



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

May 13, 2005

Mr. Herschel E. Morris
Vice President Phosphate Operations/General Manager
CF Industries, Inc.
P.O. Box Drawer L
Plant City, FL 33564

Re: Air Construction Permit 0570005-020-AC and Title V Air Operation Permit No. 0570005-017-AV
CF Industries, Inc. – Plant City Phosphate Complex
Renewal and Revision of Title V Operation Permit including Air Construction Permit to remove obsolete conditions and add clarifying conditions.

Dear Mr. Morris:

On September 2, 2004, you submitted an application for an air construction permit revision to remove obsolete conditions and add clarifying conditions. As requested, this application will be processed concurrently with the Title V air operation permit renewal application that you submitted on November 20, 2002 for the Plant City Phosphate Complex, which is located at 10608 Paul Buchman Highway, Plant City. In addition, the Title V Operation Permit Renewal will incorporate a revision to add the applicable NESHAP requirements of 40 CFR 63 Subparts AA and BB to affected emissions units. Enclosed are the following documents: "Technical Evaluation and Preliminary Determination", "DRAFT Air Construction Permit", "Statement of Basis", "DRAFT Title V Air Operation Permit", "Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit", and "Public Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit".

The "Technical Evaluation and Preliminary Determination" summarizes the Permitting Authority's technical review of the application and provides the rationale for making the preliminary determination to issue the DRAFT air construction permit. The "Statement of Basis" summarizes the content of the Title V permit and the revisions made to the permit. The "DRAFT Air Construction Permit" and "DRAFT Title V Air Operation Permit" (DRAFT Permits) include specific conditions that regulate the emissions units at this facility. The "Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit" provides important information regarding: the Permitting Authority's intent to issue the DRAFT Permits; the requirements for publishing a Public Notice of the Permitting Authority's intent to issue the DRAFT Permits; the procedures for submitting comments on the DRAFT Permits; the requirements for requesting a public meeting; the requirements for filing a petition for an administrative hearing; and the availability of mediation. The "Public Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit" is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project.

If you have any questions, please contact the Project Engineer, Ms. Cindy Phillips, P.E., at 850/921-9534 or Cindy.Phillips@dep.state.fl.us.

Sincerely,

Trina L. Vielhauer, Chief
Bureau of Air Regulation

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

**WRITTEN NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND
TITLE V AIR OPERATION PERMIT**

In the Matter of an

Application for Air Construction Permit and Title V Air Operation Permit by:

Mr. Herschel E. Morris, General Manger
Vice President Phosphate Operations
CFI Industries, Inc.
P.O. Box Drawer L
Plant City, FL 33564

DRAFT Air Permits Nos.:
0570005-020-AC & 0570005-017-AV
Plant City Phosphate Complex
Permit Revisions and Title V Renewal
Hillsborough County, Florida

Facility Location: The applicant requests a Title V air operation permit (Permit) to operate a Phosphate Complex, which is located at 10608 Paul Buchman Highway, Plant City, Hillsborough County, Florida.

Project: On September 2, 2004, the applicant submitted to the Permitting Authority an air construction permit revision to remove obsolete conditions and add clarifying conditions. As requested by the applicant, this application will be processed concurrently with the Title V air operation permit renewal application submitted by the applicant on November 20, 2002 for the Plant City Phosphate Complex. In addition, the Title V Operation Permit Renewal will incorporate a revision to add the applicable NESHAP requirements of 40 CFR 63 Subparts AA and BB to affected emissions units. Details of the project are provided in the applications and the enclosed "Technical Evaluation and Preliminary Determination". The enclosed "Statement of Basis" summarizes the content of the Title V permit and the revisions made to the permit.

Permitting Authority: These applications for an air construction permit and a Title V air operation permit are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-213, Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and air permits are required to operate the facility and to renew and make revisions to the current permit. The FDEP Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination regarding this project. The Permitting Authority's physical address is: FDEP Bureau of Air Regulation at 111 S. Magnolia, Suite 4, Tallahassee, FL 32301. The Permitting Authority's mailing address is: FDEP Bureau of Air Regulation, MS 5505, 2600 Blair Stone Road, Tallahassee, FL 32399-2400. The Permitting Authority's telephone number is 850/488-0114 and facsimile 850/921-9533.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the Permitting Authority. The complete project file includes the Technical Evaluation and Preliminary Determination, the DRAFT Permits, the Statement of Basis, the applications, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the DRAFT Permits and file electronic comments by visiting the following website: <http://www.dep.state.fl.us/air/eproducts/ards/>. A copy of the complete project file is also available at the following offices: FDEP Southwest District Office, 8407 Laurel Fair Circle, Tampa, FL 33610 (Telephone: 850/488-0114); and Environmental Protection Commission of Hillsborough County, 1410 North 21 Street, Tampa, FL 33605 (Telephone: 813/272-5605).

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue permits to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the facility will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a FINAL Air Construction Permit, a PROPOSED Title V Operation Permit and subsequent FINAL Title V Operation Permit in

**WRITTEN NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND
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accordance with the conditions of the DRAFT Permits unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "Public Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit" (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at above address or phone number. Pursuant to Rule 62-110.106(5), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within seven (7) days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permits pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the DRAFT Permits for a period of thirty (30) days from the date of publication of this Public Notice. Written comments must be post-marked, and all e-mail or facsimile comments must be received by the close of business (5 pm), on or before the end of this 30-day period by the Permitting Authority at the above address, e-mail or facsimile. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location on the Department's official web site for notices at <http://tlhora6.dep.state.fl.us/onw> and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the DRAFT Permits, the Permitting Authority issue Revised DRAFT Permits and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the attached Public Notice or within fourteen (14) days of receipt of this Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner;

**WRITTEN NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND
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the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Objections: Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within sixty (60) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the Permit that were raised with reasonable specificity during the thirty (30) day public comment period provided in the Public Notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's web site at <http://www.epa.gov/region4/air/permits/Florida.htm>.

Executed in Tallahassee, Florida.



Trina L. Vielhauer, Chief
Bureau of Air Regulation

**WRITTEN NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND
TITLE V AIR OPERATION PERMIT**

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this "Written Notice of Intent to Issue Air Construction Permit, and Title V Air Operation Permit" package (including the "Technical Evaluation and Preliminary Determination", "DRAFT Air Construction Permit", "Statement of Basis", "DRAFT Title V Air Operation Permit", and "Public Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit") was sent by certified mail (*) and copies were mailed by U.S. Mail or electronic mail before the close of business on 5/17/05 to the persons listed below.

Mr. Herschel E. Morris, CFI*
Mr. J. Michael Messina, CFI
Mr. Tom Edwards, CFI
Mr. David A. Buff, P.E., Golder
Ms. Cindy Phillips, P.E., Bureau of Air Regulation
Mr. Jason Waters, FDEP-SWD
Ms. Alice Harman, EPCHC
EPA Region 4

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

Barbara J. Friday 5/17/05
(Clerk) (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND
TITLE V AIR OPERATION PERMIT**

Florida Department of Environmental Protection
DRAFT Air Construction Permit No. 0570005-020-AC
DRAFT Title V Air Operation Permit No. 0570005-017-AV
CFI Industries, Inc. – Plant City Phosphate Complex
Hillsborough County

Applicant: The applicant for this project is CFI Industries, Inc., Plant City Phosphate Complex, P.O. Box Drawer L, Plant City, FL 33565. The applicant's responsible official is Mr. Herschel E. Morris, Vice President Phosphate Operations/General Manager.

Facility Location: The applicant operates a Phosphate Complex which is located at 10608 Paul Buchman Highway, Plant City, in Hillsborough County, Florida.

Project: The applicant submitted an application for a Title V air operation permit revision and an application for an air construction permit revision to remove obsolete conditions and add clarifying conditions. Also, the applicant also submitted an application for the renewal of the Title V Air Operation Permit for this facility. The Title V Operation Permit Renewal will incorporate a revision to add the applicable NESHAP requirements of 40 CFR 63 Subparts AA and BB to affected emissions units.

