Ft. Meade Chemical Complex PSD Application

Dear Mr. Beck:

This is to inform you that on May 21, 1984, we received your information concerning the EPA's document 650/2-74-095 and the TRW correspondence. Since a response to the additional questions was not included, your applications remain incomplete.

If you have any questions on this matter, please call Teresa M. Heron of this office at (904)488-1344 or write to me at the above address.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/TH/s

PS Form 3811, Jan. 1978

SENDER: Complete items 1, 2, and 3.
Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one.)
 Show to whom and date delivered.....
 Show to whom, date and address of delivery.....
 RESTRICTED DELIVERY
 Show to whom and date delivered.....
 RESTRICTED DELIVERY.
 Show to whom, date, and address of delivery.\$

(CONSULT POSTMASTER FOR FEES)

2. ARTICLE ADDRESSED TO:
 Mr. G. W. Beck
 P. O. Box 867
 Ft. Meade, FL 33841

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	0156518	

 (Always obtain signature of addressee or agent)
 I have received the article described above.
 SIGNATURE Addressee Authorized agent
Phillip Sager

4. DATE OF DELIVERY
 6-18-84

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE:

POSTMARK
 JUN 18 1984
 FT. MEADE, FL
 USA
 INITIALS

☆GPO : 1979-300-459

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

No. 0156518
 RECEIPT FOR CERTIFIED MAIL
 NO INSURANCE COVERAGE PROVIDED—
 NOT FOR INTERNATIONAL MAIL
 (See Reverse)

SENT TO		Mr. G. W. Beck
STREET AND NO.		
P.O., STATE AND ZIP CODE		
POSTAGE		\$
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	¢
	SPECIAL DELIVERY	¢
	RESTRICTED DELIVERY	¢
	OPTIONAL SERVICES	
	RETURN RECEIPT SERVICE	
	SHOW TO WHOM AND DATE DELIVERED	¢
	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		\$
POSTMARK OR DATE		

6/15/84

PS Form 3800, Apr. 1976



SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS
1213 N.W. 6th Street Gainesville, Florida 32601 (904) 377-5822

SKEC 173-82-08

May 18, 1984

Mr. Clair Fancy
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Subject: Polk County - AP
USS Agri-Chemicals
Ft. Meade Chemical Complex PSD Application

DER

MAY 21 1984

BAQM

Dear Mr. Fancy:

In partial response to your letter of February 21, 1984, I am forwarding, in its entirety, one of the references cited in the referenced PSD application and pertinent information from a second cited reference.

In the PSD application for the USSAC Chemical Complex, we cited correspondence from TRW related to fluoride emissions from process water cooling ponds in the phosphate fertilizer industry and a document published by EPA that contained vapor pressure data for fluoride over pond water. Attached hereto is a complete copy of the TRW interoffice correspondence prepared by Mr. Jack Preece and dated August 27, 1984. Mr. Preece is now with the FDER office in Pensacola.

We have never had a complete copy of EPA Document 650/2-74-095 and in the PSD application we only recited a reference to this document that was originally made in the above reference TRW correspondence. We have however, obtained, and are attaching hereto, a summary of the fluoride vapor pressure data contained in the referenced EPA document from a document entitled, Evaluation of Emissions and Control Techniques for Reducing Fluoride Emissions from Gypsum Ponds in the Phosphoric Acid Industry. This document was prepared for EPA under Contract No. 68-02-1330, Task No. 3 in 1976.

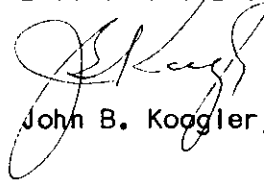
Mr. Clair Fancy
Florida Department of
Environmental Regulation

May 18, 1984
Page -two-

I trust that the enclosed information will satisfy your requirements for information related to these two references. If there are further questions regarding these references, please feel free to contact me.

