

# GARDINIER INC.

Post Office Box 3269    Tampa, Florida 33601    Telephone 813-677-9111    TWX 810-876-0648    Telex-52666    Cable - Gardinphos

January 16, 1989

Mr. Clair Fancy  
Florida Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 323-99-2400

RECEIVED

JAN 20 1989

DER-Environ

Subject: Proof of Publication  
Intent to Issue Construction Permit  
For The Construction Of A Clarifier/Storage Tank

Dear Sir:

You will find attached Proof of Publication of Intent to Issue Permit by the Department of Environmental Regulation.

If there are any questions, please contact me.

Sincerely,

E. O. Morris  
Environmental Manager

:gf

cc: Bill Thomas/DER/Tpa  
J. Campbell/HCEPC  
R. Cabina  
File P-45A

THE TAMPA TRIBUNE

Published Daily  
Tampa, Hillsborough County, Florida

State of Florida }  
County of Hillsborough } ss.

Before the undersigned authority personally appeared  
G. T. Gleason, who on oath says that he is Controller of The Tampa Tribune, a daily  
newspaper published at Tampa in Hillsborough County, Florida; that the attached copy  
of advertisement being a

LEGAL NOTICE

in the matter of NOTICE OF INTENT

was published in said newspaper in the issues of  
January 12, 1989

Affiant further says that the said The Tampa Tribune is a newspaper published at  
Tampa, in said Hillsborough County, Florida, and that the said newspaper has  
heretofore been continuously published in said Hillsborough County, Florida, each day  
and has been entered as second class mail matter at the post office in Tampa, in said  
Hillsborough County, Florida, for a period of one year next preceding the first publica-  
tion of the attached copy of advertisement; and affiant further says that he has neither  
paid nor promised any person, firm, or corporation any discount, rebate, commission or  
refund for the purpose of securing this advertisement for publication in the said  
newspaper.

*G. T. Gleason*

Sworn to and subscribed before me, this 12th day  
of January, A.D. 1989.

*Debra Lynne Benford*  
Notary Public, State of Florida

My Commission Expires Jan. 6, 1993  
Bonded Thru Troy Cain - Insurance Inc.

(SEAL)

State of Florida  
Department of  
Environmental Regulation  
Notice of Intent  
The Department of Environ-  
mental Regulation hereby  
gives notice of its intent to  
issue a permit to Gardiner,  
Inc., for the construction of a  
clarifier/storage tank at their  
facility near Tampa, Hillsbor-  
ough County, Florida. The De-  
partment is issuing this intent  
to issue for the reasons stated  
in the Technical Evaluation  
and Preliminary Determina-  
tion.  
Persons whose substantial  
interests are affected by the  
Department's proposed per-  
mitting decision may petition  
for an administrative determina-  
tion (hearing) in accordance  
with Section 120.57, Florida  
Statutes. The petition must  
conform to the requirements  
of Chapters 17-103 and 28-5,  
Florida Administrative Code,  
and must be filed (received) in  
the Department's Office of  
General Counsel, 2600 Blair  
Stone Road, Twin Towers Of-  
fice Building, Tallahassee, Flor-  
ida 32399-2400, within  
fourteen (14) days of publica-  
tion of this notice. Failure to  
file a petition within this time  
period constitutes a waiver of  
any right such person has to  
request an administrative de-  
termination (hearing) under  
Section 120.57, Florida Stat-  
utes.  
The petition must be filed  
with the Department of En-  
vironmental Regulation, At-  
tention: General Counsel,  
2600 Blair Stone Road, Twin  
Towers Office Building, Tallahassee,  
Florida 32399-2400.  
The Department of Environ-  
mental Regulation will hold a  
public hearing on the petition  
on January 19, 1989, at 2:20  
p.m. in the Conference Room,  
Department of Environmental  
Regulation, 2600 Blair Stone  
Road, Tallahassee, Florida.  
The hearing will be held in  
accordance with the provisions  
of Section 120.57, Florida  
Statutes.  
If you have any questions  
regarding this notice, please  
contact the Department of  
Environmental Regulation,  
Attn: General Counsel,  
2600 Blair Stone Road,  
Tallahassee, Florida 32399-  
2400, telephone (904) 497-  
2600.

State of Florida  
Department of  
Environmental Regulation  
Notice of Intent

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to Gardinier, Inc., for the construction of a clarifier/storage tank at their facility near Tampa, Hillsborough County, Florida. The Department is issuing this intent to issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

Persons whose substantial interests are affected by the

Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

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

Dept. of  
Environmental Regulation  
Bureau of Air  
Quality Management  
2600 Blair Stone Road  
Tallahassee,  
Florida 32399-2400

Dept. of  
Environmental Regulation  
Southwest District  
4520 Oak Fair Boulevard  
Tampa, Florida 33610-7347  
Environmental Protection  
Commission of  
Hillsborough County  
1410 North 21st Street  
Tampa, Florida 33605

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.



State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

# Interoffice Memorandum

TO: Dale Twachtmann

*JN* FROM: Steve Smallwood *ext Twachtmann*

SUBJ: Approval of Construction Permit No. AC 29-156206  
Gardinier, Inc.

DATE: January 31, 1989

Attached for your approval and signature is a permit prepared by Central Air Permitting for the above mentioned company to construct a phosphoric acid clarifier and storage tank.

No comments were received during the public notice period.

Day 90, after which this permit will be issued by default, is February 16, 1989.

I recommend your approval and signature.

SS/JR/s

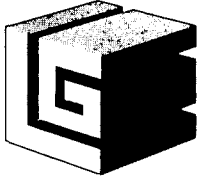
attachments

**RECEIVED**  
FEB 2 1989

Office of the Secretary

PM  
4-7-89  
Tampa, FL

*file copy*



# GARDINIER INC.

Post Office Box 3269    Tampa, Florida 33601    Telephone 813-677-9111    TWX 810-876-0648    Telex-52666    Cable-Gardinphos

April 7, 1989

RECEIVED

APR 10 1989

DER-BAQM

Mr. Clair H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality Management  
Florida Department of  
Environmental Regulation  
2600 Blair Stone Rd.  
Tallahassee, Florida 32399-2400

Subject: Modification of Construction Permit AC29-156206

Dear Mr. Fancy:

Based on the following information, Gardinier is requesting a modification of the above-referenced construction permit.