Permitting Authority: Applications for Title V air operation permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-213 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to operate the facility. The FDEP Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination regarding this project. The Permitting Authority's physical address is: FDEP Bureau of Air Regulation at 111 S. Magnolia, Suite 4, Tallahassee, FL 32301. The Permitting Authority's mailing address is: FDEP Bureau of Air Regulation, MS 5505, 2600 Blair Stone Road, Tallahassee, FL 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the DRAFT Permits, the Statement of Basis, the applications, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the DRAFT Permits and file electronic comments by visiting the following website: <http://www.dep.state.fl.us/air/eproducts/ards/>. A copy of the complete project file is also available at the following offices: FDEP Southwest District Office, 8407 Laurel Fair Circle, Tampa, FL 33610 (Telephone: 850/488-0114); and Environmental Protection Commission of Hillsborough County, 1410 North 21 Street, Tampa, FL 33605 (Telephone: 813/272-5605).

Notice of Intent to Issue A Permit: The Permitting Authority gives notice of its intent to issue permits to the applicant for the projects described above. The applicant has provided reasonable assurance that operation of the facility will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a FINAL Air Construction Permit, a PROPOSED Title V Operation Permit and subsequent FINAL Title V Operation Permit in accordance with the conditions of the DRAFT Permits unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the Draft Permits for a period of thirty (30) days from the date of publication of this Public Notice. Written comments must be post-marked and all e-mail or facsimile comments must be received by the close of business (5 pm) on or before the end of this 30-day period by the Permitting Authority at the above address, e-mail or facsimile. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a

(Public Notice to be Published in the Newspaper)

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND
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public meeting, it will publish notice of the time, date, and location on the Department's official web site for notices at <http://tlhora6.dep.state.fl.us/onw> and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the DRAFT Permits, the Permitting Authority shall issue Revised DRAFT Permits and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial rights will be affected by the agency determination; (c) A statement of how and when the petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of intent. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.

Objections: In addition to the above right to petition, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within sixty (60) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the Permit that were raised with reasonable specificity during the thirty (30) day public comment period provided in the Public Notice, unless the petitioner demonstrates to the

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AND
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Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's Region 4 web site at <http://www.epa.gov/region4/air/permits/Florida.htm>.

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

For "X", "Y", and "Z" Rock Bins:

~~K.2.~~ The maximum allowable particulate matter emission rate from each storage bin baghouse exhaust shall not exceed 0.47 pounds per hour, and shall not exceed 2.06 tons per year.
~~[Construction Permit AC29-190635, requested by applicant, and Rule 62-296.700(2)(b), F.A.C.]~~

~~K.3.~~ Visible emissions from each storage bin baghouse exhaust shall not exceed 5% opacity
~~[Construction Permit AC29-190637]~~

~~L.2.~~ The clean up system shall not exceed 3.0 lbs./hr. and 13.1 tons/yr. of particulate matter emissions.
~~[Construction permit 0570005-006-AC, and Rule 62-296.700(2)(b), F.A.C.]~~

~~L.34.~~ Test the emissions from the scrubber for, particulate matter, visible emissions, and ~~total~~ fluorides annually, on or during the 60 day period prior to August 23.
~~[Rules 62-297.310(7)(a)4., F.A.C.]~~

~~L.45.~~ Compliance with the emission limitations of Conditions ~~3,~~ and L.2 shall be determined using EPA Methods 1, 2, 4, ~~5,~~ 9, and 13A or 13B (without distillation) contained in 40 CFR 60, Appendix A and adopted by reference in Rule ~~Chapter~~ 62-297, F.A.C. The minimum requirements for stationary point source emissions test procedures and reporting shall be in accordance with Rule ~~Chapter~~ 62-297, F.A.C. and 40 CFR 60, Appendix A.
~~[Rule ~~Chapter~~ 62-297, F.A.C., and Air Construction Permit 0570005-006-AC]~~

~~L.6.~~ A summary of each scrubber's operating parameters during any compliance test shall be included in the compliance test report:

- ~~— a. Type of scrubber liquid,~~
- ~~— b. Volumetric liquid flow rate (gpm), and~~
- ~~— c. Total gas pressure drop (inches w.g.).~~
- ~~— d. Fan Amperes.~~

~~[Rule 62-4.070(3), F.A.C.]~~

~~L.57. This emissions unit is subject to the Compliance Assurance Monitoring requirements contained in the attached APPENDIX CAM.
~~[40 CFR 64]~~~~

The scrubber shall operate at no less than 90% of the following values:

Fan Amperes	_____	GPM
	40	110

At least every 12 hours record the fan amperes and GPM for the scrubber. If the scrubber falls below the above limitations, it shall not be considered a violation if the procedure in Condition 10 is followed.
~~{Permitting Note: The scrubber operating parameters for the most recent compliance test are listed below.}~~

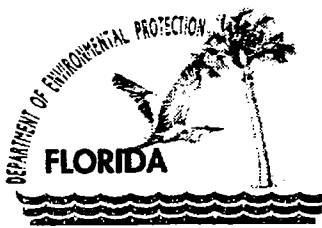
Compliance Test Date	Liquid Flow Rate (gpm)	Scrubber Fan Amps
4/17/97	450	95

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

~~L.8. The permittee shall create and maintain a record log indicating the scrubber's performance. The record log shall contain, at a minimum:~~

- ~~_____ A. The scrubber identification;~~
- ~~_____ B. The type of scrubber liquid;~~
- ~~_____ C. Volumetric liquid flow rate (gpm);~~
- ~~_____ D. Total gas pressure drop (inches w.g.);~~
- ~~_____ E. The date and time of the measurements, and~~
- ~~_____ F. The person responsible for performing measurements.~~
- ~~_____ G. Fan amperes.~~

~~A record log entry shall be made at least once for every 8 or 12 hour shift that the phosphoric acid clean-up system operates. [Rule 62 4.070(3), F.A.C.]~~



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

PERMITTEE:

CF Industries, Inc.
Plant City Phosphate Complex
PO Drawer L
Plant City, Florida 33565

Permit No.	0570005-020-AC
Project:	Removal of obsolete conditions and addition of clarifying conditions
SIC:	2874
Expires:	January 6, 2006

Authorized Representative:
Herschel E. Morris, General Manager
Vice President Phosphate Operations
Plant City Phosphate Complex

PROJECT AND LOCATION:

This air construction permit is to establish the deletion of obsolete conditions and the addition of clarifying conditions as applicable to the Title V Operation Permit.

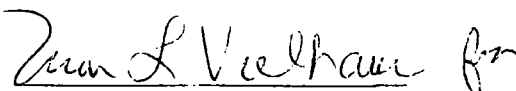
The CF Industries, Inc. Plant City Phosphate Complex is located at 10608 Paul Buchman Highway, Plant City, Hillsborough County. UTM coordinates are Zone 17; 338 km E; 3116 km N.

STATEMENT OF BASIS:

This air construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to construct/operate the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices made a part of this permit:

Appendix GC Construction Permit General Conditions


Michael G. Cooke, Director
Division of Air Resource
Management

SECTION I. GENERAL INFORMATION

FACILITY DESCRIPTION

This facility consists of a phosphate fertilizer manufacturing facility producing sulfuric acid, phosphoric acid, DAP (diammonium phosphate), and MAP (monoammonium phosphate).

EMISSIONS UNITS

This permit revision addresses the following emissions units. Emission Units shown as stricken through are no longer permitted.

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
002	"A" Sulfuric Acid Plant
003	"B" Sulfuric Acid Plant
004	"A" Phosphoric Acid Plant
009	"B" Phosphoric Acid Plant
010	"A" DAP/MAP Plant
011	"Z" DAP/MAP Plant
012	"X" DAP/MAP/GTSP Plant
013	"Y" DAP/MAP/GTSP Plant
014	"A" and "B" Storage Buildings
015	"A" Shipping Baghouse
018	"B" Shipping Baghouse
019	"B" Truck Loading
020	"B" Railcar Loading
025	Rock Unloading and Storage
026	Product Reclaim Handling System
027, 028, 029	"X, Y, Z" Rock Bins
032	Phosphoric Acid Cleanup
034	Clay Unloading Bin

REGULATORY CLASSIFICATION

Because potential emissions of at least one regulated pollutant exceed 100 tons per year, the existing facility is a Title V Source and major source of air pollution in accordance with Chapter 62-213, F.A.C. Regulated pollutants include pollutants such as nitrogen oxides (NO_x), particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), and sulfuric acid mist (SAM).

