June 28, 1982

Mr. J. C. Lahman, Plant Manager Agrico Chemical Company P.O. Box 1969 Bartow, Florida 33830

Dear Mr. Lahman:

The request for extension of the expiration date of the state construction permits submitted by Mr. Lawrence N. Curtin of Holland & Knight on behalf of Agrico Chemical Company has been reviewed and the following findings noted.

1. State applications for permits to construct were reviewed and construction permits issued based on the air pollution control regulations in effect on January 30, 1981. Time required to construct the sources was listed in the applications. The state permits issued allowed sufficient time for construction or modification, start of operations, and compliance testing. This data is summarized in the following table.

Permit No.	<u> Source</u>	Construction Time	Issue <u>Date</u>	Expiration Date
AC53-34868	Phos. Acid Plant	15 months	1/30/81	6/30/82
AC53-34871	Sulfuric Acid Plant	24 months	1/30/81	3/30/83
AC53-34861	DAP Plant	22 months	1/30/81	1/30/83
AC53-34865	DAP Storage/ Shipping	22 months	1/30/81	1/30/83

- 2. A state permit to construct a purified MAP/DAP facility at the same phosphate fertilizer complex was issued by the Department's Southwest District Office (AC53-42155, issued July 17, 1981, expires December 15, 1982).
- Construction of the purified MAP/DAP facility is proceeding in accordance with state permit, AC53-42155.
- 4. Construction/modification of the sources listed in l above has been delayed at the Company's option, because of the economic conditions associated with a decline in sales of fertilizer products.
- 5. Agrico Chemical Company, through its agent at Holland & Knight, is requesting that the expiration date of the construction permits for the four sources listed in 1 be extended to December 31, 1985.

Based on the proceeding facts, the Department has reached the following conclusion.

- 1. Agrico Chemical Company plans to handle the construction/ modification allowed by the 5 state permits mentioned earlier in phases with the purified MAP/DAP facility being constructed first and the other sources built at a later date. All sources will be completed and tested by December 31, 1985.
- 2. This phased construction makes the source subject to Section 17-2.630(3), FAC, Phased Construction Project.

 This rule requires the owner or operator of the facility to demonstrate the adequacy of any previous determination of BACT before beginning construction.
- 3. All modifications to permit conditions are subject to Section 17-4.08, FAC. This rule allows the Department to require the permittee to comply with new or additional conditions, for good cause.

Pursuant to Section 17-2.630(3), FAC, and Section 17-4.08, FAC, the Department will extend the expiration dates of the state construction permits as requested and require the agent for the source to demonstrate the adequacy of all SACE determinations for

Mr. J. C. Lahman June 28, 1982 Page Three

there permits before beginning construction. The Department reserved the right to add new or additional conditions, with good cause, if needed to protect the ambient air quality from the impact of the new/modified sources.

A copy of this letter must be attached to each affected construction permit and it becomes a part of that permit. The affected permit numbers are listed below.

Permit No.	Original Expiration Date	Modified Expiration Date
AC53-34868	6/30/82	12/31/85
AC53-34871	3/30/83	12/31/85
AC53-34861	1/30/83	12/31/85
AC53-34865	1/30/83	12/31/85

Sincerely,

/s/Victoria J. Tschinkel Victoria J. Tschinkel

Secretary

VT:CF:ras

cc: Southwest District Solland & Knight

Gell Dan Williams

LAW OFFICES

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PLEASE REPLY TO:

Lakeland, Florida (202) 484-9090 June 2, 1982

600 MARYLAND AVENUE, S.W. WASHINGTON, D.C. 20024

TWX 710-822-9775

CABLE ADDRESS HND KNIGHT TELEX 5-2630

Dept. of Environmental Regulation

Martha Hall, Esquire Florida Department of Environmental Regulation Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32301

Office of General Counsel Re: Agrico Chemical Company - Construction Permits

Dear Marty:

As we recently discussed, Agrio Chemical Company has received construction permits from the Department of Environmental Regulation (DER) for a planned modification of its South Pierce Chemical Works in Bartow, Florida. total project for which construction permits were issued includes construction of a new diammonium phosphate plant, a new purified MAP and DAP plant, a new sulfuric acid plant and a new DAP storage and shipping facility. In addition, the existing phosphoric acid plant is planned to be modified to increase production capacity.