As per discussions between the Department and Gardinier during review of the application for the above-referenced permit, Gardinier has continued the evaluation of the most effective means of controlling emissions from the existing phosphoric acid clarifier and 300,000 gallon phosphoric acid storage tank. Gardinier has determined that installing controls on these existing sources is a more appropriate course of action than constructing an entirely new clarifier/storage tank, at this time. Accordingly, we request that the construction permit be modified to reflect that the existing tanks will be covered and ducted to wet scrubbers.

The requested modification will require that the Project Description on page 1 of the permit and Specific Condition No. 2 on page 5 of the permit be modified. Suggested language for the modified permit is provided below:

Mr. Clair H. Fancy  
April 7, 1989  
Page Two

Project Description -

For the construction of covers over an existing phosphoric acid storage tank and an existing phosphoric acid clarifier located at the permittee's phosphate fertilizer complex near the intersection on U.S. Highway 41 and Riverview Drive in Hillsborough County, Florida. The latitude, and longitude and UTM coordinates are 27x51'30"N by 82x23'57"W and 362.6 km E and 3082.5 km N, respectively.

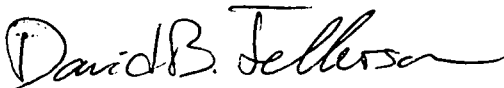
Specific Condition No. 2 -

Within 30 days of completion of construction, performance tests shall be conducted to demonstrate that these sources, in combination with the existing phosphoric acid production units, comply with the New Source Performance Standards for Wet Process Phosphoric Acid Plants (Subpart T, 40 CFR 60.200).

Attached for your review is a revised "Attachment A" (project description) to the original permit application. Also attached are drawings and engineering calculations supporting the emission estimates for the proposed system.

Should you have any questions concerning this matter or require any additional information, please feel free to contact me.

Sincerely,



David B. Jellerson, P.E.  
Environmental Supervisor

:gf  
cc: J. Campbell, HCEPC  
W. Thomas/FDER/Tpa  
E. O. Morris  
P-17A

*copied: J. Reynolds  
CHF/BT*

## APPENDIX A

This project involves enclosing the existing 300,000 gallon phosphoric acid storage tank and clarifier at Gardinier. Each will be enclosed and fumes will be vented through a new scrubber system for each tank.

Source of gaseous fluorides associated with the existing clarifier consist of the clarifier vent, wash box, and pump tank. Sources associated with the existing 300 K tank include the tank and wash box. Fluorides emissions from these two sources uncontrolled are estimated at 3.5 lb./hr. The new scrubber systems will significantly reduce the actual fluoride emission to atmosphere. Assuming 95% fluoride removal efficiency, fluoride emissions for the proposed clarifier scrubber system will be 0.0133 lb./hr., 0.3180 lb./day or 0.0580 tons/yr. With the same removal efficiency on the 300 K tank the fluoride emissions will be 0.0010 lb./hr., 0.0230 lb./day or 0.0042 tons/yr. The two systems together will emit 0.0143 lb./hr., 0.3410 lb./day or 0.0622 tons/yr.

The estimated gas flow from the clarifier, pump tank and washbox is at 11,000 acfm, and for the 300K tank and wash box 800 acfm. Each system will have its own packed tower scrubber with the scrubbing liquid being pond water.

MATTHEW P. MEYER  
MARCH 23, 1989

Determine the fluoride loading to a scrubber system from an enclosed 300,000 gallon tank.

① Determine acfm to effectively evacuate tank.

- approximately 15.36 ft of 1/8" cracks @ 5000 ft/min

$$.16 \text{ ft}^2 \times 5000 \approx 800 \text{ ft}^3/\text{min}$$

- average volume displacement

$$70 \text{ gpm} \approx 500 \text{ ft}^3/\text{min}$$

- safety factor of  $\frac{800}{500} = 1.6$

② Determine the flow of dry air to scrubber

$$800 \text{ ft}^3/\text{min} \times 60 \text{ min/hr} \times \left( S \frac{16}{\text{ft}^3} \right) @ \frac{27.99}{100} \text{ mths}$$

$$S \left( \frac{27.99}{100} \right) = 0.07093 \frac{16}{\text{ft}^3}$$

$$T_1 = T_2 \quad V_1 = V_2$$

$$S \left( \frac{27.99}{100} \right) = ?$$

$$PV = nRT \quad S = \frac{n}{V}$$

$$S = \left( \frac{n_2}{V_2} \right) = \left( \frac{n_1}{V_1} \right) \frac{P_2}{P_1}$$

$$= \frac{(0.07093) 27.99}{29.92}$$

$$= 0.06635 \frac{16}{\text{ft}^3}$$

$$800 \text{ ft}^3/\text{min} \times 60 \text{ min/hr} \times 0.06635 \frac{16}{\text{ft}^3} = 3184 \frac{16}{\text{hr}} \text{ dry air}$$

$$\left( 28.96 \frac{16}{\text{mole}} \text{ dry air} \right) = 110 \frac{\text{mole}}{\text{hr}} \text{ dry air}$$

David P. Jellison  
FL PE 0038676  
3/29/89  
REGISTERED ENGINEER  
FLORIDA



③ Determine total moles of air/water mixture to scrubber.

Assume air and water mixture from tank to scrubber  
is  $140^{\circ}\text{F}$ .