In addition, the Department has determined that this facility is a major source of hazardous air pollutants (HAPs), based upon its estimation of emissions of hydrogen fluoride. If additional testing and modeling demonstrate: (1) that the facility is not and has never been a major source of hazardous air pollutants since at least June 10, 2002, or (2) if prospective changes to Subparts AA and BB warrant such an outcome, the permittee shall have the right to request that the Department revise the determination of major source status and revise this permit to remove all requirements and conditions based on 40 CFR Part 63.

RELEVANT DOCUMENTS

Construction Permit Application 0570005-020-AC received September 2, 2004, including request for concurrent processing of Title V Air Operation Permit Revision. The Title V Air Operation Permit Revision will be incorporated into the Title V Air Operation Permit Revision/Renewal project 0570005-017-AV.

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

1. Permitting Authority:
 - a. For this permit, the permitting authority is the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, and phone number (850)488-0114.
 - b. For future permitting actions, all documents related to applications for permits to construct or modify an emissions unit should be submitted to the Florida Department of Environmental Protection (FDEP), Southwest District, 3804 Coconut Palm Drive, Tampa, FL 33619 and phone number (813)744-6100.
2. Compliance Authority: All documents related to operation, reports, tests, and notifications should be submitted to the Environmental Protection Commission of Hillsborough County (EPC) at
Environmental Protection Commission
of Hillsborough County
3629 Queen Palm Drive
Tampa, Florida 33619
Telephone: 813/627-2600
Fax: 813/627-2660
3. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
4. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
5. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]
6. Modifications: The permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and the anticipated completion date of the change. [Chapters 62-210 and 62-212, F.A.C.]
7. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
8. Completion of Construction: The permit expiration date is January 6, 2006.
9. Permit Expiration Date Extension: The permittee, for good cause, may request that this permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rule 62-4.080, F.A.C.]
10. Application for Title V Permit Revision: Concurrent processing of Air Construction Permit Application 0570005-020-AC and Title V Permit Revision/Renewal 0570005-017-AV.
11. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify the Compliance Authority as soon as possible, but at least within one working day, excluding weekends and

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

- holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
12. Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All plant operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]
 13. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without the applicable air control device operating properly. [Rule 62-210.650, F.A.C.]
 14. Unconfined Particulate Matter Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]
 15. Test Notification: The permittee shall notify the Compliance Authority in writing at least 30 days prior to any initial performance tests and at least 15 days prior to any other required tests. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and conducting the test. [Rule 62-297.310(7)(a)9., F.A.C. and 40 CFR 60.7, 60.8]
 16. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
 17. Applicable Test Procedures
 - a. Required Sampling Time. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be sixty (60) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur. [Rule 62-297.310(4)(a)1. and 2., F.A.C.]
 - b. Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet. [Rule 62-297.310(4)(b), F.A.C.]
 - c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C. [Rule 62-297.310(4)(d), F.A.C.]
 18. Determination of Process Variables
 - a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. [Rule 62-297.310(5)(a), F.A.C.]
 - b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5)(b), F.A.C.]

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

19. Special Compliance Tests: When the Department, or EPC, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
20. Stack Testing Facilities: Required stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C. [Rule 62-297.310]
21. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2)(b), F.A.C.]
22. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department, or EPC, upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2., F.A.C.]
23. Emissions Performance Test Results Reports: A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]
24. Annual Operating Reports: The permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports shall be sent to the Environmental Protection Commission of Hillsborough County by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

The following specific conditions established in the initial Title V Air Operation Permit, 0570005-007-AV; the previous Title V Air Operation Permit Revision, 0570005-013-AV; and previous underlying construction permits, including Air Construction Permit, AC29-190635, AC29-190636, AC29-190637, AC29-200648, 0570005-003-AC, 0570004-AC, and 0570005-018-AC; are amended or revised as follows. Additions are **highlighted**, and deletions are shown by **strikethroughs**:

For Sulfuric Acid Plants "A", "B", "C", and "D":

B.3. Maximum allowable emission rates are as follows:

Sulfur Dioxide	3-hour rolling average based on CEMS data*	Consecutive 12-month rolling average based on CEMS data* or annual stack test
Plant "A"	5.6 lbs/ton of 100% H ₂ SO ₄ ; {equivalent to 303.3 lb/hr for 1300 tpd of 100% H ₂ SO ₄ }	4.23 lbs/ton of 100% H ₂ SO ₄ {equivalent to 229 lbs/hr for 1300 tpd of 100% H ₂ SO ₄ and 1003 tons/yr for 1300 tpd of 100% H ₂ SO ₄ }
Plant "B"	5.6 lbs/ton of 100% H ₂ SO ₄ ; {equivalent to 303.3 lb/hr for 1300 tpd of 100% H ₂ SO ₄ }	4.23 lbs/ton of 100% H ₂ SO ₄ {equivalent to 229 lbs/hr for 1300 tpd of 100% H ₂ SO ₄ and 1003 tons/yr for 1300 tpd of 100% H ₂ SO ₄ }
Plant "C"	3.5 lbs/ton of 100% H ₂ SO ₄ ; and 401 lb/hr	1757 tons/yr
Plant "D"	3.5 lbs/ton of 100% H ₂ SO ₄ ; and 401 lb/hr	1757 tons/yr

*As described in specific condition B.8.b.

	—Plant A	—Plant B	—Plant C	—Plant D
Sulfur Dioxide			4 lbs/ton of 100% H ₂ SO ₄	4 lbs/ton of 100% H ₂ SO ₄
	303.3 lbs/hr (each hour)	303.3 lbs/hr (each hour)	433 lbs/hr (each hour)	433 lbs/hr (each hour)
	238.3 lbs/hr (consecutive 12 mo. avg.)	238.3 lbs/hr (consecutive 12 mo. avg.)	—	—
	1,003 tons/yr (consecutive 12 mo. period)	1,003 tons/yr (consecutive 12 mo. period)	1898 tons/yr (consecutive 12 mo. period)	1898 tons/yr (consecutive 12 mo. period)

Pollutant	Plant A	Plant B	Plant C	Plant D
Sulfuric Acid Mist	0.3 lb/ton of 100% H ₂ SO ₄ produced	0.15 lb/ton of 100% H ₂ SO ₄ produced	0.105 lb/ton of 100% H ₂ SO ₄ produced*	0.105 lb/ton of 100% H ₂ SO ₄ produced*
	1.43 lbs/hr (each hour)	1.43 lbs/hr (each hour)	1 16.25 lbs/hr* (each hour)	1 16.25 lbs/hr* (each hour)
	0.83 lbs/hr (consecutive 12 mo. avg.)	0.83 lbs/hr (consecutive 12 mo. avg.)	--	--

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

	3.49 tons/yr (consecutive 12 mo. period)	3.49 tons/yr (consecutive 12 mo. period)	50 71.2 tons/yr (consecutive 12 mo. period)	50 71.2 tons/yr (consecutive 12 mo. period)
NO _x	--	--	0.124 lb/ton of 100% H ₂ SO ₄ produced	0.124 lb/ton of 100% H ₂ SO ₄ produced
	--	--	14 lb/hr	14 lb/hr
	--	--	60 tons/year	60 tons/year

*In stack testing

References:

[Plants "A" and "B": Rules 62-296.402(1)(b)(2) and 62-204.800(7)(b)10., F.A.C. and Air eConstruction pPermits AC29-200648, 0570005-005-AC (deleted NO_x limits and testing).]

