

# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF PERMIT

Mr. J.E. Parsons  
Central Phosphates, Inc.  
Post Office Drawer L  
Plant City, Florida 33566

May 31, 1988

Enclosed are permits Nos. AC 29-146176, -146177, -132155 and -132157, for Central Phosphates, Inc. to install cogeneration capability at their existing facility located in Plant City, Hillsborough County, Florida. These permits are issued pursuant to Section 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

*for* *C. H. Fancy*  
C. H. Fancy, P.E.

Deputy Chief

Bureau of Air Quality Management

Copy furnished to:

B. Thomas, DER  
I. Choronenko, HCEPC  
W. Arsonson, EPA  
M. Flores, NPS  
J. Koogler, P.E.  
P. Roberts, CPI

Final Determination

Central Phosphates, Inc.  
Plant City, Hillsborough County, Florida

Sulfuric Acid Plants

Permit Nos.

AC 29-146176, Plant A  
AC 29-146177, Plant B  
AC 29-132155, Plant C  
AC 29-132157, Plant D

PSD-FL-119

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

May 20, 1988

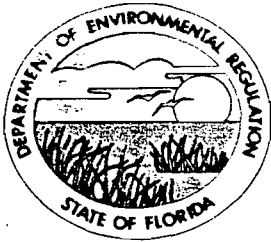
## Final Determination

Central Phosphate's application to install cogeneration capability while increasing the sulfuric acid production rates of the Plants A, B, C, and D at their existing facility in Hillsborough County, Florida, has been reviewed by the Department. Public Notice of the Department's Intent to Issue the permits was published in The Tampa Tribune on April 19, 1988.

Comments were received from the applicant, in response to the Public Notice, requesting an extension of the expiration date of the permits. The Department is in agreement with this comment.

The Department will also clarify Specific Condition No. 9 in the C and D permits, specifying compliance test methods.

The final action of the Department will be to issue the permits as proposed with an extended expiration date, and with an amended Specific Condition No. 9.



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Daic Twachtmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:	Permit Number: AC 29-146176
Central Phosphates, Inc.	Expiration Date: September 30, 1989
P. O. Drawer L	County: Hillsborough
Plant City, FL 33566	Latitude/Longitude: 28° 09' 59"N 82° 08' 27"W
	Project: Sulfuric Acid Plant A

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

For the permitting of the Sulfuric Acid Plant A, with a maximum production capacity of 1050 tons per day 100% acid. Sulfur dioxide and acid mist emissions will be controlled by an ammonia scrubber. The project is located at Central Phosphate's existing facility in Hillsborough County, Florida. The UTM coordinates are Zone 17, 388 km East and 3116 km North.

The Standard Industrial Classification (SIC) Code is Group 20, Chemical and Allied Products; Industry No. 2819, Sulfuric Acid Contact Process. The Source Classification Code (SCC) is 3-01-023-08, A and B Plants (98% Conversion).

Construction will be in accordance with the permit application, plans, documents, and reference materials submitted unless otherwise stated in the General and Specific Conditions.

#### Attachments:

1. Central Phosphates application package dated March 19, 1987.
2. John Koogler's letter dated April 17, 1987.
3. DER's letter of incompleteness dated April 22, 1987.
4. Department of Interior's letter dated May 1, 1987.
5. DER's letter dated May 15, 1987.
6. John Koogler's letter dated January 28, 1988.
7. Central Phosphates application package for A and B plants dated March 1, 1988.
8. John Koogler's letter dated March 8, 1988.
9. Preliminary Determination April 5, 1988.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-146176  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-146176  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-146176  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- ( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-146176  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the date(s) analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

**SPECIFIC CONDITIONS:**

For Sulfuric Acid Plant A

1. The Plant A may operate continuously, i.e., 8760 hours/year.
2. The maximum production rate shall not exceed 1050 TPD (tons per day) based on 100% H<sub>2</sub>SO<sub>4</sub>.



PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-146176  
Expiration Date: September 30, 1989

SPECIFIC CONDITIONS:

3. Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed:

- a) 8 lbs/ton of 100% H<sub>2</sub>SO<sub>4</sub> produced
- b) 350 lbs/hr
- c) 1533 TPY (tons/yr)

4. Sulfuric Acid Mist emissions shall not exceed:

- a) 0.2 lb/ton, 100% H<sub>2</sub>SO<sub>4</sub> produced
- b) 8.8 lbs/hr
- c) 38.3 TPY

5. Visible Emissions (VE) shall not exceed 10% opacity.

6. Nitrogen oxides (NO<sub>x</sub>) emissions are estimated to be 37.4 TPY based on a factor of  $2.1 \times 10^{-6}$  lb/dscf.