Assume vapor pressure of water is 4.33 in Hg abs over  
30% phosphoric acid.

$$\frac{P_{\text{TOTAL}} - P_{\text{H}_2\text{O}}}{P_{\text{TOTAL}}} = \frac{29.92 - 4.33}{29.92} = \frac{110}{X} = \frac{\text{mole air}}{\text{mole total}}$$

$$X = 128.6 \text{ moles of air/water mixture/hr}$$

④ Determine moles of water to scrubber

$$\frac{4.33}{29.92} \cdot 128.6 = 18.61 \text{ moles of water/hr}$$

$$= 33.5 \text{ lb/hr}$$

⑤ Determine volume of air/water mixture to scrubber

$$\frac{335 \text{ lb/hr H}_2\text{O}}{3184 \text{ lb/hr dry air}} = 0.1052$$

from psychometric chart

$$V_s = 17.5 \text{ ft}^3/\text{lb dry air}$$

$$17.5 \text{ ft}^3/\text{lb} \times 3184 \text{ lb/hr} \times \frac{1 \text{ hr}}{60 \text{ min}} = 929 \text{ acfm}$$

⑥ Determine moles of F<sub>2</sub> to scrubber.

Assume 2.5% F<sub>2</sub> concentration

with vapor pressure = 0.006 mm Hg =  $2.36 \times 10^{-4}$  in Hg

$$\frac{2.36 \times 10^{-4}}{29.92} \cdot 128.6 = 1.014 \times 10^{-3} \text{ moles F}_2/\text{hr}$$

$$= 0.0193 \text{ lb F}_2/\text{hr}$$

$$= 0.463 \text{ lb F}_2/\text{day}$$

Assume 95% removal of F<sub>2</sub> = 0.023 lb/day F<sub>2</sub>

Determine the Fluoride loading to a scrubber system from the existing clarifier enclosed.

① Determine acfm to effectively evacuate.

- approximately 190 ft of  $\frac{1}{8}$ " cracks @ 5000 ft/min

$$1.98 \text{ ft}^2 \times 5000 \text{ ft/min} \approx 9900 \text{ ft}^3/\text{min}$$

- use 11,000 acfm

- volume = constant

- safety factor  $\frac{11,000}{9900} = 1.11$

② Determine the flow of dry air to scrubber

$$11,000 \times 60 \times 0.06635 = 43791 \text{ lb/hr dry air}$$

$$= 1.512 \text{ moles/hr dry air}$$

③ Determine total moles of air/water mixture to scrubber.

$$Z = 1768 \text{ moles/hr}$$

④ Determine moles of water to scrubber.

$$\frac{4.33}{29.92} \cdot 1768 = 256 \text{ moles/hr}$$

$$= 4608 \text{ lb/hr}$$

⑤ Determine volume of air/water mixture to scrubber.

$$17.5 \times 43791 \times \frac{1}{60} = 12,772 \text{ acfm}$$

⑥ Determine moles of F to scrubber.

$$\frac{2.36 \times 10^{-4}}{29.92} \times 1768 = 0.0139 \text{ moles F/hr}$$

$$= 0.2650 \text{ lb F/hr}$$

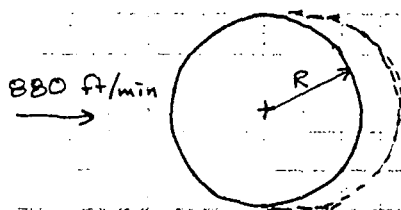
$$= 6.359 \text{ lb F/day}$$

Assume 95% removal of F = 0.3180 lb/day F

Estimate the amount of F entering the atmosphere from the existing 300,000 gallon tank and clarifier, not enclosed.

- Assume wind velocity @ 10 mph  $\approx$  880 ft/min
- Height of blanket over tank  $\approx$  1 ft
- Air leaving the tanks is at the same mole fraction as vented tanks
- Air leaving the tanks is at 140°F

Calculate air flow based on surface area of tanks



$$880 \text{ ft/min} \times 1 \text{ ft} \times \frac{2\pi R}{2}$$

$$880 \text{ ft/min} \times 1 \text{ ft} \times \sim 102 \text{ ft} = 89,850$$

$$880 \text{ ft/min} \times 1 \text{ ft} \times \sim 62 \text{ ft} = 54,560$$

$$\frac{89,850 + 54,560}{2} = 144,410 \text{ ft}^3/\text{min}$$

$$144,410 \text{ ft}^3/\text{min} \times 60 \times 0.06635 = 580,429.8 \text{ lb/hr dry air}$$

$$= 20042 \text{ mole/hr dry air}$$

$$20042 \frac{(29.92)}{(29.92 - 4.33)} = 23434 \text{ mole/hr air/water mixture}$$

