STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING 2600 BLAIR STONE ROAD TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ GOVERNOR DALE TWACHTMANN

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF PERMIT

Mr. Rudy J. Cabina Vice President Gardinier, Inc. Post Office Box 3269 Tampa, Florida 33601

October 16, 1987

Enclosed is permit No. AC 29-135083 to modify the No. 5 Diammonium Phosphate plant at the Gardinier phosphate fertilizer complex located in Tampa, Hillsborough County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any Party to this permit has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this permit is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.

Deputy Chief

Bureau of Air Quality Management

Copy furnished to:

W. Thomas, SW Dist.

D. Buff, P.E., KBN

W. Aronson, EPA

M. Flores, NPS

J. Campbell, EPCHC

E. Morris, Gardinier, Inc.

Final Determination

Gardinier, Inc. Tampa, Florida Hillsborough County

Modification of No. 5 DAP Plant
State Permit No. AC 29-135083

Florida Department of Environmental Regulation Central Air Permitting Bureau of Air Quality Management

October 9, 1987

Final Determination

Gardinier's application for a permit to modify the No. 5 Diammonium Phosphate plant at their Tampa phosphate fertilizer complex has been reviewed by the Bureau of Air Quality Management. Public Notice of the Department's intent to issue the permit was published in The Tampa Tribune on August 20, 1987. Copies of the Technical Evaluation and Preliminary Determination were available for public inspection at the Environmental Protection Commission of Hillsborough County (EPCHC) Office in Tampa and the Department's offices in Tampa and Tallahassee.

Comments were submitted by the Environmental Protection Agency (EPA) and the EPCHC. The issues and the Department's responses are as follows:

Issue No. 1: Whether the proposed modification is subject to PSD Review

The EPA believes that the modification is subject to PSD review. They contend that the net increase in particulate and SO₂ emissions will exceed the significant levels when allowances are made for contemporaneous emission reductions from the triplesuperphosphate shutdown. The EPA position is that the contemporaneous reduction allowance should be substantially less and based solely on natural gas operation instead of fuel oil since the more expensive fuel oil was not burned in recent years.

The Department does not agree with the EPA's position. The modification is essentially a transfer of existing P_2O_5 production from the triplesuperphosphate units to the No. 5 DAP plant, both of which are currently permitted to operate on fuel oil. Long-standing practice has been for the Department to permit a source based on use of fuel oil rather than natural gas where both are used but the availability of natural gas cannot be assured at all times. To do otherwise would require separate emission limits for operation on different fuels.

Thus, fuel oil operation is the control variable for permitting of both the triplesuperphosphate and DAP plants. The fact that a shift in production takes place does not change the control variable on which both plants are permitted. For this reason the Department believes that the permitted emission limits and the contemporaneous reduction credits should each be determined based on fuel oil operation. An estimate of actual annual emissions was made using that part of the data considered as representative of operation on fuel oil. The Florida SIP emissions inventory for fuel combustion sources utilized AP-42 factors as were used in this application.

The net reductions are of sufficient magnitude to rule out PSD review and it makes no difference with regard to PSD whether the original construction permit level of 70.1 TPY of SO₂ is used or the PSD permit level of 43.8 TPY, or whether the particulate offset is 56.9 TPY or 35 TPY.

Issue No. 2: Whether a 20% opacity standard should be included in the permit

The EPCHC stated that a visible emission limit should be included in the permit in accordance with Section 17-2.650(2)(c)5.b.(i). The original construction permit issued in 1980 after the RACT rule went into effect in 1979 did not include a limit on visible emissions. This was because the word "or" was interpreted to mean "either" - not "and." Webster has defined "or" as a conjunction used to indicate an alternative, being synonymous with "either."

Issue No. 3: Whether EPA Methods 4 and 9 should be added to the requirements under Specific Condition No. 9

The EPCHC desires to include the moisture determination method (EPA Method 4) as a requirement for the compliance test. This is unnecessary since EPA Method 5 includes an acceptable reference method moisture determination done simultaneously with a particulate run. (See 40 CFR 60, Method 4, Paragraph 2, and Method 5, Paragraph 4.2). It should be noted that EPA does not require Method 4 for DAP plants. Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources, is not required as long as the above interpretation of the RACT rule remains in effect.

Issue No. 4: Whether the compliance test should be conducted at plus or minus ten percent of the permitted maximum production rate or ninety to one hundred percent of the normal maximum production rate.

The EPCHC requested compliance testing within a twenty percent range the middle of which is the maximum permitted production rate. Although this condition has been used in the past, the Department has found that it is not practical to specify testing at a rate higher than the normal maximum operating rate. The compliance test should be representative of normal operating conditions. If the source is frequently operated at ten percent above the permitted rate, the permit should be changed to reflect the normal maximum. As indicated in Specific Condition No. 1, operation at ten percent or more above the maximum permitted rate will trigger a compliance test the results of which will establish the need for enforcement action and/or permit modification.

Conclusion

Having duly considered the comments received, the Department finds no reason to make substantive changes to the proposed construction permit.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING 2600 BLAIR STONE ROAD TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ GOVERNOR DALE TWACHTMANN SECRETARY

PERMITTEE:
Gardinier, Inc.
P. O. Box 3269
Tampa, Florida 33601

Permit Number: AC 29-135083
Expiration Date: August 31, 1988
County: Hillsborough
Latitude/Longitude: 27° 51' 28" N
82° 23' 15" W
Project: Modification of No. 5

Diammonium Phosphate Plant

This permit is issued under the provisions of Chapter $\frac{403}{17-2}$. Florida Statutes, and Florida Administrative Code Rule(s) $\frac{17-2}{17-2}$ and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the modification of a diammonium phosphate plant 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°51'28"N by 82°23'15"W and 362.9 km E and 3082.5 km N, respectively.

