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GAINESVILLE, FLORIDA 32609
352/377-5822 ■ FAX/377-7158

KA 344-01-02

May 12, 2004

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BUREAU OF AIR REGULATION

Mr. Jim Pennington, P.E.
Florida Department of
Environmental Protection
MS 5505
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Additional Information on Title V Permit Renewal
C.F. Industries, Inc. - Bartow
DEP File No. 1050052-008-AV

Dear Mr. Pennington:

This is a follow up to your letter dated April 2, 2004, requesting additional information on the above referenced Title V renewal project. The responses are provided in the order of the questions.

1. The amount of hazardous air pollutants emissions from the site. In particular, please quantify the annual amount of HF emissions coming from the gypsum and cooling ponds located on the property. Please provide the fluoride concentrations and the pH values of the ponds, and the total acres of pond water. If applicable, please also provide information concerning the closure of these ponds.

RESPONSE

The emissions units listed in the application do not generate HF emissions. These units are not expected to be sources of other HAP emissions. Based on the concentration of fluoride and the pH in process water of the phosphogypsum stack system, HF emissions from the gypsum stack and cooling pond, if any, are believed to be de minimis. The cooling pond covers 175 acres and exhibits a pH of 3.3 standard units (SU). The fluoride concentration in the pond varies from approximately 60 to 210 ppm and the pond has no heat input (i.e., pond water is at ambient temperature). Based on past studies conducted by EPA and others, a conservative emission factor of 0.1 lb total F/acre-day could be applied to gypsum pond and cooling ponds at operating phosphate fertilizer facilities with fluoride concentrations around 10,000 ppm fluoride, a pH around 1 SU and a significant process heat input. Higher pH and lower fluoride concentrations and temperatures, such as those found in the CF Bartow ponds, are known to favor lower fluoride emissions. Nevertheless, for purposes of generating a conservative estimate, if this same emission

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factor (0.1 lb/acre-day) were applied to the CF Bartow cooling pond system, and if all resultant fluoride emissions were presumed to be HF, this would still amount to only 3.2 tons per year, which is well below the HAP major source threshold

2. Your intended use, during the next 5 years, of the following Emission Units: EU 006, Sulfuric Acid Plant No. 6; EU 021 Boiler No.1; and, EUs 032-034, Molten Sulfur System.

RESPONSE

These units represent a significant long-term capital investment for CF. The start up of the above units depends upon the demand and associated economics. It is requested that FDEP allow for the future operation of the units under the renewed Title V permit.

3. As a reminder, Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature.

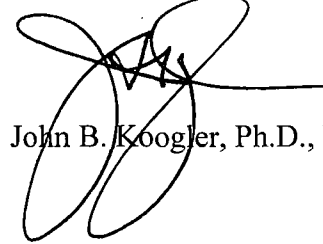
RESPONSE

The PE certification form is attached.

If you have any additional questions, please call Craig Kovach at (863) 533-8048, ext. 246, or Pradeep Raval at (352) 377-5822.

Very truly yours,

KOOGLER & ASSOCIATES



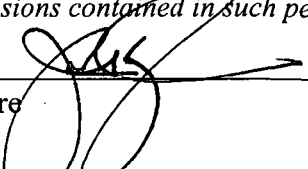
John B. Koogler, Ph.D., P.E.

JBK:par
Encl.

C: John Doran, CF Bartow
Craig Kovach, CF Bartow
Lynne Vadelund, CF Bartow
John Bunch, CF Bartow
Cheryl Peck, CF Bartow

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: John B. Koogler Registration Number: 12925
2. Professional Engineer Mailing Address... Organization/Firm: Koogler & Associates Street Address: 4014 NW 13th Street City: Gainesville State: Fl Zip Code: 32609
3. Professional Engineer Telephone Numbers... Telephone: (352) 377-5822 ext. Fax: (352) 377-7158
4. Professional Engineer Email Address: jkoogler@kooglerassociates.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input checked="" type="checkbox"/>, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/>, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i> Signature (seal)  Date <u>5/5/04</u>

* Attach any exception to certification statement.



Jeb Bush
Governor

Department of Environmental Protection

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

April 2, 2004

Colleen M. Castille
Secretary

CERTIFIED MAIL- RETURN RECEIPT REQUESTED

Mr. John Doran
CF Industries, Inc.
P.O. Box 1480
Bartow, FL 33831

Re: Bartow Phosphate Complex Title V Renewal DEP File No.1050052-008-AV

Dear Mr. Doran,


On March 4, 2002, the Department received your additional information for the renewal of the Title V permit for the Bartow Phosphate Complex. Specifically, the following information remains outstanding:

1. The amount of hazardous air pollutants emissions from the site. In particular, please quantify the annual amount of HF emissions coming from the gypsum and cooling ponds located on the property. Please provide the fluoride concentrations and pH values of the ponds, and the total acres of pond water. If applicable, please also provide information concerning the closure of these ponds.
2. Your intended use, during the next 5 years, of the following Emissions Units:
E.U. 00006, Sulfuric Acid Plant No. 6;
E.U. 021, Boiler No. 1; and
E.U.s 032-034, Molten Sulfur System.

As a reminder, rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature.

Please submit all requested information immediately to Mr. Bobby Bull at FDEP Bureau of Air Regulation, MS 5505, 2600 Blair Stone Road, Tallahassee, FL 32399-2400. If you have any questions regarding this request for additional information, please contact Mr. Bull at Robert.Bull@dep.state.fl.us or (850) 921-9585.

Sincerely,


James K. Pennington, P.E.
Bureau of Air Regulation

cc: Jason Waters, FDEP-SWD
Pradeep Raval, Consultant, Kooger and Associates
John B. Koogler, PhD., P.E., Kooger and Associates

"More Protection, Less Process"

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