$$\frac{2.36 \times 10^{-4}}{29.92} (23434) = 0.1848 \text{ mole/hr of F}$$

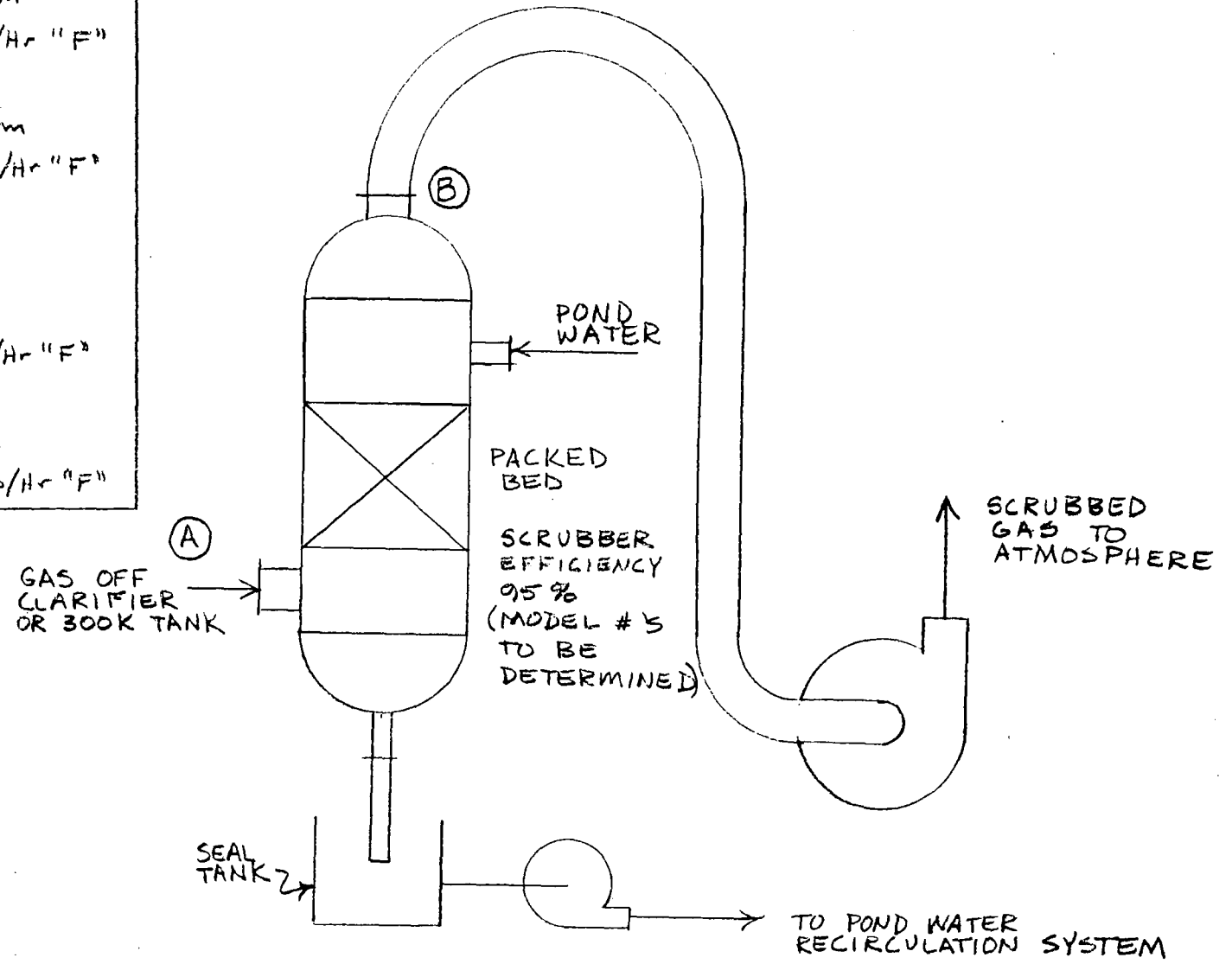
$$= 3.512 \text{ lb/hr of F}$$

$$= 84.28 \text{ lb/day of F}$$

TABLE 1: SCRUBBER PARAMETER

CLARIFIER	
(A)	TEMP = 140°F
	FLOW = 11,000 cfm
	LOAD = 0.265 lb/hr "F"
(B)	TEMP = 100°F
	FLOW = 10,270 cfm
	LOAD = 0.0133 lb/hr "F"
300K TANK	
(A)	TEMP = 140°F
	FLOW = 800 cfm
	LOAD = 0.0193 lb/hr "F"
(B)	TEMP = 100°F
	FLOW = 750 cfm
	LOAD = 0.0010 lb/hr "F"