7. SO<sub>2</sub> and acid mist emissions shall be controlled by an ammonia scrubber.

8. The permittee shall comply with all the applicable provisions of Chapter 17-2 and 17-4 of the Florida Administrative Code (FAC).

9. A CEM shall be used to monitor SO<sub>2</sub>, in accordance with Rule 17-2.710, FAC. Initial and annual compliance tests shall be conducted using:

- a) EPA Method 8, for SO<sub>2</sub> and acid mist
- b) EPA Method 9, for visible emissions

10. The Hillsborough County Environmental Protection Commission (HCEPC) office shall be notified in writing 15 days prior to source testing. Written reports of the tests shall be submitted to the HCEPC office within 45 days of test completion.

The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, the Department and HCEPC must be notified in writing 60 days prior to the expiration of the construction permit and the permittee shall submit a new schedule and request for an extension of the construction permit (Rule 17-2, FAC).

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-146176  
Expiration Date: September 30, 1989

**SPECIFIC CONDITIONS:**

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with compliance test results, and the Certificate of Completion, to the HCEPC office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rules 17-2 and 17-4)

If the construction permit expires prior to the permittee filing an application for a permit to operate, then all activities at the project must cease. (FAC Rule 17-4)

11. Any change in the method of operation, raw materials and chemicals processed, equipment, or operating hours pursuant to FAC Rule 17-2.100(118), Modification, shall be submitted for approval to DER's Bureau of Air Quality Management office and HCEPC office.

12. When start-up involving more than one acid plant occurs, a second plant will not be started up until the first plant is started and in compliance. The permittee shall take all reasonable precautions to avoid violations of ambient air quality standards during plant start-ups.


13. This permit shall replace previous permits issued for Central Phosphate's Acid Plant A.

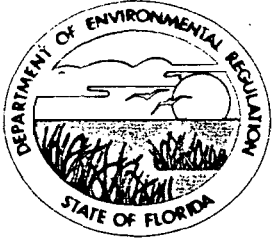
PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-146176  
Expiration Date: September 30, 1989

Issued this 25 day of May,  
1988.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Dale Twachtmann, Secretary



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

**PERMITTEE:**

Central Phosphates, Inc.  
P. O. Drawer L  
Plant City, FL 33566

Permit Number: AC 29-146177

Expiration Date: September 30, 1989

County: Hillsborough

Latitude/Longitude: 28° 09' 59"N  
82° 08' 27"W

Project: Sulfuric Acid Plant B

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

For the permitting of the Sulfuric Acid Plant B, with a maximum production capacity of 1050 tons per day 100% acid. Sulfur dioxide and acid mist emissions will be controlled by an ammonia scrubber. The project is located at Central Phosphate's existing facility in Hillsborough County, Florida. The UTM coordinates are Zone 17, 388 km East and 3116 km North.

The Standard Industrial Classification (SIC) Code is Group 20, Chemical and Allied Products; Industry No. 2819, Sulfuric Acid Contact Process. The Source Classification Code (SCC) is 3-01-023-08, A and B Plants (98% Conversion).

Construction will be in accordance with the permit application, plans, documents, and reference materials submitted unless otherwise stated in the General and Specific Conditions.

**Attachments:**

1. Central Phosphates application package dated March 19, 1987.
2. John Koogler's letter dated April 17, 1987.
3. DER's letter of incompleteness dated April 22, 1987.
4. Department of Interior's letter dated May 1, 1987.
5. DER's letter dated May 15, 1987.
6. John Koogler's letter dated January 28, 1988.
7. Central Phosphates application package for A and B plants dated March 1, 1988.
8. John Koogler's letter dated March 8, 1988.
9. Preliminary Determination dated April 5, 1988.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-146177  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-146177  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-146177  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- ( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-146177  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the date(s) analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

**SPECIFIC CONDITIONS:**

For Sulfuric Acid Plant B

1. The Plant B may operate continuously, i.e., 8760 hours/year.
2. The maximum production rate shall not exceed 1050 TPD (tons per day) based on 100% H<sub>2</sub>SO<sub>4</sub>.



PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-146177  
Expiration Date: September 30, 1989

SPECIFIC CONDITIONS:

3. Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed:

- a) 8 lbs/ton of 100% H<sub>2</sub>SO<sub>4</sub> produced
- b) 350 lbs/hr
- c) 1533 TPY (tons/yr)

4. Sulfuric Acid Mist emissions shall not exceed:

- a) 0.2 lb/ton, 100% H<sub>2</sub>SO<sub>4</sub> produced
- b) 8.8 lbs/hr
- c) 38.3 TPY

5. Visible Emissions (VE) shall not exceed 10% opacity.

6. Nitrogen oxides (NO<sub>x</sub>) emissions are estimated to be 37.4 TPY based on a factor of  $2.1 \times 10^{-6}$  lb/dscf.

7. SO<sub>2</sub> and acid mist emissions shall be controlled by an ammonia scrubber.

8. The permittee shall comply with all the applicable provisions of Chapter 17-2 and 17-4 of the Florida Administrative Code (FAC).

9. A CEM shall be used to monitor SO<sub>2</sub>, in accordance with Rule 17-2.710, FAC. Initial and annual compliance tests shall be conducted using:

- a) EPA Method 8, for SO<sub>2</sub> and acid mist
- b) EPA Method 9, for visible emissions

10. The Hillsborough County Environmental Protection Commission (HCEPC) office shall be notified in writing 15 days prior to source testing. Written reports of the tests shall be submitted to the HCEPC office within 45 days of test completion.

The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, the Department and HCEPC must be notified in writing 60 days prior to the expiration of the construction permit and the permittee shall submit a new schedule and request for an extension of the construction permit (Rule 17-2, FAC).

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-146177  
Expiration Date: September 30, 1989

**SPECIFIC CONDITIONS:**

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with compliance test results, and the Certificate of Completion, to the HCEPC office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rules 17-2 and 17-4)

If the construction permit expires prior to the permittee filing an application for a permit to operate, then all activities at the project must cease. (FAC Rule 17-4)

11. Any change in the method of operation, raw materials and chemicals processed, equipment, or operating hours pursuant to FAC Rule 17-2.100(118), Modification, shall be submitted for approval to DER's Bureau of Air Quality Management office and HCEPC office.

12. When start-up involving more than one acid plant occurs, a second plant will not be started up until the first plant is started and in compliance. The permittee shall take all reasonable precautions to avoid violations of ambient air quality standards during plant start-ups.

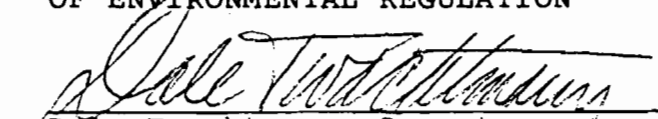
13. This permit shall replace previous permits issued for Central Phosphate's Acid Plant B.

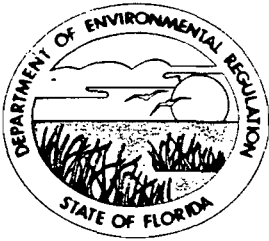
PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-146177  
Expiration Date: September 30, 1989

Issued this 25 day of May,  
1988.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Dale Twachtmann, Secretary



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:  
Central Phosphates, Inc.  
P. O. Drawer L  
Plant City, FL 33566

Permit Number: AC 29-132155  
Expiration Date: September 30, 1989  
County: Hillsborough  
Latitude/Longitude: 28° 09' 59"N  
82° 08' 27"W  
Project: Sulfuric Acid Plant C

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

For the permitting of the Sulfuric Acid Plant C, with a maximum production capacity of 2400 tons per day 100% acid. Sulfur dioxide and acid mist emissions will be controlled by the existing double absorption process. The project is located at Central Phosphate's existing facility in Hillsborough County, Florida. The UTM coordinates are Zone 17, 388 km East and 3116 km North.

The Standard Industrial Classification (SIC) Code is Group 20, Chemical and Allied Products; Industry No. 2819, Sulfuric Acid Contact Process. The Source Classification Code (SCC) is 3-01-023-04, C and D Plants (99.5% Conversion). Construction will be in accordance with the permit application, plans, documents, and reference materials submitted unless otherwise stated in the General and Specific Conditions.

The PSD number for this permit is PSD-FL-119.

