

Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347 • 813-623-5561

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary
Dr. Richard Garrity, Deputy Assistant Secretary

PERMITTEE:

CF Industries, Inc.
Plant City Phosphate Complex
P.O. Drawer L
Plant City, FL 33564

PERMIT/CERTIFICATION

Permit No: AO29-181935
County: Hillsborough
Expiration Date: 09/24/95
Project: Y-Train: DAP, MAP
or GTSP

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 & 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 operation of the Y-Train for the production of DAP, MAP or GTSP. Only one production mode can operate at a time. The Y-Train consists of a reactor, a granulator, a dryer and a recently installed 50,000 ACFM rotary cooler equipped with a 4-cone multiple cyclone and a single-stage cyclonic scrubber, that discharges to the pre-existing Y-Train scrubber (AO29-88151). The maximum production rate for this source is 100 TPH. The maximum heat input to the dryer is 49.5 MMBTU/hr. that can be supplied by natural gas, as primary fuel or by No. 5 fuel oil, as a stand-by fuel. Specific production mode rates, fuel conditions and emission limiting standards are contained in the specific conditions of this project. The NSPS requirements for DAP production applies to this source.

Location: 10609 Highway 39 North, 10 miles north of Plant City

UTM: 17-358.9 E 3092.8 N NEDS NO: 0005 Point ID: 13-GTSP Mode
17-DAP Mode
(NSPS)
21-MAP Mode

Replaces Permit No.: AC29-165420

PERMITTEE:
 CF Industries, Inc.
 Plant City Phosphate
 Complex

PERMIT/CERTIFICATION NO.: A029-181935
 PROJECT: Y-Train: DAP, MAP or GTSP

SPECIFIC CONDITIONS:

1. A part of this permit is the attached 15 General Conditions.
2. Pursuant to the construction permit, the maximum fluoride emissions from this source shall not exceed the following:

<u>Production Mode</u>	<u>lbs. F/Ton P₂O₅</u>	<u>Rule Applicability</u>
DAP	0.06	Subpart V, 40 CFR 60 (Rule 17-2.660, F.A.C.)
GTSP	0.15	Rule 17-2.600(3)(a)4.b., F.A.C.
MAP	0.06	Rule 17-2.600(3)(a)9. F.A.C. [BACT]

3. Pursuant to the construction permit, particulate emissions for this source shall not exceed:

<u>Production Mode</u>	<u>lbs./hr.</u>	<u>TPY</u>
GTSP	6.8	30
MAP/DAP	15.3	67

4. Visible emissions for this source shall not be equal to or greater than 20% opacity in accordance with Rule 17-2.610(2)(a), F.A.C.
5. This source is exempted from particulate RACT as demonstrated by air dispersion modeling [Rule 17-2.650(2)(b)2., F.A.C.].
6. Maximum raw material consumption and production of the Y-Train shall not exceed the following:

<u>Production Mode</u>	<u>Max Prod TPH</u>	<u>Raw Material Input (TPH)</u>		
		<u>Phos Rock</u>	<u>Acid (H₃PO₄)</u>	<u>NH₃</u>
DAP	100	----	122.3	23.1
GTSP	55	25.2	52.4	----
MAP	100	----	130.6	14.1

The permittee shall maintain logs that can be used to determine compliance with these restrictions. These logs shall include the hourly quantity of phosphoric acid feed to the plant and the daily P₂O₅ content of the acid [Rule 17-4.070(3), F.A.C.].

PERMITTEE:
CF Industries, Inc.
Plant City Phosphate
Complex

PERMIT/CERTIFICATION NO.: A029-181935
PROJECT: Y-Train: DAP, MAP or GTSP

SPECIFIC CONDITIONS: (continued)

7. The Y-Train may operate continuously, 8760 hrs./yr.

8. Test the emissions for the following pollutant(s) at intervals of 12 months from May 5, 1990 and within 30 days of a change in production mode and/or a switch to stand-by fuel (No. 5 fuel oil) and submit 2 copies of test data to the Air Section of the Environmental Protection Commission of Hillsborough County office within forty-five days of such testing. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. Tests may not be repeated for any production mode change or fuel switching condition that occur within a consecutive 12 month period. The Method 9 test interval for this source shall be thirty (30) minutes in duration:

- (X) Particulates
- (X) Fluorides
- (X) Opacity

9. Compliance with the emission limitations of Specific Conditions Nos. 2, 3 and 4 shall be determined using EPA Methods 1, 2, 3, 4, 5, 9, 13A or 13B contained in 40 CFR 60, Appendix A and adopted by reference in Section 17-2.700, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Section 17-2.700, F.A.C. and 40 CFR 60, Appendix A.