Very truly yours,

SHOLTES & KOOGLER,
ENVIRONMENTAL CONSULTANTS



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

JBK:ldh
Enclosures

cc: Mr. Jim Carroll

TRW

ENVIRONMENTAL ENGINEERING DIVISION

INTEROFFICE CORRESPONDENCE

TO: File

CC:

DATE: 1423.80.JWP.008
August 27, 1980

SUBJECT: Derivation of Emission Factors for
Fluorides from Gypsum Ponds

FROM: Jack Preece
BLDG. MAIL STA.
RPNC 100

EXT.
541-9100



In the PSD reviews for phosphate fertilizer plants, it is desirable to quantify the emissions of fluorides from the process cooling water ponds. The literature yields a wide range of emission factors (0.1 to 10 pounds fluoride per acre-day). The temperature dependence is not well accounted for if one tries to use a single emission factor for all pond size operating at various production rates (heat load). The following derivation determines an emission factor for the cooling gradient portion of any pond (used process water assumed to be 113°F entering the pond and cooled pond water assumed ready for reuse at 95°F leaving the pond). The ambient temperature of 92°F is assumed to be typical for southwest Florida.

I. VAPOR PRESSURE VS POND WATER TEMPERATURE

Reference 1 reviews vapor pressure determinations published by Tatera and by King and Ferrell (Reference 2). Both of these studies measured vapor pressure of fluoride above pond water in the range of 70°F to 100°F. Phosphate fertilizer plant cooling water ponds operate at about 95 to 112°F. Thus, the data must be extrapolated.

This author selected the data of King and Ferrell to best represent vapor pressure over pond water which was in equilibrium with pond bottom sediment. The data listed on pages 54-57 of Reference 2 when averaged in three groups is summarized as:

<u>Temperature, °F</u>	<u>Fluorine Partial Pressure, (10⁻⁶ mm Hg)</u>
79.79	414.33
90.01	395.4
100.16	665.94

The data for runs made near 70°F were not included since normal pond operating temperature rarely is that low. These 70°F runs had higher vapor pressure than the others and contribute to the concave shape of the curve. The three phase equilibrium mechanism offered by the authors to account for this unusual shape is interesting and undoubtedly accounts for these ponds stabilizing in fluoride concentration after continued use. The 70°F data is not pertinent to the development of an emission factor for ponds that operate above 95°F.

The authors fit smooth curves to their data by eye. These curves appear to be parabolical as plotted on semi-log scales. Therefore, this author fit the following empirical formula to the three data points.

$$\begin{aligned} \ln VP &= a + bt + ct^2 \\ \text{or} \quad VP &= \exp(a + bt + ct^2) \end{aligned} \quad \text{Equation 1}$$

By solution of simultaneous equations the values for the coefficients are:

$$\begin{aligned} a &= 26.1131 \\ b &= -.470843 \\ c &= .00274598 \end{aligned}$$

II. EMISSION FACTOR VS VAPOR PRESSURE

Reference 2, page 104, offers the following equation for determining fluoride emissions:

$$\begin{aligned} N_f &= K_f (P^* - P) \\ \text{where} \quad K_f &= 1.96 \times 10^3 u_{16}^{.8} \frac{1b}{\text{acre-day-mm Hg}} \end{aligned}$$

u_{16} = wind velocity at 16 meter height,
meters/second.

P^* = fluoride partial pressure from their
curves (from equation derived above),
mm Hg.

P = ambient air fluoride partial pressure
 (assumed as 0, since they never
 measured above 30×10^{-6} mm Hg in
 the field).

with $u_{16} = 2.78$ meters/second (1970-1974) average
 at Tampa, Florida airport) these
 equations reduce to:

$$N_f = 3.653 \times 10^3 P^*$$

or $N_f = 3.653 \times 10^{-3} VP$ Equation 2

since $p^* = 10^{-6} \times VP$ from Equation 1.

III. POND TEMPERATURE PROFILE

Reference 3 uses the following equation to determine area required
 to cool water:

$$\frac{t_i - t_a}{t_f - t_a} = \exp \frac{A}{K}$$

where

A is pond area, acres

t_i is initial temperature of water

t_f is final temperature of water

t_a is ambient air temperature

K is a function of water rate,
 mass transfer constant and
 conversion factors.