FIG 1: SCRUBBER SYSTEM



David B. Jellers
   
 PE # 0038676 4/7/89

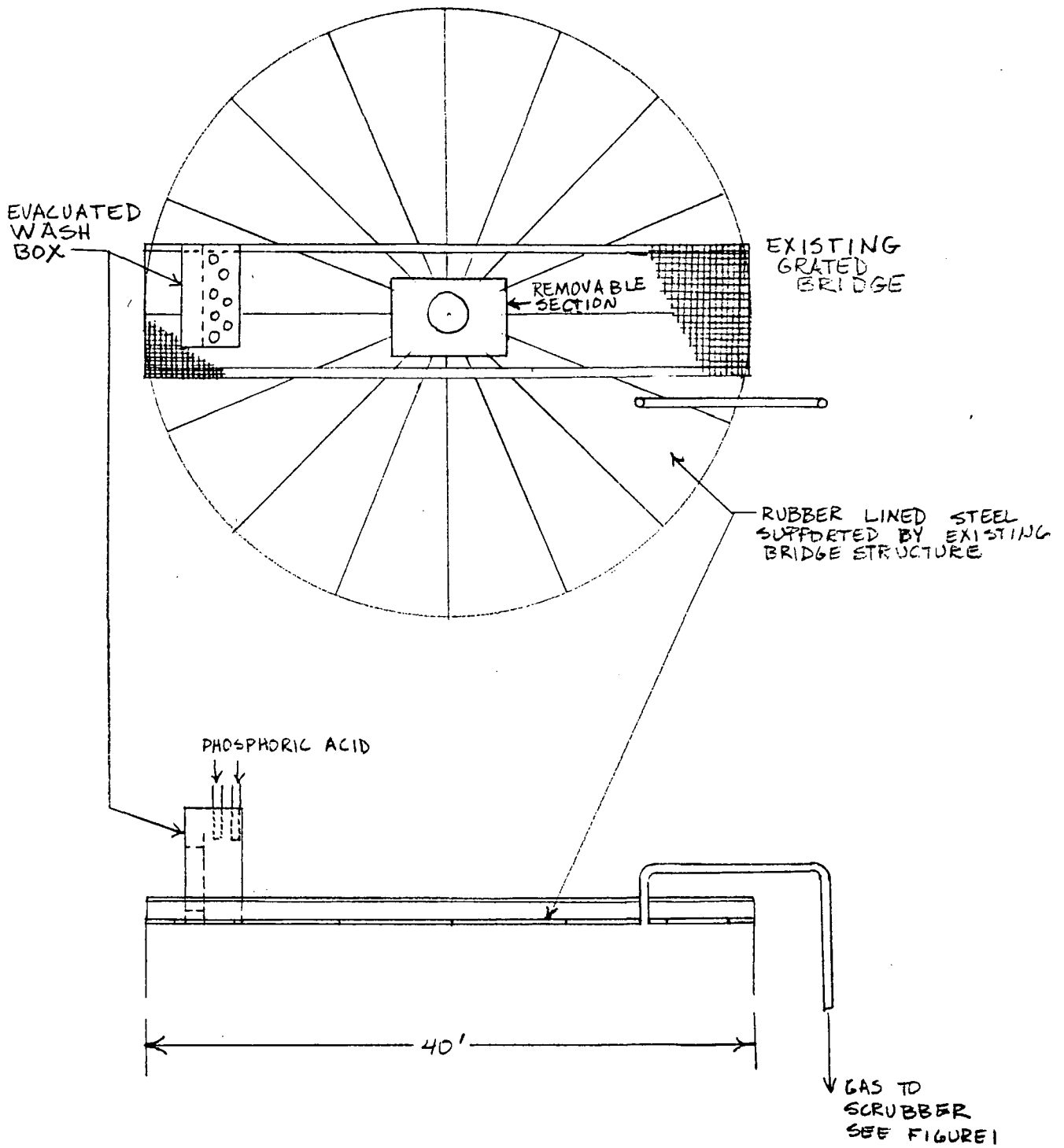


FIG 2: 300,000 GALLON TANK

DAVID B. JELLS  
# PE 0038676 4/5/89

MM  
NOT TO SCALE

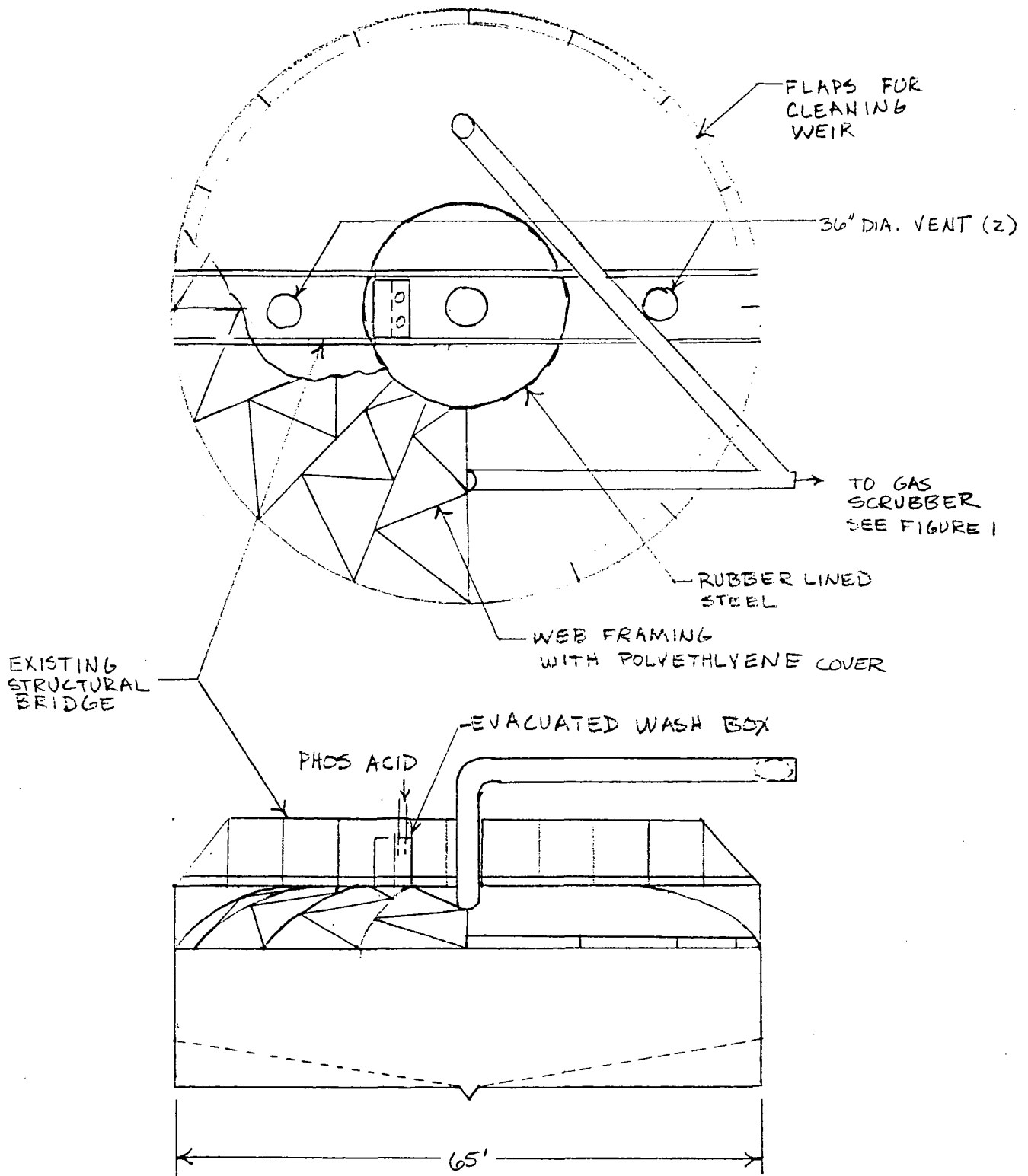
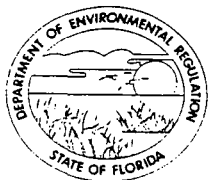


FIG 3: CLARIFIER (30,000 GALLONS)

DAVID B. JELLIS  
 PE 00386743 4/7/89

MM  
 NOT TO SCALE



State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

# Interoffice Memorandum

RECEIVED

APR 24 1989

TO: Dale Twachtmann

for FROM: Steve Smallwood *et al*

Office of the Secretary

SUBJ: Amended Permit Conditions - Gardinier, Inc.