10. Approved compliance stack testing of emissions must be conducted within 10% of the permitted capacity (100 TPH of DAP, 100 TPH of MAP or 55 TPH of GTSP production). A compliance test submitted at operating levels less than 90% of permitted capacities will automatically constitute an amended permit at the lesser rate plus 10% until another test (showing compliance) at 90% of a higher capacity is submitted. A copy of the logs and/or charts for the operating parameters noted in Specific Condition No. 15 shall be attached to each compliance test report. Failure to submit the input rate or operation at conditions during testing which do not reflect actual operating conditions may invalidate the data [Rule 17-4.070(3), F.A.C.].

11. The Environmental Protection Commission of Hillsborough County shall be notified in writing 15 days in advance of any compliance test to be conducted on this source.

PERMITTEE:
CF Industries, Inc.
Plant City Phosphate
Complex

PERMIT/CERTIFICATION NO.: AO29-181935
PROJECT: Y-Train: DAP, MAP or GTSP

SPECIFIC CONDITIONS: (continued)

12. The primary fuel for this source shall be natural gas. Sulfur content of the stand-by No. 5 fuel oil shall not exceed 1.6% as determined by the ASTM methods referenced in 40 CFR 60.17 (July 1, 1988). Certification of the sulfur content of the No. 5 fuel oil by the supplier may be used to confirm compliance with this restriction. The fuel oil analysis results or supplier's certificate during compliance testing shall be submitted in conjunction with the emission compliance test results.

13. Pursuant to Specific Condition No. 12 of the construction permit and within 90 days of receipt of this permit, the source shall comply with the pressure drop monitoring requirements specified in 40 CFR 60.223, for the scrubbing system.

14. The permittee shall maintain and operate a device which is capable of monitoring phosphorus bearing materials input within 5 percent accuracy of the operable range, as specified in 40 CFR 60.223.

15. Pursuant to Subsection 17-4.070(3), F.A.C., this source shall comply with the following:

- A. Strained pond water to the reactor fume scrubbers, dryer fume scrubbers, and cooler scrubber shall be within the normal range of 78 to 84 p.s.i.g. to each scrubber. Operators shall read the gauge to each scrubber and record the value hourly.
- B. The dust scrubber, reactor fume scrubbers, dryer fume scrubbers and cooler scrubber shall each operate within the typical pressure drop range of 8 to 15 inches (normal is 12 inches). Each of the 4 scrubber units will have continuous monitors and be operated as required in Specific Condition No. 13.
- C. The Ducon tail gas packed bed abatement scrubber's liquid spray pump shall be operated within the normal range of 36 to 38 p.s.i.g. Operators shall read the gauge and record the value hourly. Additionally, the pH of the scrubbing liquid for this scrubber shall be continuously monitored and recorded. The pH of the scrubbing liquid shall not fall below 6.5, since the typical range is from 6.5 to 7.5 with a normal operating value of 7.0.

30-40

PERMITTEE:
CF Industries, Inc.
Plant City Phosphate
Complex

PERMIT/CERTIFICATION NO.: AO29-181935
PROJECT: Y-Train: DAP, MAP or GTSP

SPECIFIC CONDITIONS: (continued)

16. Records of monitoring data as required under Specific Condition Nos. 6, 13, 14, and 15 of this permit shall be made available at all time for inspection by the Environmental Protection Commission of Hillsborough County [Chapter 1-1.04(1)].

17. Pursuant to Chapter 1-3.22(3) of the Rules of the Environmental Protection Commission of Hillsborough County, the permittee shall not allow the discharge of air pollutants which contribute to an objectionable odor.

18. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provision in Rule 17-2.610(3), F.A.C. These provisions are applicable to any source, including, but not limited to, vehicular movement, transportation of materials, construction, alterations, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling. This shall include keeping covers on process equipment, prompt clean-up of spills within the plant, and cleaning or wetting areas used by vehicles.

19. Submit for this facility, each calendar year, on or before March-1, an emission report for the preceding calendar year containing the following information pursuant to Section 403.061(13), Florida Statutes:

- (A) Annual amount of materials and/or fuels utilized.
- (B) Annual emissions (note calculation basis).
- (C) Any changes in the information contained in the permit application.

Duplicate copies of all reports shall be submitted to the Environmental Protection Commission of Hillsborough County.

20. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapter 17-2, F.A.C., or any other requirements under federal, state, or local law. Section 17-2.210, F.A.C.

PERMITTEE:
CF Industries, Inc.
Plant City Phosphate
Complex

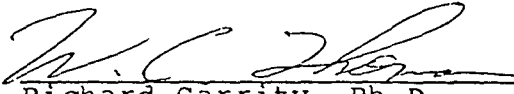
PERMIT/CERTIFICATION NO.: AO29-181935
PROJECT: Y-Train: DAP, MAP or GTSP

SPECIFIC CONDITIONS: (continued)

21. Pursuant to Section 17-4.090, F.A.C., an application for renewal of permit to operate this source, completed in quadruplicate, shall be submitted to the Environmental Protection Commission of Hillsborough County at least 60 days prior to its expiration date.

Issued this 14 day of November
19 90.

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION


For Richard Garrity, Ph.D.
Deputy Assistant Secretary