

# Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

813-620-6100

Carol M. Browner, Secretary

## FACSIMILE TRANSMISSION SHEET

6-3-92

Date

TO: Bruce Mitchell

Dept.: BAR

Phone: \_\_\_\_\_

FROM: Jim McDonald

Dept.: DER, Southwest District

Phone: (813) 620-6100 SunCom 542-6100 EXT \_\_\_\_\_

OPERATOR: \_\_\_\_\_ EXT. \_\_\_\_\_

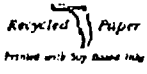
SUBJECT: CF Industries X-Train modification

Total Number of Pages, Including Cover Page: 4

*Attached find a draft response. I will call you Thursday morning about setting a conference call on Tuesday 6-4-92 at 10:00 AM with Carlos of EPC, Jim Martin + Tom Edwards of CF, and myself*

Air Program FAX Number is (813) 620-6092

SunCom 542-6092



June 2, 1992

Mr. Carlos Gonzalez,  
Air Permit Engineer  
Hillsborough County Environmental  
Protection Commission  
1410 N. 21st Street  
Tampa, Florida 33605

Subject: Hillsborough County - AP Der  
File No. AC29-210979 (X-Train  
Cooler Installation)

Dear Mr. Gonzalez:

In response to your letter of April 21, 1992, the following is offered to answer your questions:

1. Explain why NSPS for the DAP production does not apply (Section II:G4. of the application). It should be noted that the Y-Train (AO29-181935) is subject to the NSPS rules for DAP production.

CFII agrees to accept NSPS for the DAP production on X-Train the same as on Y-Train.

2. Pursuant to Rule 17-2.600(3) (a)9., FAC, a BACT determination is required. Please provide the proposed fluoride emission limit for MAP production for our review.

The existing permit AC29-167059 contains limits for production of DAP/MAP and GTSP. DAP/MAP limits are .06 pounds of F per ton of  $P_2O_5$  input to the plant. This was determined to be BACT on the Y-Train and should not be different for X-Train since the plants are identical. BACT for MAP should be the same regardless of what plant it is produced in.

3. Explain further how each of the actual emissions limits in Section III:c were derived. What will be each of the new proposed actual (allowable) emissions? With this information, the FDER and the EPCHC can determine if NSR for particulate matter emissions and PSD for fluoride emissions are triggered.

The maximum lbs/hr emissions are the highest emission taken from past compliance tests. The actual tons per year are based on the 1991 compliance tests and uses the hours of operation during the year to calculate tons. These are the numbers reported in the annual operating report for 1991. The allowed emission rate per Ch.17-2 F.A.C. for fluorides is taken from F.A.C.17-2.600(3)a. For GTSP the allowable is 0.15 lbs/ton of  $P_2O_5$  input to the unit. For DAP the allowable is 0.06 lbs/ton of  $P_2O_5$  input to the unit. The allowable emission for MAP was determined by BACT when Y-Train was permitted for the addition of the cooler. Once

BACT is determined for a process it should be the same for other units using the same process. This was determined to be the same as for DAP or 0.06 lbs/ton P<sub>2</sub>O<sub>5</sub> input.

The allowed emission for particulate was established years ago when CF Industries modeled the allowed particulate emissions at the time to exempt the complex from the requirements of RACT and showed no effect on the non-compliance area for particulate matter in Tampa.

The allowable particulate emissions in lbs/hr are taken from the present permit # A029-167059. These are based on the allowed emissions by F.A.C. 17-2.600(3)a. at the previous production rate of 75 tons of product /hr for DAP and MAP. Particulates are based on the previous modeling done as mentioned above.

Since this is an existing source and no emissions increase is being proposed the allowable emissions should not change, particularly since the plant is already permitted for this emission. NSR for particulate matter and PSD for fluoride emissions should not be triggered as these are presently allowable.

4. Explain why the proposed limits for particulate matter emissions are different than the Y-Train.

The proposed emission limit for particulate matter is taken from the present existing permit and no increase is proposed. With no increase in emissions the addition of a cooler is not a modification by the definition of modification and emissions allowed should not change. Even though X-Train and Y-Train are identical units the emissions should be based on present allowable emissions.

5. Explain why the dryer heat input for this project is different than the Y-Train (49.5MMBTU/hr. vs. 45 MMBTU/hr.). It should be noted that the renewal application for the X-Train (6/20/89) states 49.7 MMBTU/hr.

The heat input for the dryer should be 49.5 MMBTU/hr the same as Y-Train. The 45MMBTU/hr is an error in the X-Train application.

6. Provide the manufacturer name, model number and specifications for the following:
  - a) the cooler
  - b) cooler cyclones
  - c) cooler scrubber
  - d) cooler scrubber fan.

These are not available at this time since the contract for the addition has not been awarded. These will be provided whenever they become available.

7. Explain why in the schematic (CF Industries Drawing No. 5.1-F-001) shows that the input rate to the cooler is 85 TPH but the application states 100 TPH.

The 100 TPH stated in the application is the maximum production rate for the unit and is the maximum rate the plant will run. The 85 TPH on the schematic is the nominal flow rate used for design purposes.