[Plants "C" and "D": Permit AC29-186931/PSD-FL-155 ~~0570005-019-AC/ PSD-FL-339~~; and BACT determinations dated 7/16/91 and 6/1/04]

B.4. The permittee shall comply with the aAttacheded A, "Memorandum of Understanding Regarding Best Operation Start-up Practices for Sulfuric Acid Plants" memorandum signed on November 1, 1989. [Air Construction pPermits AC29-200648; and AC29-186931/PSD-FL-155; Applicant request]

B.5. This permit acknowledges that leaks of sulfur dioxide and sulfur trioxide or other fugitive process emissions that do not pass through a stack may occur as part of routine operations. Best operation practices to minimize these emissions shall be adhered to and shall include regular inspections and the prompt repair or correction of any leaks or other fugitive emissions.

[Air Construction Permits AC29-200648, and AC29-186931/PSD-FL-155; 0570005-019-AC/PSD-FL-339; Applicant request]

B.78.a. Compliance with the applicable emission limitations of Specific Condition No. B.3 shall be determined using EPA Methods 1, 2, 3, 4, 6C, ~~7E~~ 7 or 7A, 8 (for sulfuric acid mist), and 9 contained in 40 CFR 60, Appendix A and adopted by reference in Rule Chapter 62-297, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Rule Chapter 62-297, F.A.C. and 40 CFR 60, Appendix A.

[Rules 62-296.402(3) and 62-297, F.A.C., Air Construction permit 0570005-019-AC/PSD-FL-339]

b. A continuous emissions monitoring system (CEMS) shall be installed, calibrated, maintained, operated, and used to determine compliance with the 3-hour rolling average emissions limit for SO₂. The CEMS shall be installed and certified before the initial performance test and operated in compliance with 40 CFR 60, Appendix F, Quality Assurance Procedures (2001 version) or other Department-approved QA plan; 40 CFR 60, Appendix B, Performance Specification 2, (2001 version).

The CEMS shall calculate and record emission rates in units of pounds SO₂ per ton of 100 percent sulfuric acid produced. Each operating day, the rolling averages of the SO₂ emission rate for the 3 hours shall be calculated and recorded. Emissions shall be calculated in units of pounds of SO₂ per ton of 100 percent acid produced using one of the methods specified in 40 CFR 60.84. Averages are to be calculated as the arithmetic mean of each monitored operating hour in which sulfur is burned in the unit and at least two emission measurements are recorded at least 15 minutes apart. Data taken during periods of startup, or when sulfur is not burned in the unit, or when the CEMS is out of control as defined in 40 CFR 60, Appendix F, Section 5.2, shall be excluded from the 3-hour rolling averages. Data recorded during periods of shutdown, malfunction, load change, and continuous operating periods shall be included in the calculation of the 3-hour rolling averages.

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

To the extent the monitoring system is available to record emissions data, the CEMS shall be operated and shall record data at all operating hours when sulfur is burned in the unit, including periods of startup, shutdown, load change, continuous operation and malfunction. Monitor downtimes and excess emissions based on 3-hour averages, which include startup emissions, shall be reported on a quarterly basis using the SUMMARY REPORT in 40 CFR 60.7. A detailed report of the cause, duration, magnitude, and corrective action taken or preventative measures adopted for each excess emission occurrence, and a listing of monitor downtime occurrences shall accompany the SUMMARY REPORT when the total duration of excess emissions is 1% or greater or if the monitoring system downtime is 5% greater of the total monitored operating hours.

The monitoring device shall meet the applicable requirements of Chapter 62-204, F.A.C., 40 CFR 60, Appendix F, and 40 CFR 60.13, including certification of each CEMS in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) Notification Requirements. Data on monitoring equipment specifications, manufacturer, type calibration and maintenance requirements, and the proposed location of each stack probe shall be provided to the Department for review at least 30 days prior to installation of a new CEMS.

[Rules 62-4.070(3), F.A.C. and 62-204.800, F.A.C.; Permits 0570005-019-AC/PSD-FL-339; Applicant request]

B.109. A continuous emission monitoring system (CEMS) to determine sulfur dioxide emissions from this source shall be operated, calibrated, and maintained in accordance with Rule 62-296.402(4), F.A.C. The Permittee shall use the equation cited in 40 CFR 60.84(d) establish a conversion factor for the purpose of converting CEM data into pounds of SO₂ per ton of 100% sulfuric acid produced. [40 CFR 60.84 and Rule 62-296.402(4), F.A.C., and Air Construction permit AC29-200648]

B.132. A CEMS is used to determine compliance with the sulfur dioxide emission limits in Condition B.3. However, in order to aid in emissions inventory calculations document ongoing compliance with the emission limitations of Condition B.3, the permittee shall maintain monthly records of sulfur dioxide (SO₂) emissions. The records shall include the following for each day of the month:

- A. daily acid production (in tons as 100% H₂SO₄);
- B. hours operated;
- C. daily average pounds/hour SO₂ emission rate (lbs. SO₂/ton H₂SO₄);
- D. maximum pounds/hour SO₂ emission rate (for any hour);
- D.E. maximum pounds/hour 3-hr. average SO₂ emission rate for the month;
- E.F. a calculation of the monthly average SO₂ emission rate in pounds/ton of 100% H₂SO₄ produced;
- G. a calculation of the average pounds/hour SO₂ emission rate for the last 12 consecutive month period;
- F.H. a calculation of the SO₂ emissions in tons/last 12 consecutive month period.

The monthly records shall also show the sulfur dioxide emission limits from in Condition B.3.

[Rule 62-4.070(3), F.A.C., Air eConstruction permit AC29-200648, and Appendix 1 to permittee letter of November 16, 1993 submitted as a supplement to permit application]

B.15. At all times that SAPs A and B are in operation, the two stage scrubbers shall be in service and operating properly. The pH of the scrubber liquor in the upper stage shall not fall below a pH of 4.5. [Rules 62-210.650 and 62-4.070(3), F.A.C., and construction permit AC29-200648]

B.17. The permittee shall monitor the following scrubber operating parameters during each test run in any compliance test and include the information with all test reports.

- A. volumetric flow of liquor in the upper stage of the scrubber (gallons/minute);

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

- ~~B. ammonia feed rate to the scrubber (gallons/minute);~~
 - ~~C. pH of the scrubber liquor in the upper stage of the scrubber;~~
 - ~~D. gas pressure drop across the entire scrubber (inches H₂O);~~
- [Rule 62-4.070(3), F.A.C., and construction permit AC29-200648]

The scrubber operating parameters should not drop below 90% of the most recent compliance test values:

- ~~(a) Volumetric flow of liquor in the upper stage of scrubber (gpm);~~
- ~~(b) Ammonia feed rate to scrubber (gpm);~~
- ~~(c) pH of liquor in the upper stage of scrubber, and~~
- ~~(d) Gas pressure drop across the entire scrubber (inches H₂O).~~

Note: Reference Section II, Condition No. 10.

~~Sulfuric Acid Plant B is subject to 40 CFR 60.80-85 as they apply to emissions of sulfuric acid mist only.~~

~~**B.18.** The permittee shall create and keep a scrubber operations record log for the upper stage of the scrubber, documenting the scrubber operating parameters itemized in Condition B.17. A record log entry shall be made at least once for every 12-hour shift that the plant operates. In addition to the scrubber operating parameters, the record log shall contain the date and time of the measurements, and the person responsible for performing the measurements.~~

[Rule 62-4.070(3), F.A.C. and construction permit AC29-200648]

~~**B.18.** SAPs "A" and "B" shall comply with Attachment B, "Sulfuric Acid Mist Emissions Prevention Plan."~~

~~[Consent Order (EPC Case #: 00-0126CCG005) and Applicant request]~~

For "A" and "B" Phosphoric Acid Plants:

~~C.9. The permittee shall maintain and operate a monitoring device, which continuously measures the fan amperes. [Air Construction Permit 0570005-009-AC]~~

For "X", "Y", and "Z" DAP/MAP Plants:

~~E.9. The permittee shall record the following operational parameters and make them available to the Department or the Environmental Protection Commission of Hillsborough County (EPCHC) upon request:~~