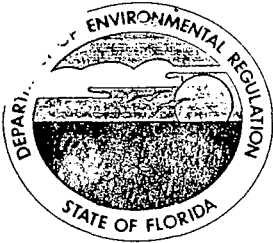
DATE: April 25, 1989

Attached for your approval and signature are amended permit conditions for Gardinier's clarifier/storage tank located near Tampa. Since there is no increase in allowable emission limits, the changes were made without issuing a new permit.

I recommend your approval and signature.

SS/JR/s

Attachments



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

*Rec. 4/27/89*

*File R 17A*

April 25, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Henk Mathot, President  
Gardinier, Inc.  
Post Office Box 3269  
Tampa, Florida 33601

Dear Mr. Mathot:

Re: Application for Permit Modification - Clarifier/Storage Tank  
(AC 29-156206)

This letter confirms that a new construction permit for the proposed modification is not required since the emissions are not being increased. The permit amendment is stated below:

#### Present Description:

For the construction of a phosphoric acid clarifier/storage tank located at the permittee's phosphate fertilizer complex near the intersection on U.S. Highway 41 and Riverview Drive in Hillsborough County, Florida. The latitude and longitude and UTM coordinates are 27°51'30"N by 82°23'57"W and 362.6 km E and 3082.5 km N, respectively.

#### Amended Description:

For the construction of permanent enclosures over an existing phosphoric acid storage tank and an existing phosphoric acid clarifier, each enclosure to be vented to a separate new scrubbing system, located at the permittee's phosphate fertilizer complex near the intersection on U.S. Highway 41 and Riverview Drive in Hillsborough County, Florida. The latitude and longitude and UTM coordinates are 27°51'30"N by 82°23'57"W and 362.6 km E and 3082.5 km N, respectively.



Mr. Henk Mathot  
Page Two  
April 25, 1989

Present Specific Condition No. 1: Deleted.

New Specific Condition No. 1:

The new scrubbers shall be operated at all times except when scrubber downtime is necessary for process or maintenance reasons. Fluoride emissions from the new scrubbers shall not exceed:

<u>Source</u>	<u>lbs/hr</u>	<u>tons/yr</u>
Clarifier	0.013	0.057
Storage Tank	0.001	0.004

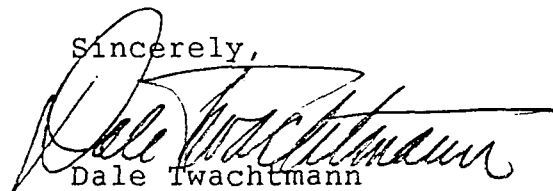
Present Specific Condition No. 2: Deleted.

New Specific Condition No. 2:

Before the construction permit expires, the clarifier and the storage tank scrubbers shall be sampled for fluoride emissions. Test procedures shall be in accordance with EPA reference methods 1, 2, and 13A or 13B as published in 40 CFR 60. The Department's Southwest District office and the Environmental Protection Commission of Hillsborough County (EPCHC) shall be notified in writing 15 days or more prior to the compliance tests. Results of the tests shall be reported to the Department and the EPCHC along with test data including the amount of phosphoric acid in the tanks, fluoride content of the acid and the incoming scrubber water, and pressure drop across the scrubber.

This amendment letter becomes attachment No. 2 to your construction permit AC 29-156206.

Sincerely,



Dale Twachtmann  
Secretary

DT/ks

cc: D. Buff, P.E.  
B. Thomas, SW District  
J. Campbell, EPCHC  
D. Jellerson, Gardinier



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

AUG 11 1988

4APT-AC

Mr. Victor San Agustin  
Senior Air Permit Engineer  
Hillsborough County Environmental  
Protection Commission  
1900 9th Avenue  
Tampa, Florida 33605

Dear Mr. San Agustin:

As requested in your letter of June 16, 1988, to Mr. Brian Beals of my staff, we have determined the applicability of 40 CFR Part 60 Subpart T to the phosphoric acid plant at Gardinier, Incorporated in Gibsonton, Florida. The following is our applicability determination.

Phosphoric acid plant Nos. 3 and 4 are considered parts of one affected facility subject to 40 CFR Part 60, Subpart T. The definition of an affected facility is any combination of reactors, filters, evaporators and hot wells and in this case, plant Nos. 3 and 4 are actually two reactors that utilize common filters, evaporators and hot wells. The entire complex is considered one affected facility.

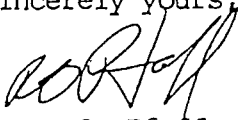
The clarifier, the 300,000 gallon 30%  $H_3PO_4$  storage tank, the east evaporator feed tank, and the west evaporator feed tank, are considered parts of this affected facility. Therefore, according to 40 CFR §60.204(c), the fluoride emissions from these four process units must be included when determining compliance with the fluoride emission standard of Subpart T.

However, the two 54 percent  $P_2O_5$  storage tanks are not considered part of the affected facility. Fluoride emissions from these tanks may be required to be determined because of SIP regulations, PSD, or Gardinier's permit.

We believe that Gardinier should be considered in violation of 40 CFR §60.8 and 40 CFR Part 60, Subpart T. It is evident that at least four sources of fluoride emissions from their wet process phosphoric acid plant have not been tested since the modification of the plant in 1983. Therefore, we anticipate that your agency will be pursuing an enforcement action against Gardinier for these violations.

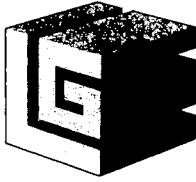
If you have any questions regarding this letter please contact Mr. Paul Reinermann at 404/347-2904.

Sincerely yours,



Roger O. Pfaff, Chief  
Air Compliance Branch  
Air, Pesticides & Toxics  
Management Division

*file copy*



# GARDINIER INC.

Post Office Box 3269    Tampa, Florida 33601    Telephone 813-677-9111    TWX 810-876-0648    Telex-52666    Cable - Gardinphos

RECEIVED

April 28, 1989

MAY 3 1989

DER - BAQM

Mr. C. H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality Management  
Florida Department of  
Environmental Regulation  
2600 Blair Stone Rd.  
Tallahassee, Florida 32399-2400

Subject: Modification of Construction Permit AC29-156206

Dear Mr. Fancy:

We are in receipt of the modification to the above-referenced permit and wish to thank you for your prompt action on this matter. However, we have some concern about the wording of Specific Condition #1 of the modified permit.