8. Does the stack geometry and flow data in Section III:H. of the application include the cooler discharge?

Yes.

9. If NSPS for the DAP production is triggered, explain how the facility will comply with the requirements of 40 CFR 60.223(a), (b), (c).

Compliance will be exactly as is presently done on Y-Train. Flow meters are installed on both the acid and ammonia feeds to the unit. These are recorded hourly on the operator's log sheet. Samples of the acid feed to the process are taken hourly and sent to the laboratory every eight hours for analysis. Instruments would be installed to comply with 40CFR 60.223(c) as has been done on Y-Train.

10. Submit the design information necessary for the FDER and the EPCHC to write a condition similar to Specific Condition No. 15 for the Y-Train (AO29-181935).

The design and operating parameters for X-Train are exactly the same as for Y-Train. Therefore Specific Condition No. 15 would be the same as for Y-Train. The only possible exception would be for the new equipment associated with the cooler. Since the contract has not been awarded, this cannot be determined until that time. This will be supplied to you when available but is not expected to be different from Y-Train.

COMMISSION

PHYLLIS BUSANSKY  
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JAN KAMINIS PLATT  
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FAX (813) 272-5157



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APR 23 1992  
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TELEPHONE (813) 272-7104

April 21, 1992

CERTIFIED MAIL # P 648 519 706

Mr. J.E. Parsons  
General Manager  
CF Industries, Inc.  
Plant City Phosphate Complex  
P.O. Drawer L  
Plant City, FL 33564-9009

Re: Hillsborough County - AP  
DER File No. AC29-210979 (X-Train Cooler Installation)

Dear Mr. Parsons:

Please be advised that the Environmental Protection Commission of Hillsborough County (EPCHC) and the Florida Department of Environmental Regulation (FDER) have completed their initial review of the above application and found it to be incomplete. In order to complete the review process two copies of the following additional information is being requested pursuant to Chapter 17-4.070, F.A.C.:

1. Explain why NSPS for the DAP production does not apply (Section II:G.4. of the application). It should be noted that the Y-Train (AO29-181935) is subject to the NSPS rules for DAP production.
2. Pursuant to Rule 17-2.600(3)(a)9., F.A.C., a BACT determination is required. Please provide the proposed fluoride emission limit for MAP production for our review.
3. Explain further how each of the actual emission limits in Section III:C were derived. What will be each of the new proposed actual (allowable) emissions? With this information, the FDER and the EPCHC can determine if NSR for particulate matter emissions and PSD for fluoride emissions are triggered.
4. Explain why the proposed limits for particulate matter emissions are different than the Y-Train.

Mr. J.E. Parsons  
April 21, 1992  
Page 2

5. Explain why the dryer heat input for this project is different than the Y-Train (49.5 MMBTU/hr. vs. 45 MMBTU/hr.). It should be noted that the renewal application for the X-Train (6/20/89) states 49.7 MMBTU/hr.
6. Provide the manufacturer name, model number and specifications for the following:
  - a) the cooler
  - b) cooler cyclones
  - c) cooler scrubber
  - d) cooler scrubber fan
7. Explain why in the schematic (CF Industries Drawing No. 5.1-F-001) shows that the input rate to the cooler is 85 TPH but the application states 100 TPH.
8. Does the stack geometry and flow data in Section III:H. of the application include the cooler discharge?
9. If NSPS for the DAP production is triggered, explain how the facility will comply with the requirements in 40 CFR 60.223(a), (b), and (c).
10. Submit the design information necessary for the FDER and the EPCHC to write a condition similar to Specific Condition No. 15 for the Y-Train (A029-181935).

If you feel a meeting will help expedite this matter please call the undersigned or Jim McDonald of the Southwest FDER at (813) 620-6100, Extension 421.

"NOTICE! Pursuant to the provisions of Section 120.600 F.S., if the Department does not receive a response to this request for information within 90 days of the date of this letter, the Department will issue a final order denying your application. You need to respond within 30 days after your receive this letter, responding to as many of the information requests as possible and indicating when a response to any unanswered question will be submitted. If the response will require longer than 90 days to develop, an application for new construction should be withdrawn and resubmitted when completed information is available. Or for operating permits, you should develop a specific time table for the submission of the requested information for Department review and consideration. Failure to comply with a time table accepted by the Department will be grounds for the Department to issue a Final Order of Denial for lack of timely response. A denial for lack of

Mr. J.E. Parsons  
April 21, 1992  
Page 2

information or response will be unbiased as to the merits of the application. The applicant can reapply as soon as the requested information is available."

In your response, please submit the original to the undersigned and a copy to Jim McDonald, Southwest District FDER and Bruce Mitchell, FDER in Tallahassee.

If you have any questions, please feel free to contact me at (813) 272-5530.

Sincerely,



Carlos C. Gonzalez  
Air Permit Engineer

bm

cc: Jim McDonald, FDER, SW-District  
Bruce Mitchell, DARM  
C. Fred Deuel, P.E., C. Fred Deuel and Associates