- ~~a. Strained pond water to the reactor fume scrubbers, dryer fume scrubbers, and cooler scrubber shall not be lower than 450 psig for each scrubber. The pressure shall be recorded hourly.~~
- ~~b. The pressure drop across each scrubber shall not be less than:~~

<u>Scrubber</u>	<u>Pressure Drop</u>
Dust	15.3 inches
Reactor Fume	18.0 inches
Dryer Fume	18.0 inches
Cooler	3.6 inches

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

~~The permittee shall operate and maintain on each of the four scrubber units a monitoring device which continuously measures and permanently records the total pressure drop across the scrubber (See Condition E.12).~~

~~c. The Ducon abatement scrubber liquid spray pump shall be operated at a minimum pressure of 18 psig. The pressure shall be recorded hourly.~~

~~d. The pH of the scrubbing liquid for the abatement scrubber shall not fall below 4.9. The pH shall be continuously monitored and recorded.~~

~~[Air Construction Permits 0570005-004 AC and 0570005-018 AC]~~

For "A" and "B" Storage Buildings:

~~F.1. Capacity. The maximum input to the storage buildings shall not exceed 382 tons/hr and 3,346,320 tons/year, the maximum production rates of MAP/DAP/GTSP from the "X", "Y", "Z", and "A" trains. [Rules 62-4.160(2), F.A.C. and Rule 62-210.200, F.A.C., Definitions - (PTE); Applicant request]~~

~~F.2. Coating oils shall be applied to the MAP/DAP to prevent fugitive emissions of particulate matter. [Rules 62-4.070(3) and 62-296.700(2), F.A.C., Applicant request]~~

For Rock Unloading and Storage:

~~I.1. Capacity. The permitted dry rock transfer rate for this system shall not exceed 100 tons per hour. [Air Construction permit 0570005-003 AC, Rule 62-4.160(2), F.A.C. and Rule 62-210.200, F.A.C., Definitions - (PTE)]~~

~~I.2. The maximum allowable particulate matter emission rate from the two storage silos baghouse exhaust shall not exceed 3.08 pounds per hour, and shall not exceed 13.49 tons per year. [Air Construction permit AC29-190636, and Rule 62-296.700(2)(b), F.A.C.]~~

~~I.3. Visible emissions from the two storage silos baghouse exhaust shall not exceed 5% opacity. [AC29-190636]~~

For Product Reclaim Handling System:

~~J.2. Hours of Operation. The hours of operation for this emissions unit shall not exceed 1,664 hours/year. [Construction Permit AC29-190637, Rule 62-4.160(2), F.A.C. and Rule 62-210.200, F.A.C., Definitions - (PTE)]~~

~~J.3. The maximum allowable particulate matter emission rate from the hopper enclosure baghouse exhaust shall not exceed 2.13 pounds per hour, and shall not exceed 1.77 tons per year. Construction Permit AC29-190637, requested by applicant, and Rule 62-296.700(2)(b), F.A.C.]~~

~~J.4. Visible emissions from the hopper enclosure baghouse exhaust shall not exceed 5% opacity. [Construction Permit AC29-190637]~~



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

PERMITTEE:

CF Industries, Inc.
Plant City Phosphate Complex
PO Box Drawer L
Plant City, Florida 33565

Permit No.	0570005-020-AC
Project:	Removal of obsolete conditions and addition of clarifying conditions
SIC:	2874
Expires:	January 6, 2006

Authorized Representative:

Herschel E. Morris, General Manager
Vice President Phosphate Operations
Plant City Phosphate Complex

PROJECT AND LOCATION:

This air construction permit is to establish the deletion of obsolete conditions and the addition of clarifying conditions as applicable to the Title V Operation Permit.

The CF Industries, Inc. Plant City Phosphate Complex is located at 10608 Paul Buchman Highway, Plant City, Hillsborough County. UTM coordinates are Zone 17; 338 km E; 3116 km N.

STATEMENT OF BASIS:

This air construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to construct/operate the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices made a part of this permit:

Appendix GC Construction Permit General Conditions

Michael G. Cooke, Director
Division of Air Resource
Management

"More Protection, Less Process"

Printed on recycled paper.

SECTION I. GENERAL INFORMATION

FACILITY DESCRIPTION

This facility consists of a phosphate fertilizer manufacturing facility producing sulfuric acid, phosphoric acid, DAP (diammonium phosphate), and MAP (monoammonium phosphate).

EMISSIONS UNITS

This permit revision addresses the following emissions units. Emission Units shown as stricken through are no longer permitted.

EMISSION UNIT No.	EMISSION UNIT DESCRIPTION
002	"A" Sulfuric Acid Plant
003	"B" Sulfuric Acid Plant
004	"A" Phosphoric Acid Plant
009	"B" Phosphoric Acid Plant
010	"A" DAP/MAP Plant
011	"Z" DAP/MAP Plant
012	"X" DAP/MAP/GTSP Plant
013	"Y" DAP/MAP/GTSP Plant
014	"A" and "B" Storage Buildings
015	"A" Shipping Baghouse
018	"B" Shipping Baghouse
019	"B" Truck Loading
020	"B" Railcar Loading
025	Rock Unloading and Storage
026	Product Reclaim Handling System
027, 028, 029	"X, Y, Z" Rock Bins
032	Phosphoric Acid Cleanup
034	Clay Unloading Bin

REGULATORY CLASSIFICATION

Because potential emissions of at least one regulated pollutant exceed 100 tons per year, the existing facility is a Title V Source and major source of air pollution in accordance with Chapter 62-213, F.A.C. Regulated pollutants include pollutants such as nitrogen oxides (NO_x), particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), and sulfuric acid mist (SAM).

In addition, the Department has determined that this facility is a major source of hazardous air pollutants (HAPs), based upon its estimation of emissions of hydrogen fluoride. If additional testing and modeling demonstrate: (1) that the facility is not and has never been a major source of hazardous air pollutants since at least June 10, 2002, or (2) if prospective changes to Subparts AA and BB warrant such an outcome, the permittee shall have the right to request that the Department revise the determination of major source status and revise this permit to remove all requirements and conditions based on 40 CFR Part 63.

RELEVANT DOCUMENTS

Construction Permit Application 0570005-020-AC received September 2, 2004, including request for concurrent processing of Title V Air Operation Permit Revision. The Title V Air Operation Permit Revision will be incorporated into the Title V Air Operation Permit Revision/Renewal project 0570005-017-AV.

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1. Permitting Authority:
 - a. For this permit, the permitting authority is the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, and phone number (850)488-0114.
 - b. For future permitting actions, all documents related to applications for permits to construct or modify an emissions unit should be submitted to the Florida Department of Environmental Protection (FDEP), Southwest District, 3804 Coconut Palm Drive, Tampa, FL 33619 and phone number (813)744-6100.
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4. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
5. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]
6. Modifications: The permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and the anticipated completion date of the change. [Chapters 62-210 and 62-212, F.A.C.]
7. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
8. Completion of Construction: The permit expiration date is January 6, 2006.
9. Permit Expiration Date Extension: The permittee, for good cause, may request that this permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rule 62-4.080, F.A.C.]
10. Application for Title V Permit Revision: Concurrent processing of Air Construction Permit Application 0570005-020-AC and Title V Permit Revision/Renewal 0570005-017-AV.
11. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify the Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]

12. Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All plant operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]
13. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without the applicable air control device operating properly. [Rule 62-210.650, F.A.C.]
14. Unconfined Particulate Matter Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]
15. Test Notification: The permittee shall notify the Compliance Authority in writing at least 30 days prior to any initial performance tests and at least 15 days prior to any other required tests. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and conducting the test. [Rule 62-297.310(7)(a)9., F.A.C. and 40 CFR 60.7, 60.8]
16. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
17. Applicable Test Procedures
 - a. Required Sampling Time. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be sixty (60) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur. [Rule 62-297.310(4)(a)1. and 2., F.A.C.]
 - b. Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet. [Rule 62-297.310(4)(b), F.A.C.]
 - c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C. [Rule 62-297.310(4)(d), F.A.C.]
18. Determination of Process Variables
 - a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. [Rule 62-297.310(5)(a), F.A.C.]
 - b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5)(b), F.A.C.]