Due to economic conditions that have caused an industry-wide decline in sales of fertilizer products, it will not be possible for Agrico to move forward with the total project at this time. The Company, however, plans to complete the project at such time as the conditions are more favorable. Although projections of economic recovery vary, it is expected that conditions will improve within the foreseeable future.

Based upon the Company's revised construction schedule, we hereby request an extension of the expiration date of the DER construction permits for the phosphoric acid, sulfuric acid, and DAP and product load out phases of the project. Construction on the purified MAP/DAP facility will proceed in accordance with the DER permit. The DER identification numbers of the permits for which we are requesting extensions are as follows:

Martha Hall, Esq. June 2, 1982 Page 2

Permit No.	Source	-	ent tion e			
AC 53-34868	Phosphoric acid plant	June 30,	1982	Dec.	31,	1985
AC 53-34871	Sulfuric acid plant	Mar. 30,	1983	Dec.	31,	1985
AC 53-34861	DAP plant	Jan. 30,	1983	Dec.	31,	1985
AC 53-34865	DAP storage and shipping facility	Jan. 30,	1983	Dec.	31,	1985

Should you have any questions concerning the foregoing or require additional information, please do not hesitate to contact us at your convenience. We look forward to hearing from you regarding the request for extension in the near future.

Sincerely,

HOLLAND, & KNIGHT

Lawrence N. Curtin

LNC/er 5674-2431060282:24 cc: Mr. Ed Mayer

Copy to Dan Williams on 6-9-82

Subpart V—Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants 14

§ 60.220 Applicability and designation of affected facility.64

(4) The affected facility to which the provisions of this subpart apply is each granular diammonium phosphate plant. For the purpose of this subpart, the effected facility includes any combination of: reactors, granulators, dryers, coolers, screens, and mills.

(b) Any facility under paragraph (a) of this section that commences construction or modification after October 22, 1974, is subject to the requirements of

this subpart.

6 60.221 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) "Granular diammonium phosphate plant" means any plant manufacturing granular diammonium phosphate by reacting phosphoric acid with ammonia.

(b) "Total fluorides" means elemental fluorine and all fluoride compounds as measured by reference methods specified in § 60.224, or equivalent or alternative methods.

(c) "Equivalent PrO: feed" means the quantity of phosphorus, expressed as phosphorous pentoxide, fed to the proc-

\$ 60.222 Standard for fluorides.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain total fluorides in excess of 30 g/metric ton of equivalent P.O. feed (0.060 lb/ton).

\$ 60.228 Midnitoring of operations.

(a) The owner or operator of any granular diammonium phosphate plant subject to the provisions of this subpart shall install, calibrate, maintain, and operate a flow monitoring device which can be used to determine the mass flow of phosphorus-bearing feed material to the process. The flow monitoring device shall have an accuracy of ±5 percent over its operating range.

(b) The owner or operator of any granular diammonium phosphate plant shall maintain a daily record of equivalent P.O. feed by first determining the total mass rate in metric ton/hr of phosphorus-bearing feed using a flow monitoring device meeting the requirements of paragraph (a) of this section and then by proceeding according to § 50.224(d) (3).

(6) The owner or operator of any granular diammonium phosphate plant

subject to the provisions of this part shall install, calibrate, maintain, and operate a monitoring device which continuously measures and permanently records the total pressure drop across the scrubbing system. The monitoring device shall have an accuracy of ±5 percent over its operating range.

(Sec. 114, Clean Air Act is amended (42 U.S.C. 7414)), 68, 83

\$ 60.224 Test methods and procedures.

(a) Reference methods in Appendix A
 of this part, except as provided for in
 60.8(b), shall be used to determine compliance with the standard prescribed in
 50.222 as follows;

. (1) Method 13A or 13B for the concentration of total fluorides and the as-

sociated moisture content,

(2) Method 1 for sample and velocity traverses,

(3) Method 2 for velocity and volumetric flow rate, and

(4) Method 3 for gas analysis.

(b) For Method 13A or 13B, the sampling time for each run shall be at least 60 minutes and the minimum sample volume shall be at least 0.85 dacm (30 dacf) except that shorter sampling times or smaller volumes when necestitated by process variables or other factors, may be approved by the Administrator.

(c) The air pollution control system for the affected facility shall be constructed so that volumetric flow rates and total fluoride emissions can be accurately determined by applicable test

methods and procedures.