#### Attachments:

1. Central Phosphates application package dated March 19, 1987.
2. John Koogler's letter dated April 17, 1987.
3. DER's letter of incompleteness dated April 22, 1987.
4. Department of Interior's letter dated May 1, 1987.
5. DER's letter dated May 15, 1987.
6. John Koogler's letter dated January 28, 1988.
7. Central Phosphates application package for A and B plants dated March 1, 1988.
8. John Koogler's letter dated March 8, 1988.
9. Preliminary Determination dated April 5, 1988.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-132155  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-132155  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-132155  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- (x) Determination of Prevention of Significant Deterioration (PSD)
- (x) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-132155  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

**SPECIFIC CONDITIONS:**

For Sulfuric Acid Plant C

1. The Plant C may operate continuously, i.e., 8760 hours/year.
2. The maximum production rate shall not exceed 2400 TPD (tons per day) based on 100% H<sub>2</sub>SO<sub>4</sub>.



PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-132155  
Expiration Date: September 30, 1989

SPECIFIC CONDITIONS:

3. Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed:

- a) 4 lbs/ton of 100% H<sub>2</sub>SO<sub>4</sub> produced
- b) 400 lbs/hr
- c) 1752 TPY (tons/yr)

4. Sulfuric Acid Mist emissions shall not exceed:

- a) 0.15 lb/ton, 100% H<sub>2</sub>SO<sub>4</sub> produced
- b) 15 lbs/hr
- c) 65.7 TPY

5. Visible Emissions (VE) shall not exceed 10% opacity.

6. Nitrogen oxides (NO<sub>x</sub>) emissions are estimated to be 62.1 TPY.

7. An SO<sub>2</sub> continuous emission monitor shall be installed, calibrated, maintained and operated in accordance with 40 CFR 60, Subpart H.

8. The permittee shall comply with all the applicable provisions of Chapter 17-2 and 17-4 of the Florida Administrative Code (FAC) and 40 CFR 60 Subpart H, Standards of Performance for Sulfuric Acid Plants.

9. Initial and annual compliance tests shall be conducted in accordance with 40 CFR 60 Subpart H, and Appendix A, to determine emissions of SO<sub>2</sub>, acid mist, and visible emissions. EPA Method 8 for SO<sub>2</sub> and acid mist, and EPA Method 9 for visible emissions shall be used for compliance testing.

10. The Hillsborough County Environmental Protection Commission (HCEPC) office shall be notified in writing 15 days prior to source testing. Written reports of the tests shall be submitted to the HCEPC office within 45 days of test completion.

The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, the Department and HCEPC must be notified in writing 60 days prior to the expiration of the construction permit and the permittee shall submit a new schedule and request for an extension of the construction permit (Rule 17-2, FAC).

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-132155  
Expiration Date: September 30, 1989

**SPECIFIC CONDITIONS:**

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with compliance test results, and the Certificate of Completion, to the HCEPC office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rules 17-2 and 17-4)

If the construction permit expires prior to the permittee filing an application for a permit to operate, then all activities at the project must cease. (FAC Rule 17-4)

11. Any change in the method of operation, raw materials and chemicals processed, equipment, or operating hours pursuant to FAC Rule 17-2.100(118), Modification, shall be submitted for approval to DER's Bureau of Air Quality Management office and HCEPC office.

12. When start-up involving more than one acid plant occurs, a second plant will not be started up until the first plant is started and in compliance. The permittee shall take all reasonable precautions to avoid violations of ambient air quality standards during plant start-ups.

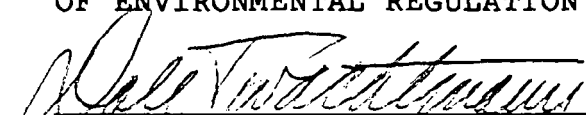
13. This permit shall replace previous permits issued for Central Phosphate's Acid Plant C.

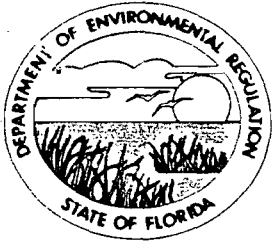
PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-132155  
Expiration Date: September 30, 1989

Issued this 25 day of May,  
1988.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Dale Twachtmann, Secretary



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

PERMITTEE:	Permit Number:	AC 29-132157
Central Phosphates, Inc.	Expiration Date:	September 30, 1989
P. O. Drawer L	County:	Hillsborough
Plant City, FL 33566	Latitude/Longitude:	28° 09' 59"N 82° 08' 27"W
	Project:	Sulfuric Acid Plant D

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

For the permitting of the Sulfuric Acid Plant D, with a maximum production capacity of 2400 tons per day 100% acid. Sulfur dioxide and acid mist emissions will be controlled by the existing double absorption process. The project is located at Central Phosphate's existing facility in Hillsborough County, Florida. The UTM coordinates are Zone 17, 388 km East and 3116 km North.