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

19. Special Compliance Tests: When the Department, or EPC, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
20. Stack Testing Facilities: Required stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C. [Rule 62-297.310]
21. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2)(b), F.A.C.]
22. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department, or EPC, upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2., F.A.C.]
23. Emissions Performance Test Results Reports: A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]
24. Annual Operating Reports: The permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports shall be sent to the Environmental Protection Commission of Hillsborough County by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

The following specific conditions established in the initial Title V Air Operation Permit, 0570005-007-AV; the previous Title V Air Operation Permit Revision, 0570005-013-AV; and previous underlying construction permits, including Air Construction Permit, AC29-190635, AC29-190636, AC29-190637, AC29-200648, 0570005-003-AC, 0570004-AC, and 0570005-018-AC; are amended or revised as follows. Additions are highlighted, and deletions are shown by strikethroughs:

For Sulfuric Acid Plants "A", "B", "C", and "D":

B.3. Maximum allowable emission rates are as follows:

Sulfur Dioxide	3-hour rolling average based on CEMS data*	Consecutive 12-month rolling average based on CEMS data* or annual stack test
Plant "A"	5.6 lbs/ton of 100% H ₂ SO ₄ ; {equivalent to 303.3 lb/hr for 1300 tpd of 100% H ₂ SO ₄ }	4.23 lbs/ton of 100% H ₂ SO ₄ {equivalent to 229 lbs/hr for 1300 tpd of 100% H ₂ SO ₄ and 1003 tons/yr for 1300 tpd of 100% H ₂ SO ₄ }
Plant "B"	5.6 lbs/ton of 100% H ₂ SO ₄ ; {equivalent to 303.3 lb/hr for 1300 tpd of 100% H ₂ SO ₄ }	4.23 lbs/ton of 100% H ₂ SO ₄ {equivalent to 229 lbs/hr for 1300 tpd of 100% H ₂ SO ₄ and 1003 tons/yr for 1300 tpd of 100% H ₂ SO ₄ }
Plant "C"	3.5 lbs/ton of 100% H ₂ SO ₄ ; and 401 lb/hr	1757 tons/yr
Plant "D"	3.5 lbs/ton of 100% H ₂ SO ₄ ; and 401 lb/hr	1757 tons/yr

*As described in specific condition B.8.b.

	—Plant A	—Plant B	—Plant C	—Plant D
Sulfur Dioxide			4 lbs/ton of 100% H ₂ SO ₄	4 lbs/ton of 100% H ₂ SO ₄
	303.3 lbs/hr (each hour)	303.3 lbs/hr (each hour)	433 lbs/hr (each hour)	433 lbs/hr (each hour)
	238.3 lbs/hr (consecutive 12 mo. avg.)	238.3 lbs/hr (consecutive 12 mo. avg.)	—	—
	1,003 tons/yr (consecutive 12 mo. period)	1,003 tons/yr (consecutive 12 mo. period)	1898 tons/yr (consecutive 12 mo. period)	1898 tons/yr (consecutive 12 mo. period)

Pollutant	Plant A	Plant B	Plant C	Plant D
Sulfuric Acid Mist	0.3 lb/ton of 100% H ₂ SO ₄ produced	0.15 lb/ton of 100% H ₂ SO ₄ produced	0.105 lb/ton of 100% H ₂ SO ₄ produced*	0.105 lb/ton of 100% H ₂ SO ₄ produced*
	1.43 lbs/hr (each hour)	1.43 lbs/hr (each hour)	11 ±6.25 lbs/hr* (each hour)	11 ±6.25 lbs/hr* (each hour)
	0.83 lbs/hr (consecutive 12 mo. avg.)	0.83 lbs/hr (consecutive 12 mo. avg.)	--	--

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

	3.49 tons/yr (consecutive 12 mo. period)	3.49 tons/yr (consecutive 12 mo. period)	50 71.2 tons/yr (consecutive 12 mo. period)	50 71.2 tons/yr (consecutive 12 mo. period)
NO _x	--	--	0.124 lb/ton of 100% H ₂ SO ₄ produced	0.124 lb/ton of 100% H ₂ SO ₄ produced
	--	--	14 lb/hr	14 lb/hr
	--	--	60 tons/year	60 tons/year
*In stack testing				

References:

[Plants "A" and "B": Rules 62-296.402(1)(b)(2) and 62-204.800(7)(b)10., F.A.C. and Air Construction Permits AC29-200648, 0570005-005-AC (deleted NO_x limits and testing).]
 [Plants "C" and "D": Permit ~~AC29-186931/PSD-FL-155~~ 0570005-019-AC/ PSD-FL-339; and BACT determinations dated 7/16/91 and 6/1/04]

B.4. The permittee shall comply with the aAttacheded A, "Memorandum of Understanding Regarding Best Operation Start-up Practices for Sulfuric Acid Plants" memorandum signed on November 1, 1989. [Air Construction pPermits AC29-200648; and AC29-186931/PSD-FL-155; Applicant request]

B.5. This permit acknowledges that leaks of sulfur dioxide and sulfur trioxide or other fugitive process emissions that do not pass through a stack may occur as part of routine operations. Best operation practices to minimize these emissions shall be adhered to and shall include regular inspections and the prompt repair or correction of any leaks or other fugitive emissions. [Air Construction Permits AC29-200648, and AC29-186931/PSD-FL-155; 0570005-019-AC/PSD-FL-339; Applicant request]

B.78.a. Compliance with the applicable emission limitations of Specific Condition No. **B.3** shall be determined using EPA Methods 1, 2, 3, 4, 6C, 7E ~~7~~ 7A, 8 (for sulfuric acid mist), and 9 contained in 40 CFR 60, Appendix A and adopted by reference in Rule Chapter 62-297, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Rule Chapter 62-297, F.A.C. and 40 CFR 60, Appendix A. [Rules 62-296.402(3) and 62-297, F.A.C., Air Construction permit 0570005-019-AC/PSD-FL-339]

b. A continuous emissions monitoring system (CEMS) shall be installed, calibrated, maintained, operated, and used to determine compliance with the 3-hour rolling average emissions limit for SO₂. The CEMS shall be installed and certified before the initial performance test and operated in compliance with 40 CFR 60, Appendix F, Quality Assurance Procedures (2001 version) or other Department-approved QA plan; 40 CFR 60, Appendix B, Performance Specification 2 (2001 version).

The CEMS shall calculate and record emission rates in units of pounds SO₂ per ton of 100 percent sulfuric acid produced. Each operating day, the rolling averages of the SO₂ emission rate for the 3 hours shall be calculated and recorded. Emissions shall be calculated in units of pounds of SO₂ per ton of 100 percent acid produced using one of the methods specified in 40 CFR 60.84. Averages are to be calculated as the arithmetic mean of each monitored operating hour in which sulfur is burned in the unit and at least two emission measurements are recorded at least 15 minutes apart. Data taken during periods of startup, or when sulfur is not burned in the unit, or when the CEMS is out of control as defined in 40 CFR 60, Appendix F, Section 5.2, shall be excluded from the 3-hour rolling averages. Data recorded during periods of shutdown, malfunction, load change, and continuous operating periods shall be included in the calculation of the 3-hour rolling averages.

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

To the extent the monitoring system is available to record emissions data, the CEMS shall be operated and shall record data at all operating hours when sulfur is burned in the unit, including periods of startup, shutdown, load change, continuous operation and malfunction. Monitor downtimes and excess emissions based on 3-hour averages, which include startup emissions, shall be reported on a quarterly basis using the SUMMARY REPORT in 40 CFR 60.7. A detailed report of the cause, duration, magnitude, and corrective action taken or preventative measures adopted for each excess emission occurrence, and a listing of monitor downtime occurrences shall accompany the SUMMARY REPORT when the total duration of excess emissions is 1% or greater or if the monitoring system downtime is 5% greater of the total monitored operating hours.