(d) Equivalent P.O. feed shall be de-

termined as follows:

(1) Determine the total mass rate in metric ton/hr of phosphorus-bearing foed during each run using a flow monitoring device meeting the requirements of \$60.223(a).

(2) Calculate the equivalent P.G. feed by multiplying the percentage P.G. content, as measured by the apectrophotometric melybdovanadophosphate method (AOAC Method 8), times the total mass rate of phosphorus-bearing feed. AOAC Method 9 is published in the Official Methods of Analysis of the Association of Official Analytical Chemists, 11th edition, 1970, pp. 11—12. Other methods may be approved by the Administrator.

be approved by the Administrator.

(e) For each run, emissions expressed in g/metric ton of equivalent P.O. foed shall be determined using the following equation:

B= (C,Q,) 10-4

Where

ALEXANDER PROPERTY.

For Emissions of total fluorides in g/
metric ton of equivalent P.C.

C. = Consentration of total fluorides in
mg/decm as determined by
Method 18A or 18B.
Q. = Yolumetric flow rate of the effluent
gas stream in decm/hr as determined by Method 8.

16 = Conversion factor for mg to g.

 $M_{P_2 e_3} = Equivalent P_1O_1$ feed in metric tou/hr as determined by § 60.- 234(d).

(Sec. 114, Clean Air Act is amended (42 U.S.C. 7414)), 68.83

36 FR 24876, 12/23/71 (1)

as amended

40 FR 33162, 8/6/75 (14) 42 FR 37936, 7/25/77 (64) 42 FR 41424, 8/17/77 (68) 43 FR 8800, 3/3/78 (83)

Subpart H-Standards of Performance for Sulfuric Acid Plants

§ 60.80 Applicability and designation of affected facility. 64

- (a) The provisions of this subpart are applicable to each sulfuric acid production unit, which is the affected facility.
- (b) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.

§ 60.81 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in Subpart A of this part.

- (a) "Sulfuric acid production unit" means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides and mercaptans, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.
- (b) "Acid mist" means sulfuric acid mist, as measured by Method 8 of Appendix A to this part or an equivalent or alternative method. 8

\$ 60.82 Standard for sulfur dioxide.

(a) On and after the date on which the performance test required to be conducted by \$ 60.8 is completed, no owner or operator subject to the provisions of. this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of 2 kg per metric ton of said produced (4 lb per ton), the production being expressed as 100 percent H.BO.

\$ 60.83 Standard for said mist. 3, 8

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which;

(1) Contain acid mist, expressed as H.SO., in excess of 0.075 kg per metric ton of said produced (0.15 lb per ton) the production being expressed as 100 percent H.SO.

(2) Exhibit 10 percent specity, or groater, 18

§ 60.84 Emission monitoring. 18

(a) A continuous monitoring system for the measurement of sulfur dioxide shall be installed, calibrated, maintained, and operated by the owner or operator. The pollutant gas used to prepare callbration gas mixtures under paragraph 2.1. Performance Specification 2 and for

this part, shall be sulfur dioxide (SO,). Reference Method 8 shall be used for conducting monitoring system performance evaluations under 4 60.13(c) except that only the sulfur dioxide portion of the Method 8 results shall be used. The soan shall be set at 1000 ppm of sulfur dioxide.

(b) The owner or operator shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, 1b/short ton). The conversion factor shall be determined, as a minimum, three times daily by measuring the concentration of sulfur dioxide entering the converter using suitable methods (e.g., the Reich test, National Air Pollution Control Administration Publication No." 999-AP-13 and calculating the appropriate conversion factor for each eighthour period as follows:

$$CF = k \left[\frac{1.000 - 0.015r}{r - s} \right]$$

Where:

CP =conversion factor (kg/metric ton per ppm, lb/short ton per ppm).

k monstant derived from material balance. For determining CF in metric units, k=0.0653. For determining CF in English units, k=0.1306.

r = percentage of sulfur dioxide by voltime entering the gas converter. Anpropriete corrections must be made for air injection plants subject to the Administrator's approval.

s = percentage of sulfur dioxide by volume in the emissions to the atmosphere determined by the continuous monitoring system required under paragraph (a) of this section.

(c) The owner or operator shall record all conversion factors and values under paragraph (b) of this section from which they were computed (i.e., CF, r, and a).