As you may recall, this permit concerns the covering of a clarifier and a storage tank at our phosphoric acid production facility. The Department of Environmental Regulation established the emission limitations for these sources (see Specific Condition #1) based on the reasonable interpretation that they are not subject to the New Source Performance Standards established in Subpart T, 40 CFR 60.202. However, by letter to the Hillsborough County Environmental Protection Commission dated August 11, 1988 (attached), the U. S. Environmental Protection Agency made a unilateral decision that these sources are subject to Subpart T and, must be included when determining compliance with the fluoride emission standards for the entire phosphoric acid production facility.

Mr. C. H. Fancy  
April 28, 1989  
Page Two

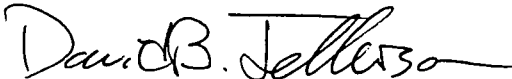
Based on the EPA decision, Gardinier requests that Specific Condition #1 of the above permit be modified to read as follows:

Specific Condition #1 -

1. The new scrubbers shall be operated at all times except when scrubber downtime is necessary for process or maintenance reasons. Fluoride emissions from the new scrubbers, together with the emissions from the remainder of the Wet Phosphoric Acid Plant shall not exceed 0.020 lb/ton of equivalent  $P_2O_5$  feed.

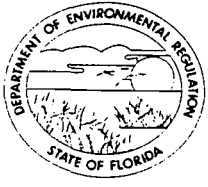
Should you have any questions concerning this matter or require any additional information, please feel free to contact me.

Sincerely,



David B. Jellerson, P.E.  
Environmental Supervisor

cc: J. Campbell, HCEPC  
J. Reynolds, FDER  
W. Thomas, FDER-Tampa  
E. O. Morris  
P-17A  
CHF/BT




State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

# Interoffice Memorandum

TO: Dale Twachtmann

FROM: Steve Smallwood 

DATE: May 18, 1989

SUBJ: Amended Permit Conditions - Gardinier, Inc.

RECEIVED

MAY 18 1989

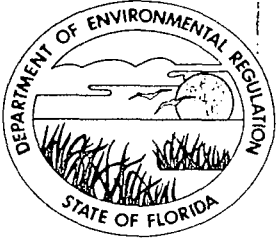
Office of the Secretary

Attached for your approval and signature are amended permit conditions for Gardinier's clarifier/storage tank located near Tampa.

I recommend your approval and signature.

SS/JR/plm

Attachments



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

May 18, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Henk Mathot, President  
Gardinier, Inc.  
Post Office Box 3269  
Tampa, Florida 33601

Dear Mr. Mathot:

Re: Request for Permit Modification - Clarifier/Storage Tank  
(AC 29-156206)

In view of the EPA's determination of the applicability of 40 CFR Part 60 Subpart T to Gardinier's clarifier/storage tank, the above permit is amended as stated below:

Present Specific Condition No. 1:

The new scrubbers shall be operated at all times except when scrubber downtime is necessary for process or maintenance reasons. Fluoride emissions from the new scrubbers shall not exceed:

Source	lbs/hr	tons/yr
Clarifier	0.013	0.057
Storage Tank	0.001	0.004

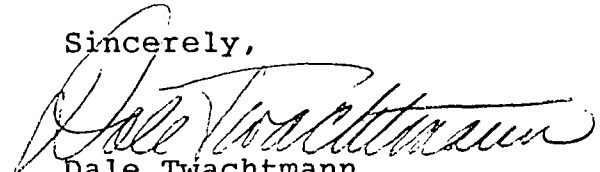
New Specific Condition No. 1:

1. The new scrubbers shall be operated at all times except when scrubber downtime is necessary for process or maintenance reasons. Fluoride emissions from the new scrubbers, together with the emissions from the remainder of the Wet Phosphoric Acid Plant, shall not exceed 0.020 lb/ton of equivalent P<sub>2</sub>O<sub>5</sub> feed.

Mr. Henk Mathot  
Page Two  
May 18, 1989

This amendment letter shall become attachment No. 3 to your construction permit AC 29-156206.

Sincerely,

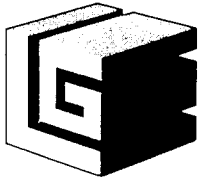


Dale Twachtman  
Secretary

DT/plm

cc: D. Buff, P.E.  
B. Thomas, SW District  
J. Campbell, EPCHC  
D. Jellerson, Gardinier





GARDINIER INC.

RECEIVED

OCT 10 1989

DER-BAQM

Post Office Box 3269

Tampa, Florida 33601

Telephone 813-677-9111

TWX 810-876-0648

Telex - 52666

Cable - Gardinghos

September 28, 1989

Mr. Clair H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality Management  
Florida Department of Environmental  
Regulation  
2600 Blair Stone Rd.  
Tallahassee, Florida

Re: Phosphoric Acid Clarifier/Storage Tanks  
(AC29-156206)

Dear Mr. Fancy:

Construction efforts to control emissions from the subject tanks are ahead of schedule. The tanks have been covered and are presently evacuated through scrubbers. Some minor fugitive emissions around the tanks are being addressed.

To expedite the completion of the 300 thousand gallon phosphoric acid tank, a Croll Reynolds (Model # 66-24V) venturi scrubber was available to us, and consequently substituted for the packed tower scrubber.

The units will be performance tested well within the permit requirements.

Please call if you have questions or concerns.

Sincerely,

Wesley C. Sassaman, REM  
Environmental Coordinator

Encl.: Croll Reynolds (Model # 66-24V) Diagram

cc: Jerry Campbell, HCEPC  
W. Thomas, FDER-Tampa  
E. Morris  
Pile-17-A *EM*

~~Pat~~ John R. 10/16  
For permit file. Ask  
engineer if permit needs to  
be amended to reflect the  
different scrubber.