The monitoring device shall meet the applicable requirements of Chapter 62-204, F.A.C., 40 CFR 60, Appendix F, and 40 CFR 60.13, including certification of each CEMS in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) Notification Requirements. Data on monitoring equipment specifications, manufacturer, type calibration and maintenance requirements, and the proposed location of each stack probe shall be provided to the Department for review at least 30 days prior to installation of a new CEMS.

[Rules 62-4.070(3), F.A.C. and 62-204.800, F.A.C.; Permits 0570005-019-AC/PSD-FL-339; Applicant request]

B.109. A continuous emission monitoring system (CEMS) to determine sulfur dioxide emissions from this source shall be operated, calibrated, and maintained in accordance with Rule 62-296.402(4), F.A.C. The Permittee shall use the equation cited in 40 CFR 60.84(d) ~~establish a conversion factor for the purpose of~~ converting CEM data into pounds of SO₂ per ton of 100% sulfuric acid produced. [40 CFR 60.84 and Rule 62-296.402(4), F.A.C., and Air Construction Permit AC29-200648]

B.132. A CEMS is used to determine compliance with the sulfur dioxide emission limits in Condition **B.3**. However, ~~in order to aid in emissions inventory calculations document ongoing compliance with the emission limitations of Condition B.3,~~ the permittee shall maintain monthly records of sulfur dioxide (SO₂) emissions. The records shall include the following for each day of the month:

- A. daily production (in tons as 100% H₂SO₄);
- B. hours operated;
- C. daily average pounds/hour SO₂ emission rate (lbs.SO₂/ton H₂SO₄);
- ~~D. maximum pounds/hour SO₂ emission rate (for any hour);~~
- ~~D.E. maximum pounds/hour 3-hr. average SO₂ emission rate for the month;~~
- ~~E.F. a calculation of the monthly average SO₂ emission rate in pounds/ton of 100% H₂SO₄ produced;~~
- ~~G. a calculation of the average pounds/hour SO₂ emission rate for the last 12 consecutive month period;~~
- F.H. a calculation of the SO₂ emissions in tons/last 12 consecutive month period.

The monthly records shall also show the sulfur dioxide emission limits ~~from~~ in Condition **B.3**.

[Rule 62-4.070(3), F.A.C., Air Construction Permit AC29-200648, and Appendix 1 to permittee letter of November 16, 1993 submitted as a supplement to permit application]

~~**B.15.** At all times that SAPs A and B are in operation, the two stage scrubbers shall be in service and operating properly. The pH of the scrubber liquor in the upper stage shall not fall below a pH of 4.5. [Rules 62-210.650 and 62-4.070(3), F.A.C., and construction permit AC29-200648]~~

~~**B.17.** The permittee shall monitor the following scrubber operating parameters during each test run in any compliance test and include the information with all test reports.~~

- ~~A. volumetric flow of liquor in the upper stage of the scrubber (gallons/minute);~~

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

- ~~— B. — ammonia feed rate to the scrubber (gallons/minute);~~
 - ~~— C. — pH of the scrubber liquor in the upper stage of the scrubber;~~
 - ~~— D. — gas pressure drop across the entire scrubber (inches H₂O);~~
- [Rule 62 4.070(3), F.A.C., and construction permit AC29-200648]

~~The scrubber operating parameters should not drop below 90% of the most recent compliance test values:~~

- ~~(a) — Volumetric flow of liquor in the upper stage of scrubber (gpm);~~
- ~~(b) — Ammonia feed rate to scrubber (gpm);~~
- ~~(c) — pH of liquor in the upper stage of scrubber, and~~
- ~~(d) — Gas pressure drop across the entire scrubber (inches H₂O).~~

Note: Reference Section II, Condition No. 10.

~~— Sulfuric Acid Plant B is subject to 40 CFR 60.80-85 as they apply to emissions of sulfuric acid mist only.~~

~~B.18. The permittee shall create and keep a scrubber operations record log for the upper stage of the scrubber, documenting the scrubber operating parameters itemized in Condition B.17. A record log entry shall be made at least once for every 12 hour shift that the plant operates. In addition to the scrubber operating parameters, the record log shall contain the date and time of the measurements, and the person responsible for performing the measurements.~~

[Rule 62 4.070(3), F.A.C. and construction permit AC29-200648]

B.18. SAPs "A" and "B" shall comply with Attachment B, "Sulfuric Acid Mist Emissions Prevention Plan".

[Consent Order (EPC Case #: 00-0126CCG005); and Applicant request]

For "A" and "B" Phosphoric Acid Plants:

~~C.9. The permittee shall maintain and operate a monitoring device, which continuously measures the fan amperes. [Air Construction Permit 0570005-009 AC]~~

For "X", "Y", and "Z" DAP/MAP Plants:

~~E.9. The permittee shall record the following operational parameters and make them available to the Department or the Environmental Protection Commission of Hillsborough County (EPCHC) upon request.:~~

- ~~— a. — Strained pond water to the reactor fume scrubbers, dryer fume scrubbers, and cooler scrubber shall not be lower than 450 psig for each scrubber. The pressure shall be recorded hourly.~~
- ~~— b. — The pressure drop across each scrubber shall not be less than:~~

<u>Scrubber</u>	<u>Pressure Drop</u>
Dust	15.3 inches
Reactor Fume	18.0 inches
Dryer Fume	18.0 inches
Cooler	3.6 inches

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

~~The permittee shall operate and maintain on each of the four scrubber units a monitoring device which continuously measures and permanently records the total pressure drop across the scrubber (See Condition E.12).~~

~~e. The Ducon abatement scrubber liquid spray pump shall be operated at a minimum pressure of 18 psig. The pressure shall be recorded hourly.~~

~~d. The pH of the scrubbing liquid for the abatement scrubber shall not fall below 4.9. The pH shall be continuously monitored and recorded.~~

~~[Air Construction Permits 0570005-004-AC and 0570005-018-AC]~~

For "A" and "B" Storage Buildings:

F.1. Capacity. The maximum input to the storage buildings shall not exceed 382 tons/hr and 3,346,320 tons/year, the maximum production rates of MAP/DAP/GTSP from the "X", "Y", "Z", and "A" trains.
[Rules 62-4.160(2), F.A.C. and Rule 62-210.200, F.A.C., Definitions - (PTE); Applicant request]

F.2. Coating oils shall be applied to the MAP/DAP to prevent fugitive emissions of particulate matter.
[Rules 62-4.070(3) and 62.296.700(2), F.A.C.; Applicant request]

For Rock Unloading and Storage:

I.1. Capacity. The permitted dry rock transfer rate for this system shall not exceed 100 tons per hour.
[~~Air Construction pPermit 0570005-003-AC, Rule 62-4.160(2), F.A.C. and Rule 62-210.200, F.A.C., Definitions - (PTE)~~]

I.2. The maximum allowable particulate matter emission rate from the two storage silos baghouse exhaust shall not exceed 3.08 pounds per hour, and shall not exceed 13.49 tons per year.
[~~Air Construction pPermit AC29-190636, and Rule 62-296.700(2)(b), F.A.C.~~]

I.3. Visible emissions from the two storage silos baghouse exhaust shall not exceed 5% opacity.
[~~AC29-190636~~]

For Product Reclaim Handling System:

J.2. Hours of Operation. The hours of operation for this emissions unit shall not exceed 1,664 hours/year.
[~~Construction Permit AC29-190637, Rule 62-4.160(2), F.A.C. and Rule 62-210.200, F.A.C., Definitions - (PTE)~~]

J.3. The maximum allowable particulate matter emission rate from the hopper enclosure baghouse exhaust shall not exceed 2.13 pounds per hour, and shall not exceed 1.77 tons per year
[~~Construction Permit AC29-190637, requested by applicant, and Rule 62-296.700(2)(b), F.A.C.~~]

J.4. Visible emissions from the hopper enclosure baghouse exhaust shall not exceed 5% opacity.
[~~Construction Permit AC29-190637~~]

For "X", "Y", and "Z" Rock Bins:

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

~~K.2. The maximum allowable particulate matter emission rate from each storage bin baghouse exhaust shall not exceed 0.47 pounds per hour, and shall not exceed 2.06 tons per year.~~

~~[Construction Permit AC29-190635, requested by applicant, and Rule 62-296.700(2)(b), F.A.C.]~~

~~K.3. Visible emissions from each storage bin baghouse exhaust shall not exceed 5% opacity~~

~~[Construction Permit AC29-190637]~~

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1.0 APPLICATION INFORMATION

1.1 Applicant Name and Address

CF Industries, Inc.
Plant City Phosphate Complex
PO Drawer L
Plant City, Florida 33565

Representative:
Mr. Herschel E. Morris
Vice President Phosphate Operation/General Manager
Plant City Phosphate Complex

1.2 Reviewing and Process Schedule

09-02-04: Date of receipt of request at FDEP Bureau of Air Regulation
09-02-04: Application complete
01-xx-05: Issued intent

2.0 FACILITY INFORMATION

2.1 Facility Location: Plant City Phosphate Complex located at 10608 Paul Buchman Highway, Plant City, Hillsborough County.