This can be transformed to:

$$A = K \log_e \frac{t_i - t_a}{t_f - t_a} \quad \text{Equation 3}$$

which is the definite integral between the limits of t_i and t_f of:

$$dA = K \frac{dt}{t-t_a} \quad \text{Equation 4}$$

IV. EMISSION FACTOR FOR COOLING GRADIENT PORTION OF POND

The cooling gradient portion of the pond is that required to cool the process water from its initial temperature as it comes to the pond from the process (typically 113°F) to the final temperatures required for reuse in the process (typically 95°F). A worst case ambient temperature of 92°F is assumed.

The differential emissions are:

$$dE = dA \quad N_f$$

$$dE = \left(K \frac{dt}{t - t_a} \right) \left(3.653 \times 10^{-3} \right) \left(\exp (a + Bt + ct^2) \right).$$

The total emissions over the cooling gradient portion are:

$$E = K \quad 3.653 \times 10^{-3} \int_{95}^{113} \frac{\exp (a + bt + ct^2) dt}{t - 92}$$

The approximate value of the integral was determined by Simpson's Rule using 0.25°F intervals to yield:

$$E = K \quad 3.653 \times 10^{-3} \times 1713.7$$

$$= K \quad 6.260 \frac{\text{lbs Fluoride}}{\text{day}}$$

The average emissions factor for this cooling gradient portion of a pond is:

$$R_f = \frac{E}{A} = \frac{K \quad 6.260}{K \log_e \frac{113-92}{95-92}}$$

$$= 3.22 \frac{\text{lbs Fluoride}}{\text{acre-day}}$$

K cancels out of this average emission factor determination. The evaluation of K for specific heat load and production rate is discussed in Section IV below.

V. EMISSION FACTOR FOR CONSTANT TEMPERATURE PORTION OF POND

The remainder of any size pond further assumes a temperature approaching equilibrium which ambient conditions. Since it is essentially constant it is assumed to be 93.5°F. Using equations 1 and 2, an emission factor is determined for 93.5°F as:

$$N_f @ 93.5 = 1.62 \frac{\text{pounds fluoride}}{\text{acre-day}}$$

VI. EFFECT OF PRODUCTION RATE ON HEAT LOAD

The specific area required for the gradient portion of a pond will vary proportionately with the heat load which is assumed to vary proportionately to the production capacity of phosphoric acid. The specific calculations of Reference 3 were for 13.21×10^6 cubic feet per day of water needed to produce 679,600 tons per year of P_2O_5 . K of the equations in Section III for this specific use is:

$$K = \frac{62.4 \frac{\text{pounds water}}{\text{cu.ft.}} \cdot 13.21 \times 10^6 \frac{\text{cu.ft.}}{\text{day}}}{215 \frac{\text{pounds water}}{\text{ft}^2 \text{ - day}} \cdot 43560 \frac{\text{ft}^2}{\text{acre}}} = 88.02 \text{ acres.}$$

The mass transfer coefficient of 215 was determined empirically for cooling water ponds.

For the typical temperatures assumed in Section IV the required area for this specific heat load is:

$$A = 88.02 \log_e \frac{113 - 92}{95 - 92} = 171 \text{ acres.}$$

This specific condition had a 413 acre cooling pond. Therefore, the constant temperature end of this pond was:

MEMO TO FILE
August 27, 1980
Page Six

413 - 171 = 242 acres

The total fluoride emissions for this example will be:

$E = 171 \times 3.22 + 242 \times 1.62 = 943$ pounds Fluoride/day (172 tons/year).

REFERENCES

1. A. A. Linero and R. A. Baker, EPA 600/2-78-124, June 1978.
2. W. R. King and J. K. Ferrell, EPA-650/2-74-095, October 1974.
3. PSD-FL-067 Application submitted to EPA Region IV by Occidental Chemical Company, White Springs, Florida. Prepared by Sholtes and Koogler.