10/14 *Alan*  
In my opinion,  
it doesn't matter as long  
as they meet the  
emission limits. JR

John Reynolds - 10/24  
Please look at permit and  
application and see if scrubber  
type mentioned. I'd like to see  
application and permit.

*Alan*  
The application shows a packed  
scrubber. Looks like they put  
in a packed scrubber on the  
clarifier and a venturi on the  
blowdown. The permit doesn't  
specify but it must be a packed type.

**We've Changed  
OUR ADDRESS**



**RECEIVED**

OCT 10 1989

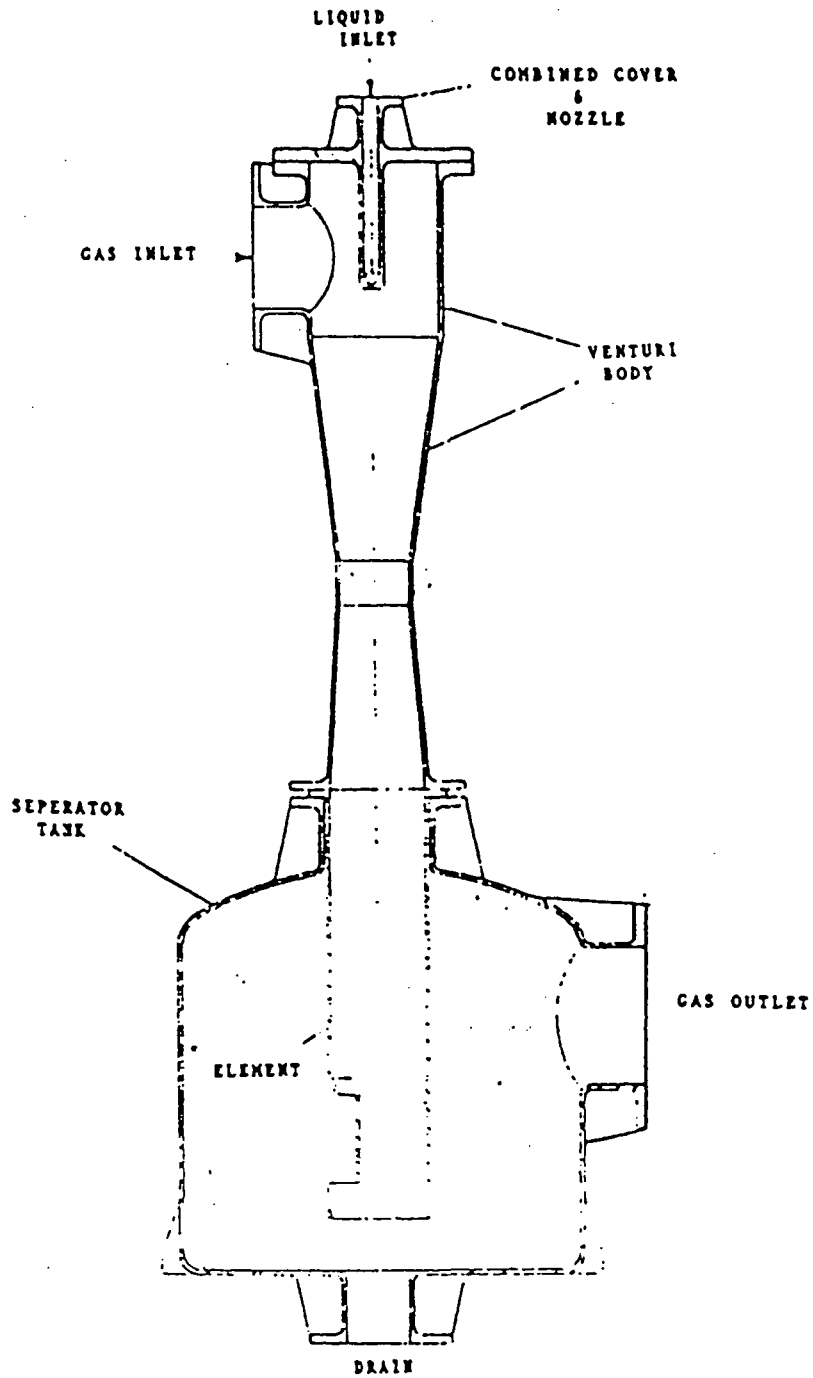
**GARDINIER**

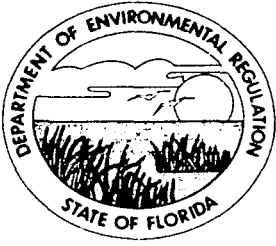
DER-BAQM

8813 HWY. 41 SOUTH  
RIVERVIEW, FLORIDA 33569

Scrubber at the 300,000 Gallon Storage Tank

Croll Reynolds (Model No. 66-24V)  
Venturi Scrubber





# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

October 27, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

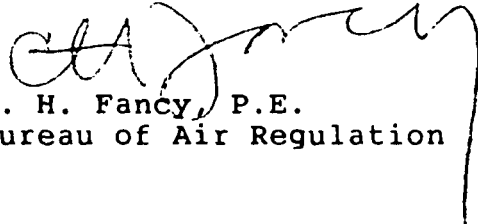
Mr. Henk Mathot, President  
Gardinier, Inc.  
8813 Highway 41 South  
Riverview, Florida 33569

Dear Mr. Mathot:

Re: Permit No. AC 29-156206 (Gardinier's Letter Dated 9/28/89)

This confirms that the Bureau of Air Regulation has no objection to the substitution of the Croll-Reynolds Model No. 66-24 V venturi scrubber for the packed scrubber shown in Gardinier's phosphoric acid storage tank application.

Sincerely,

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

CHF/JR/t

cc: D. Buff, P.E.  
B. Thomas, SW District  
E. Svec, EPCHC  
W. Sassaman, Gardinier