(d) {Reserved}

(e) For the purpose of reports under \$ 60.7(c), periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standards under \$ 60.82, 4,18

(Sec. 114, Clean Air Act is amended (42 U.S.C. 7414)), 68, 83

6 60.85 Tost methods and procedures.

- (a) The reference methods in Appendix A to this part, except as provided for in \$60.8(b), shall be used to determine compliance with the standards prescribed in 14 60.82 and 60.83 as follows:
- (1) Method 8 for the concentrations of 80, and acid mist;
- (2) Method 1 for sample and velocity traverses:
- (3) Method 2 for velocity and volumetric flow rate; and
 - (4) Method 3 for gas analysis.
- (b) The moisture content can be considered to be zero. For Method 8 the sam-

calibration checks under \$60.13(d) to pling time for each run shall be at least 80 minutes and the minimum sample volume shall be 1.15 dscm (40.6 dscf) except that smaller sampling times or sample volumes, when necessitated by process variables or other factors, may be approved by the Administrator.

(c) Acid production rate, expressed in metric tons per hour of 100 percent H.SO, shall be determined during each testing period by suitable methods and shall be confirmed by a material balance over the production system.

(d) Acid mist and sulfur dioxide emissions, expressed in g/metric ton of 100 percent H.SO., shall be determined by dividing the emission rate in g/hr by the scid production rate. The emission rate shall be determined by the equation, s/hr=Q.xc, where Q.=volumetric flow rate of the effuent in dscm/hr as determined in accordance with paragraph (a) (3) of this section, and c-acid mist and SO, concentrations in g/dscm as determined in accordance with paragraph (a) (1) of this section.

(Sec. 114. Clean Air Act is amended (42 U.S.C. 7414)), 68.83

36 FR 24875, 12/23/71 (1)

as amended

38 FR 13562, 5/23/73 (3) 38 FR 28564, 10/15/73 (4) 39 FR 20790, 6/14/74 (8) 40 FR 46250, 10/6/75 (18) 42 FR 37936, 7/25/77 (64) 42 FR 41424, 8/17/77 (68)

43 FR 8800, 3/3/78 (83)

Subpart T—Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants 14

f) 60.200 Applicability and designation of affected facility. 64

- (a) The affected facility to which the provisions of this subpart apply is each wet-process phosphoric acid plant. For the purpose of this subpart, the affected facility includes any combination of: reactors, filters, evaporators, and hot-weils.
- (b) Any facility under paragraph (a) of this section that commences construction or modification after October 22, 1974, is subject to the requirements of this subpart.

§ 60.201 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in Subpart A of this part.

(a) "Wet-process phosphoric acid plant" means any facility manufacturing phosphoric acid by reacting phosphate rock and acid.

(b) "Total fluorides" means elemental fluorine and all fluoride compounds as measured by reference methods specified in § 80.204, or equivalent or alternative methods.

(c) "Equivalent P.O. feed" means the quantity of phosphorus, expressed as phosphorous pentoxide, fed to the process.

§ 60.202 Standard for fluorides.

(a) On and after the date on which the performance test required to be conducted by § 80.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain total fluorides in excess of 10.0 g/metric ton of equivalent P:O₁ feed (0.020 lb/ton).

§ 60.203 Monitoring of operations.

(a) The owner or operator of any wetprocess phosphoric acid plant subject to the provisions of this subpart shall install, calibrate, maintain, and operate a monitoring device which can be used to determine the mass flow of phosphorusbearing feed material to the process. The monitoring device shall have an accuracy of ± 5 percent over its operating range.

(b) The owner or operator of any wetprocess phosphoric acid plant shall maintain a daily record of equivalent P.O. feed by first determining the total mass rate in metric ton/hr of phosphorus bearing feed using a monitoring device for measuring mass flowrate which meets the requirements of paragraph (a) of this section and then by proceeding according to § 60.204(d) (2).

(c) The owner or operator of any wetprocess phosphoric acid subject to the provisions of this part shall install, calibrate, maintain, and operate a monitoring device which continuously measures and permanently records the total pressure drop across the process scrubbing system. The monitoring device shall have an accuracy of ± 5 percent over its operating range.

(Sec. 114, Clean Air Act is amended (42 U.S.C. 7414)), 68,83

§ 60.204 Test methods and procedures.