The Standard Industrial Classification (SIC) Code is Group 20, Chemical and Allied Products; Industry No. 2819, Sulfuric Acid Contact Process. The Source Classification Code (SCC) is 3-01-023-04, C and D Plants (99.5% Conversion). Construction will be in accordance with the permit application, plans, documents, and reference materials submitted unless otherwise stated in the General and Specific Conditions.

The PSD number for this permit is PSD-FL-119.

#### Attachments:

1. Central Phosphates application package dated March 19, 1987.
2. John Koogler's letter dated April 17, 1987.
3. DER's letter of incompleteness dated April 22, 1987.
4. Department of Interior's letter dated May 1, 1987.
5. DER's letter dated May 15, 1987.
6. John Koogler's letter dated January 28, 1988.
7. Central Phosphates application package for A and B plants dated March 1, 1988.
8. John Koogler's letter dated March 8, 1988.
9. Preliminary Determination dated April 5, 1988.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-132157  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-132157  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

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7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-132157  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- (x) Determination of Prevention of Significant Deterioration (PSD)
- (x) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-132157  
Expiration Date: September 30, 1989

**GENERAL CONDITIONS:**

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the date(s) analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

**SPECIFIC CONDITIONS:**

For Sulfuric Acid Plant D

1. The Plant D may operate continuously, i.e., 8760 hours/year.
2. The maximum production rate shall not exceed 2400 TPD (tons per day) based on 100% H<sub>2</sub>SO<sub>4</sub>.



PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-132157  
Expiration Date: September 30, 1989

**SPECIFIC CONDITIONS:**

3. Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed:

- a) 4 lbs/ton of 100% H<sub>2</sub>SO<sub>4</sub> produced
- b) 400 lbs/hr
- c) 1752 TPY (tons/yr)

4. Sulfuric Acid Mist emissions shall not exceed:

- a) 0.15 lb/ton, 100% H<sub>2</sub>SO<sub>4</sub> produced
- b) 15 lbs/hr
- c) 65.7 TPY

5. Visible Emissions (VE) shall not exceed 10% opacity.

6. Nitrogen oxides (NO<sub>x</sub>) emissions are estimated to be 62.1 TPY.

7. An SO<sub>2</sub> continuous emission monitor shall be installed, calibrated, maintained and operated in accordance with 40 CFR 60, Subpart H.

8. The permittee shall comply with all the applicable provisions of Chapter 17-2 and 17-4 of the Florida Administrative Code (FAC) and 40 CFR 60 Subpart H, Standards of Performance for Sulfuric Acid Plants.

9. Initial and annual compliance tests shall be conducted in accordance with 40 CFR 60 Subpart H, and Appendix A, to determine emissions of SO<sub>2</sub>, acid mist, and visible emissions. EPA Method 8 for SO<sub>2</sub> and acid mist, and EPA Method 9 for visible emissions shall be used for compliance testing.

10. The Hillsborough County Environmental Protection Commission (HCEPC) office shall be notified in writing 15 days prior to source testing. Written reports of the tests shall be submitted to the HCEPC office within 45 days of test completion.

The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, the Department and HCEPC must be notified in writing 60 days prior to the expiration of the construction permit and the permittee shall submit a new schedule and request for an extension of the construction permit (Rule 17-2, FAC).

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-132157  
Expiration Date: September 30, 1989

**SPECIFIC CONDITIONS:**

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with compliance test results, and the Certificate of Completion, to the HCEPC office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rules 17-2 and 17-4)

If the construction permit expires prior to the permittee filing an application for a permit to operate, then all activities at the project must cease. (FAC Rule 17-4)

11. Any change in the method of operation, raw materials and chemicals processed, equipment, or operating hours pursuant to FAC Rule 17-2.100(118), Modification, shall be submitted for approval to DER's Bureau of Air Quality Management office and HCEPC office.

12. When start-up involving more than one acid plant occurs, a second plant will not be started up until the first plant is started and in compliance. The permittee shall take all reasonable precautions to avoid violations of ambient air quality standards during plant start-ups.