EVALUATION OF EMISSIONS AND
CONTROL TECHNIQUES FOR REDUCING
FLUORIDE EMISSIONS FROM GYPSUM PONDS
IN THE PHOSPHORIC ACID INDUSTRY

Prepared by

Environmental Science and Engineering, Inc.
P.O. Box 13454
Gainesville, Florida 32604

Contract No. 68-02-1330 Task No. 3

EPA Project Officer: Edward Wooldridge
Chemical Processes Section
Industrial Environmental Research Laboratory
Research Triangle Park, North Carolina 27711

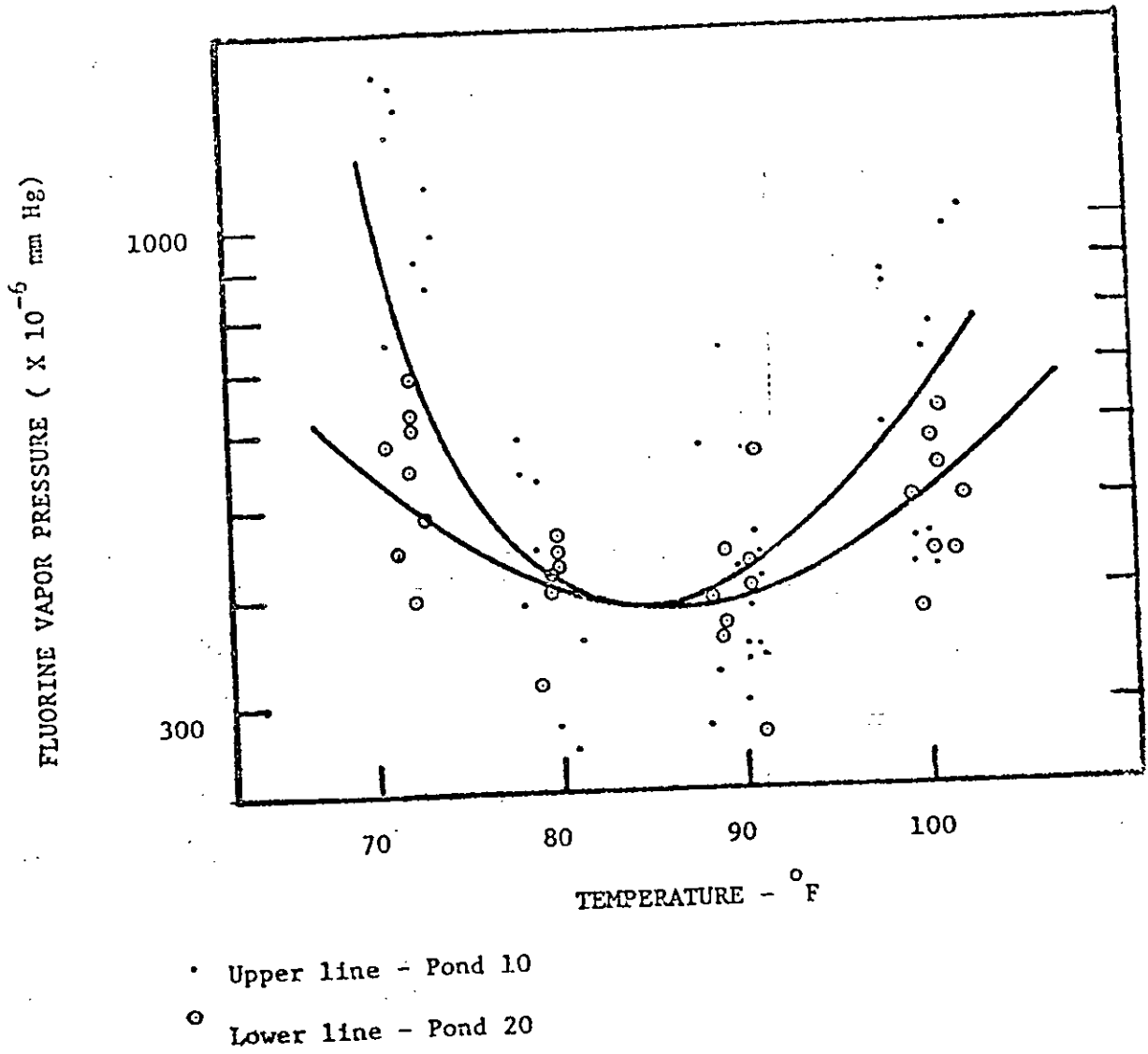


Figure 4.7. Fluorine Vapor Pressure Over Pond Water.
Source: King, 1974.