(a) Reference methods in Appendix A of this part, except as provided in § 60.8
(b), shall be used to determine compliance with the standard prescribed in § 60.202 as follows:

(1) Method 13A or 13B for the concentration of total fluorides and the associated moisture content.

(2) Method 1 for sample and velocity traverses.

(3) Method 2 for velocity and volumetric flow rate, and

(4) Method 3 for gas analysis.

(b) For Method 13A or 13B, the sampling time for each run shall be at least 60 minutes and the minimum sample volume shall be 0.85 dscm (30 dscf) except that shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator.

(c) The air pollution control system for the affected facility shall be constructed so that volumetric flow rates and total fluoride emissions can be accurately determined by applicable test methods and procedures.

(d) Equivalent P_iO_s feed shall be determined as follows:

(1) Determine the total mass rate in metric ton/hr of phosphorus-bearing feed during each run using a flow monitoring device meeting the requirements of § 60.203(a).

(2) Calculate the equivalent P:O, feed by multiplying the percentage P:O₄ content, as measured by the spectrophotometric molybdovanadophosphate method (AOAC Method 9), times the total mass rate of phosphorus-bearing feed. AOAC Method 9 is published in the Official Methods of Analysis of the Association of Official Analytical Chemists, 11th edition, 1970, pp. 11-12. Other methods may be approved by the Administrator.

(e) For each run, emissions expressed in g/metric ton of equivalent P_iO_i feed shall be determined using the following equation:

$$E = \frac{(C_{\bullet}Q_{\bullet}) \cdot 10^{-4}}{M_{P_{\bullet}Q_{\bullet}}}$$

where:

E=Emissions of total fluorides in g/ metric ton of equivalent P₁O₁ feed.

C.=Concentration of total fluorides in mg/dscm as determined by Method 13A or 13B.

Q = Volumetric flow rate of the efficient gas stream in dscm/hr as determined by Method 2.

10- = Conversion factor for mg to g.

 $M_{P_1\theta_1}$ = Equivalent P_1O_1 feed in metric ton/hr as determined by § 60.-204(d).

(Sec. 114, Clean Air Act is amended (42 U.S.C. 7414)), 68.83





36 FR 24876, 12/23/71 (1)

as amended

40 FR 33152, 8/6/75 (14) 42 FR 37936, 7/25/77 (64) 42 FR 41424, 8/17/77 (68) 43 FR 8800, 3/3/78 (83)



!	Stationary Sources	Particulates	Objectionable odor	Visible emissions	Fluorides (water saluable or gaseous-atomic weight 18) expressed as pounds of fluoride per ton of phosphatic materials input to the system expressed as tons of P2O5
C P	HOSPHATE PROCESS (cong.)				
1	Id) Granular triple superphosphate (GTSP) production and auxiliary equipment				{
1	GTSP made by granulating run-of pile TSP		}		0 06 pounds
2. GSTP made from phosphoric acid and phosphate rock shurry					0 15 pounds
:	(le) GTSP storage and auxiliary equipment]	<u> </u>		0.05 pounds
1	(f) Diammonium phosphete production and auxiliary equipment	{	∤ i		0.95 pounds
	(g) Calcining or other thermal phosphate rock processing and auxiliery equipment excepting phosphate rock drying and defluorinating	·			0.05 pounds
	thi Defisioninating phosphate rock by thermal processing and auxiliary equipment				0 37 pounds
	 (ii) Att plants, plant sections or user operations and auxiliary equipment not listed in 17 2 05(6) Table It items C.(1) (a) (b) dugh (h); 	Must comply with best technology	pursuant to 17 2.03	1(1)	
(;	2) Existing plants or plant sections. Emissions shall comply with 17-2 05(6) Table 12 Item C.(1), Extective July 3, 1975 or				
t	Existing plant complexes with an operating wat process phosphoric acid watero (including any items 17.2.05(6) Table II items C.(1)(a) shrough (f) and other plant sections processing or handling phosphoric acid or products or phosphoric acid processing.				Total amission of the entire complex shall not exceed 0.4 pounds per son of P2Os input to the west process phosphoric acid section.
1	4) Individual plant sections included in 17-2.05(6) Table II (terns C 11) (a) through (1) but not included as a part as defined in C. (3)	suitable for the application of exist	ing technology, who	and report to the Department that it ich may include major rebuilding or re obtained by any amilar plant section	pairs and scrubber installations, the