2.2 Standard Industrial Classification Code (SIC)

Major Group No.	28	Chemicals and Allied Products
Group No.	287	Agricultural Chemicals
Industry No.	2874	Phosphatic Fertilizers

2.3 Existing Facility/Emission Unit Description

This facility is a phosphate fertilizer manufacturing facility that produces sulfuric acid, phosphoric acid, DAP (diammonium phosphate), and MAP (monoammonium phosphate).

2.4 Regulatory Classification

The facility is classified as a major Title V source of air pollution because emissions of at least one regulated air pollutant, such as sulfur dioxide, exceed 100 tons per year.

3. PERMITTING STATUS

This facility is currently operating under Title V Operation Permit 0570005-013-AV. This Construction Permit 0570005-020-AC is being concurrently processed with Title V Operation Permit Revision/Renewal 0570005-017-AV.

4. PRESENT APPLICATION AND DEPARTMENT PROPOSED ACTIONS

CFI Industries, Inc., (CFI) has requested to establish the deletion of obsolete conditions and descriptions, and the addition of clarifying conditions, as applicable to the Title V Operation Permit. In particular, CFI has requested the following changes:

"A" and "B" Sulfuric Acid Plants (EUs 002 and 003)

CFI requests the removal of the requirements to monitor scrubbing operating parameters and the requirements to maintain minimum parameter values as contained in their current Title V permit. CFI requests to use sulfur dioxide SO₂ continuous emission monitoring systems (CEMS) for continuous compliance with the SO₂ emission limits for these emissions units. The monitoring protocol will be the same as that described in a recently issued air construction permit (0570005-

019-AC) for CFI Sulfuric Acid Plants “C” and “D”, and is not a relaxation of any federally enforceable limits. In addition, CFI requests to adhere to the “Sulfuric Acid Mist Emissions Prevention Plan” contained in Attachment B of the Title V Permit for both the “A” and “B” Sulfuric Acid Plants. The Department proposes to grant these requests as the monitoring will not be less stringent than what is currently permitted.

CFI also requests to remove the lb/hr and ton per year (TPY) emission limits for SO₂ and replace them with limits in terms of lb/ton 100% H₂SO₄. This will allow plant operators to more directly track emissions since the SO₂ CEMS provides data in terms of lb/ton. The Department proposes to add limits in terms of lb/ton 100% H₂SO₄ as the limits will not be less stringent than what is currently permitted. To aid in emissions inventory, the lb/hr and TPY emission limits will be left in the permit as permitting notes.

CFI requests to delete the requirement to establish a conversion factor for converting CEM data into pounds of SO₂ per ton of 100% sulfuric acid produced. They will use the alternative equation provided in 40 CFR 60.84(d) to calculate pounds of SO₂ per ton of 100% sulfuric acid produced. The Department proposes to grant this request.

“A” and “B” Phosphoric Acid Plants (EUs 004 and 009)

CFI requests that the monitoring requirements in the current Title V permit be replaced with the monitoring requirements of 40 CFR 63 Subpart AA. The Department proposes to make this requested change in the Title V Permit Revision that is being processed concurrently with this Air Construction Permit.

“A” DAP/MAP Plant (EU 010)

CFI requests that the monitoring requirements in the current Title V permit be replaced with the monitoring requirements of their EPA-approved Alternative Monitoring Plan. The Department proposes to make this requested change in the Title V Permit Revision that is being processed concurrently with this Air Construction Permit.

“Z” DAP/MAP Plant (EU 011)

CFI requests that the monitoring requirements in the current Title V permit be replaced with the monitoring requirements of their EPA-approved Alternative Monitoring Plan for total fluorides, and the monitoring requirements of the draft CAM Plan for particulate matter. The Department proposes to make these requested changes in the Title V Permit Revision that is being processed concurrently with this Air Construction Permit.

“X” and “Y” DAP/MAP Plants (EUs 012 and 013)

These fertilizer plants are currently permitted to produce DAP, MAP, or GTSP. CFI requests to delete the permitted production of GTSP at these plants. In addition, CFI requests that the monitoring requirements in the current Title V permit be replaced with the monitoring requirements of their EPA-approved Alternative Monitoring Plan for total fluorides, and the monitoring requirements of the draft CAM Plan for particulate matter. The Department proposes to make these requested changes in the Title V Permit Revision that is being processed concurrently with this Air Construction Permit.

“A” and “B” Storage Buildings

These storage buildings are currently permitted to store DAP, MAP, or GTSP. CFI requests to delete the storage of GTSP in these buildings and to delete the requirement to operate the air pollution control equipment for fluoride removal, since the scrubber is only required for GTSP production. In addition, it is requested that the particulate matter (PM) emission limit be removed, since with removal of the scrubber, there will be no point sources associated with the storage buildings. Since CFI uses coating oil on the fertilizer products to control PM emissions, and only

fugitive PM emissions inside the buildings will result from the operation, the Department proposes to make these requested changes.

"A" and "B" Shipping and Loading (EUS 015, 018, 019, 020)

These systems are currently permitted to handle DAP, MAP, or GTSP. CFI requests to delete the permitted handling of GTSP. The Department proposes to make this requested change in the Title V Permit Revision that is being processed concurrently with this Air Construction Permit.

Rock Unloading and Storage (EU 25)

CFI requests that this emission unit be deleted from the current Title V Permit since GTSP is no longer produced at the facility. The Department proposes to make this requested change.

Product Reclaim Handling System (EU 026)

CFI requests that this emission unit be deleted from the current Title V Permit since the unit is not operational. The Department proposes to make this requested change.

"X", "Y", and "Z" Rock Bins (EUs 027, 028, 029)

CFI requests that these emission units be deleted from the current Title V Permit since GTSP is no longer produced at the facility. The Department proposes to make these requested changes.

Phosphoric Acid Cleanup (EU 032)

CFI requests that this emission unit be revised to delete the use of clay in the cleanup system and the associated particulate matter emissions limits. In addition, CFI requests that the monitoring requirements for total fluorides in the current Title V permit be replaced with the monitoring requirements of the draft CAM Plan. The Department proposes to make these requested changes in the Title V Permit Revision that is being processed concurrently with this Air Construction Permit.

Clay Unloading Bin (EU 034)

CFI requests that this emission unit be deleted from the current Title V Permit since clay is no longer used at the facility. The Department proposes to make this requested change in the Title V Permit Revision that is being processed concurrently with this Air Construction Permit.

5. **CONCLUSION**

The amended and revised specific conditions agreed to by the Department provide reasonable assurance that there will be no significant increase in the representative actual annual emissions of any regulated pollutant.

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Mr. Herschel E. Morris, Vice President
 Phosphate Operations/General Manager
 CF Industries, Inc.
 Post Office Drawer L
 Plant City, Florida 33564

2. Article Number

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X *Herschel E. Morris* Agent Addressee

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Herschel E. Morris *10/25/01*

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PS Form 3811, August 2001

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PS Form 3800, January 2001

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