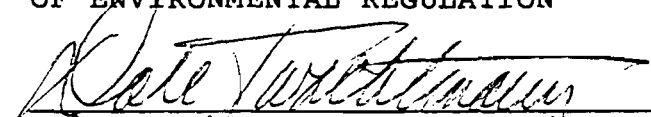
13. This permit shall replace previous permits issued for Central Phosphate's Acid Plant D.

PERMITTEE:  
Central Phosphates, Inc.

Permit Number: AC 29-132157  
Expiration Date: September 30, 1989

Issued this 25 day of May,  
1988

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Dale Twachtmann, Secretary

Best Available Control Technology (BACT) Determination  
Central Phosphates, Inc.  
Hillsborough County

The applicant proposes to install cogeneration capability at their existing facility in Hillsborough County. The project includes production increases of the A and B Sulphuric Acid plants from 1000 TPD (tons per day) to 1050 TPD, and of C and D Plants from 1900 TPD to 2400 TPD.

The proposed project will result in a reduction in emissions of SO<sub>2</sub> and acid mist from the A and B plants, but a significant increase (Table 17-2.500-2, Florida Administrative Code, FAC) from the C and D plants. The C and D plants are therefore subject to a Prevention of Significant Deterioration (PSD) review in accordance with Rule 17-2.500(2)(d)4, FAC.

The BACT review is part of the PSD review requirements in accordance with Rule 17-2.500(5)(c), FAC.

BACT Determination Requested by the Applicant

The BACT determination requested by the applicant on a pollutant by pollutant basis is given below.

<u>Pollutant</u>	<u>Determination</u>
SO <sub>2</sub>	4 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> produced
Acid Mist	0.15 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> produced

Date of Receipt of a BACT application:

March 19, 1987

Review of Group Members:

This determination was based upon comments received from the applicant, EPA Region IV, and the Stationary Source Control Section.

BACT Determination Procedure:

In accordance with Florida Administrative Code Chapter 17-2, Air Pollution, this BACT determination will be based on the maximum degree of reduction of each pollutant emitted which the Department (DER), on a case-by-case basis taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In

addition, the regulations state that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering, and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other state.
- (d) The social and economic impact of the application of such technology.

In addition to the criteria discussed above, the EPA has recently stressed that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission source in question, the most stringent control available for a similar or identical source or source category. If it can be shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

BACT Determined by DER:

<u>Pollutant</u>	<u>Emission Limit</u>
SO <sub>2</sub>	4.0 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> produced
Acid Mist	0.15 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> produced

BACT Determination Rationale

DER's BACT determination is the same as that proposed by the applicant, determinations completed by other states, and Standards of Performance for Sulfuric Acid Plants, 40 CFR 60 Subpart H, (double absorption process). The process in itself is the control technology for SO<sub>2</sub> and acid mist. The emission limits reflect conversion efficiency around 99.7% of SO<sub>2</sub> to H<sub>2</sub>SO<sub>4</sub>. High efficiency mist eliminators are considered BACT for acid mist. A review of BACT/LAER Clearinghouse indicates that the double absorption technology, and the use of high efficiency mist eliminators is representative of BACT using the top down approach.

Environmental Impact Analyses

The impact analyses for the BACT determination is based on 8760 hrs/yr operation for both C and D plants. The ambient air quality standards analysis resulted in the following for SO<sub>2</sub> emissions (Plants A, B C and D):

Averaging Time	Predicted Max. Conc. (ug/m <sup>3</sup> )	Florida AAQS (ug/m <sup>3</sup> )
Annual	45	60
24-hour	245	260
3-hour	817	1300

Although the predicted maximum concentration for sulfur dioxide approaches the Florida AAQS, the incremental impact due to the proposed modification is insignificant.


Conclusion

The Department has determined that for the increase in production capacity of the C and D Sulfuric Acid Plants the emission limits established herein represent BACT.


Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator  
Department of Environmental Regulation  
Bureau of Air Quality Management  
2600 Blainstone Road  
Tallahassee, Florida 32399-2400

Recommended by:

  
\_\_\_\_\_  
C. H. Fahey, P.E.  
Deputy Bureau Chief, BAQM

5/25/88  
Date

Approved by:   
\_\_\_\_\_  
Dale Twachtmann, Secretary

25 May 88  
Date