- Farner, H. W. and F. J. C. Rossotti, J. Inorg. Nuclear Chem. 26, 1959 (1964).
- Forsber, J. H., "Direct Contact Preparation", Phosphoric Acid, edited by A. V. Slack, Vol I Part II pp. 579-609.
- Fox, E. J., Stinson, J. M. and Tarbutton, G. Superphosphate, U.S. Dept. of Agriculture and Tenn. Valley Authority, 1964 Chapter 10. p. 237.
- Getsinger, J. G. "Hemihydrate by the Foam Process" Phosphoric Acid, edited by A. V. Slack, Vol I, Part I, page 369.
- Guthrie, K. M., "Capital and Operating Costs for 54 Chemical Programs", Chem Eng. June 14, 1979, 140-156.
- Harbeck, E.G., Jr., USGS Prof. Paper 272-E, U.S. Government Printing Office, Washington, D.C., 1962.
- Hein, L. B. "Removal of Impurities (from Phosphoric Acid)," Phosphoric Acid, edited by A. V. Slack, Vol I Part II, pp. 687-703.
- Huffstutler, K. K., "Pollution Problems in Phosphoric Acid Production", Phosphoric Acid, edited by A. V. Slack, Vol. I, Part II pp. 727-737.
- Inorganic Fertilizer and Phosphate Mining Industries Water Pollution and Control, EPA, 12020 FPD 09/71, Sept. 1971.
- Judge, John S., J. Electrochem. Soc., 118, 1772 (1971).
- Kern, Edward F. and T. R. Jones, Trans. Am. Electrochem. Soc., 49, 273 (1930).
- King, W.R. and Farrell, J.K., Fluoride Emissions from Phosphoric Acid Gypsum Ponds, EPA sp. EPA 650-2-74-095, October, 1974.
- Legal, C. C., Myrick, O. D., "History and Status of Phosphoric Acid" Phosphoric Acid, edited by A. V. Slack, Vol. I, Part I. pp. 14, 32, 40.
- Long, Harold, personal communication, Feb. 1975.
- Lutz, W. A. and Pratt, D. J. "Principles of Design and Operation", Phosphoric Acid, edited by A. V. Slack, Vol. I, Part I. pp. 159-212.
- Mesmer, R. E. and C. F. Baes, Jr., Inorg. Chem., 8, 6(1969).
- Munter, Paul A., Otto T. Aepli, Ruth A. Kossatz, Ind. and Eng. Chem., 39, 427 (1947).
- Munter, Paul A., Otto T. Aepli, Ruth A. Kossatz, Ind. and Eng. Chem., 41, 1504 (1949).



Agri-Chemicals

Division of United States Steel

MAIL: P. O. BOX 867
FORT MEADE, FLORIDA 33841
813/285-8121

April 12, 1984

Mr. C. H. Fancy, PE
Deputy Chief
Bureau of Air Quality Management
Florida DER
2600 Blair Stone Road
Tallahassee, Florida 32301

DER
APR 18 1984
BAQM

Dear Mr. Fancy:

Re: PSD Application

This is to acknowledge your request for additional information to increase production at the USS Agri-Chemicals' chemical plant in Fort Meade.

We have engaged Dr. J. B. Koogler to continue work on the project. He will be in contact with you shortly regarding the availability of the EPA Document 650/2-74-095.

We are proceeding to prepare information regarding the modification to the plants and the expected life of the gypsum disposal area.

Very truly yours,

USS AGRI-CHEMICALS

G. W. Beck, Manager
Administrative Services

GWB:myv

cc: J. H. Carroll
J. B. Koogler, Gainesville

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

February 21, 1984

CERTIFIED MAIL - RECEIPT REQUESTED

Dr. John B. Koogler, P.E.
Sholtes & Koogler, Environmental
Consultants, Inc.
1213 Northwest 6th Street
Gainesville, Florida 32601

Dear Mr. Koogler:

The Bureau of Air Quality Management has received your applications in behalf of USS Agri-Chemicals for permits to modify two existing sulfuric and phosphoric acid plants in Fort Meade, Florida.

Application Fee

In accordance with Florida Administrative Code Rule 17-4.05(1),(2) and (3)(a) 1 and 5., you need to submit the applications on forms (Form 17-1.202(1)) prescribed by the Department. All applications and supporting documents shall be filed in quadruplicate with the Department.