Modification shall be in accordance with the attached permit application except as otherwise noted under the Specific Conditions set forth in this permit.

Attachments are as follows:

- Application to Construct Air Pollution Sources, DER form 17-1.202(1), and letter dated May 26, 1987.
- Incompleteness letter dated June 8, 1987.
- Response to incompleteness letter received June 25, 1987.
- 4. Letter from EPA dated July 27, 1987.
- 5. Letter from the Environmental Protection Commission of Hillsborough County dated August 27, 1987.
- Letter from EPA dated September 10, 1987.

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Permit Number: AC 29-135083 Expiration Date: August 31, 1988

GENERAL CONDITIONS:

- 1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.
- 2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- 3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- 4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.
- 5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

Permit Number: AC 29-135083 Expiration Date: August 31, 1988

GENERAL CONDITIONS:

- 6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- 7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:
 - a. Having access to and copying any records that must be kept under the conditions of the permit;
 - b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

- 8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:
 - a. a description of and cause of non-compliance; and
 - b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

Permit Number: AC 29-135083 Expiration Date: August 31, 1988

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

- 9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.
- 10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- 11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- 12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.
- 13. This permit also constitutes:
 - () Determination of Best Available Control Technology (BACT)
 - () Determination of Prevention of Significant Deterioration (PSD)
 - (x) Compliance with New Source Performance Standards.
- 14. The permittee shall comply with the following monitoring and record keeping requirements:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

Permit Number: AC 29-135083 Expiration Date: August 31, 1988

GENERAL CONDITIONS:

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.
- 15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. Maximum permitted production rate for this plant shall be 55.2 TPH P2O5 input. If the production rate exceeds the maximum permitted rate by 10% or more at any time, a compliance test must be conducted after notifying the Department and the Environmental Protection Commission of Hillsborough County (EPCHC) and the results of this test, along with other information listed in Specific Condition No. 9 must be submitted to the Department and the EPCHC within 10 working days. Any emissions in excess of those listed in Specific Condition No. 2 shall constitute a violation of this permit. The plant may operate 8,760 hours per year if permitted emissions are not exceeded.

Permit Number: AC 29-135083
Expiration Date: August 31, 1988

SPECIFIC CONDITIONS:

2. The emissions from the 7 foot diameter, 132.5 foot high stack for the No. 5 plant shall not exceed:

Pollutant	Standard	Maximum Allowable Emissions	
		lb/hr	T/yr
Particulate	0.36 lb/T P ₂ O ₅	20	87.6
SO ₂	$0.58 \text{ lb/T } P_2O_5$	31.8	139.4
SO ₂ Fluoride	0.06 lb/T P205	3.3	14.5

- 3. Fugitive emissions from the process, conveying and storage equipment shall be controlled by sealing and/or venting all particulate and fumes from the equipment to the pollution abatement system.
- 4. Fuel oil used in the drying operation shall contain no more than 2.5% sulfur.
- 5. The permittee shall install, calibrate, maintain, operate and record data from flow monitoring devices used to determine total $P_{2}O_{5}$ input to the plant. A daily record on the $P_{2}O_{5}$ input to the plant shall be maintained.
- 6. The permittee shall measure and record the total pressure drop across each scrubber system. Pressure drop across the venturi scrubbers must be at least 12 inches of water during plant operation. These records shall be maintained for 2 years and available for inspection by regulatory agency personnel on request.
- 7. Modification should commence and be completed within a reasonable time based on the projections in the application.
- 8. Reasonable precautions to prevent fugitive particulate emissions during modification, such as coating or spraying roads and construction sites used by contractors, shall be taken by the permittee.
- 9. Before the construction permit expires, the DAP plant shall be sampled for particulate, sulfur dioxide and fluoride emissions. Test procedures shall be in accordance with EPA reference methods 1, 2, 3, 5, 6, and 13A and 13B as published in 40 CFR 60, dated July 1, 1986. The Department and the EPCHC shall be notified in writing 15 days or more prior to the compliance test. The test shall be conducted at permitted production capacity or no less than 90% thereof. P2O5 input, pH of scrubber solution, and pressure drop across the scrubbers shall be reported to the Department and the EPCHC along with the test data and results.

Permit Number: AC 29-135083 Expiration Date: August 31, 1988

SPECIFIC CONDITIONS:

The applicant will demonstrate compliance with the conditions of this permit and submit a complete application for an operating permit including an operating and maintenance plan to the S.W. DER office and EPCHC at least 90 days before the expiration date of this construction permit. The permittee may continue to operate in compliance with all terms of this permit until the expiration date or issuance of an operating permit.

10. The No. 3 and No. 4 Triple Superphosphate Reactor Belts and Dryers, and the ROP/TSP Sizing Unit sources will permanently cease operation prior to the startup of the DAP plant under the modified conditions of this permit.

Issued this Aday of the 1987

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

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Dale Twachtmann, Secretary

State of Florida DEPARTMENT OF ENVIRONMENTAL REGULATION



Interoffice Memorandum

For Routing To Other Than The Addressee		
To:	Location:	
То:	Location:	
To:	Location:	
From: _	Oate:	

TO: Dale Twachtmann

THRU: Howard Rhodes

FROM: Clair Fancy

DATE: October 9, 1987

SUBJ: Approval of Construction Permits No. AC 29-135083

Gardinier, Inc.

Attached for your approval and signature is a construction permit to modify the No. 5 Diammonium Phosphate plant at the Gardinier phosphate fertilizer complex located in Tampa, Hillsborough County, Florida. There were comments received during the public notice period.

Day 90 after which these permits will be issued by default is October 19, 1987.

The Bureau recommends approval and signature.

CHF/MJ/s

attachment



Office of the Secretary