Each application shall be accompanied by a processing fee. Construction permits for a source having potential emissions of more than 100 tons per year of any single pollutant is \$1000 (each sulfuric acid plant). Construction permit for a source having potential emissions of less than 25 tons per year is \$100 (each phosphoric acid plant).

Based on this regulation, you need to send a check for \$1200 to our Tallahassee office. Our files show that we have already received \$1000 in fees for these applications.

Additional Information

What are the physical modifications to the sulfuric and phosphoric acid plants (referred to on page 2-4)?

References (1) and (2) TRW correspondence and EPA's document 650/2-74-095, page C-5, appendix C, were not included with the PSD application. Please send a copy of these references.

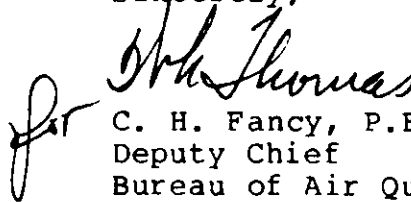
Mr. John B. Koogler, P.E.
Page Two
February 21, 1984

How many years sooner will the disposal areas have to be expanded because of the proposed increases (page 2-5)?

As soon as the requested fee and information are received at this office, we will resume processing your applications.

If you have any questions on this request please call Teresa M. Heron of this office at (904)488-1344.

Sincerely,

for C. H. Fancy, P.E.

Deputy Chief
Bureau of Air Quality Management

CHF/TH/s

cc: Dan Williams
DER SW District

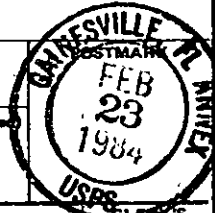
No. 0158257

RECEIPT FOR CERTIFIED MAIL

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

SENT TO <i>John B. Koogler</i>		
STREET AND NO.		
P.O., STATE AND ZIP CODE		
POSTAGE	\$	
CONSULT POSTMASTER FOR FEES OPTIONAL SERVICES RETURN RECEIPT SERVICE	CERTIFIED FEE	\$
	SPECIAL DELIVERY	\$
	RESTRICTED DELIVERY	\$
	SHOW TO WHOM AND DATE DELIVERED	\$
	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	\$
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	\$	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	\$	
TOTAL POSTAGE AND FEES	\$	
POSTMARK OR DATE <i>2/22/84</i>		

DTH 3800, Apr. 1976

PS Form 3811, Jan. 1979 RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL	SENDER: Complete items 1, 2, and 3. Add your address in the "RETURN TO" space on reverse.								
	1. The following service is requested (check one.) <input checked="" type="checkbox"/> Show to whom and date delivered. \$ <input type="checkbox"/> Show to whom, date and address of delivery. \$ <input type="checkbox"/> RESTRICTED DELIVERY Show to whom and date delivered. \$ <input type="checkbox"/> RESTRICTED DELIVERY. Show to whom, date, and address of delivery. \$								
	(CONSULT POSTMASTER FOR FEES)								
	2. ARTICLE ADDRESSED TO: <i>Dr. John B. Koogler</i> <i>1213 N.W. 6th St.</i> <i>Gainesville, FL 32601</i>								
	3. ARTICLE DESCRIPTION: <table border="1" style="width: 100%;"> <tr> <td>REGISTERED NO.</td> <td>CERTIFIED NO.</td> <td>INSURED NO.</td> </tr> <tr> <td></td> <td>0158257</td> <td></td> </tr> </table>			REGISTERED NO.	CERTIFIED NO.	INSURED NO.		0158257	
	REGISTERED NO.	CERTIFIED NO.	INSURED NO.						
	0158257								
(Always obtain signature of addressee or agent)									
I have received the article described above. SIGNATURE <input checked="" type="checkbox"/> Addressee <input type="checkbox"/> Authorized agent <i>[Signature]</i>									
4. DATE OF DELIVERY <div style="text-align: right;">  </div>									
5. ADDRESS (Complete only if requested)									
6. UNABLE TO DELIVER BECAUSE:		CLERK'S INITIALS							