Florida Department of Environmental Protection

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

Rick Scott
Governor

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Lt. Governor

Herschel T. Vinyard Jr.
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9/23/2011

Mr. Herschel E. Morris, Vice-President Phosphate Operations & General Manager
CF Industries, Inc.
P.O. Drawer L
Plant City, Florida 33564
hmorris@cfindustries.com

Re: Title V Air Operation Permit Renewal
PROPOSED Permit Project No.: 0570005-041-AV
Plant City Phosphate Complex

Dear Mr. Morris:

One copy of the "PROPOSED Determination" for the renewal of a Title V Air Operation Permit for the CF Industries, Inc., Plant City Phosphate Complex located at 10608 Paul Buchman Highway, Plant City, Hillsborough County, is enclosed. This letter is only a courtesy to inform you that the DRAFT Permit has become a PROPOSED Permit.

An electronic version of this determination has been posted on the Division of Air Resources Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is:

"http://www.dep.state.fl.us/air/emission/apds/default.asp"

Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the PROPOSED Permit is made by the USEPA within 45 days, the PROPOSED Permit will become a FINAL Permit no later than 55 days after the date on which the PROPOSED Permit was mailed (posted) to USEPA. Day 55 is 11/17/2011. If USEPA has an objection to the PROPOSED Permit, the FINAL Permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn.

If you should have any questions, please contact Danny Stubbs at 813/632-7600 extension 159.

Sincerely,

Cindy Zhang-Torres

Cindy Zhang-Torres, P.E.
Air Permitting Manager
Southwest District

CZT/ds/pp

Enclosures

copy furnished to:
Mr. Ronald L. Brunk, CF Industries, Inc. (rbrunk@cfindustries.com)
Ms. Veronica Sgro, P.E., Koogler and Associates, Inc. (vsgro@kooglerassociates.com)
Ms. Diana Lee, EPC of Hillsborough County (Lee@epchc.org)

PROPOSED Determination

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" to CF Industries, Inc. for the Plant City Phosphate Complex located at 10608 Paul Buchman Highway, Plant City, Hillsborough County was clerked on August 18, 2011. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" was published in the Tampa Tribune on August 23, 2011. The DRAFT Permit was available for public inspection at the permitting authority's office in Temple Terrace, Florida. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" was received on August 29, 2011.

II. Comments.

Comments were received from the applicant (CF Industries Inc.) and the DRAFT Permit was changed. The comments were not considered significant enough to reissue the DRAFT Permit and require another Public Notice. Listed below is each comment letter in the chronological order of receipt and a response to each comment in the order that the comment was received.

A. Email from Mr. Pradeep Raval with Koogler and Associates, Inc. (on behalf of the applicant, CF Industries Inc) received on August 26, 2011.

1. **Comment:** Statement of Basis, Page 2 of 5: For the Sulfur System, the railcar unloading pit should be added to the description, as reflected in the permit description on Page 41 of 50.

   Response: Railcar unloading pit was added to the description of the Sulfur Storage and Handling System in Statement of Basis.

2. **Comment:** Table of Contents, Page i: In the Appendix, should NSPS Subpart T be included OR should NSPS Subpart V also be removed?

   Response: It was determined that 40 CFR 60, Subpart V could be removed because the three emission units (E.U. Nos. 011, 012 and 013) that are subject to this regulation are also subject to 40 CFR 63, Subpart BB. 40 CFR 63, Subpart BB (Sec. 63.631) exempts these three emissions units from the requirements of 40 CFR 60, Subpart V. As a result of this comment, the item labeled "Appendix NSPS, Subpart V, Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants" was deleted from the Appendices.

3. **Comment:** Page 2 of 50, Paragraph 2: Please add back in the last sentence from the previous permit stating "If additional ..."

   Response: The sentence that was included in the previous Title V permit (0570005-032-AV) but was omitted from Draft Title V Permit 0570005-041-AV. As a result of this comment, the second paragraph of the "Section A. Facility Description" is hereby changed:

From:

This facility is classified as a major source (Title V source) of Nitrogen Oxides (NOx), Particulate Matter - PM10, Sulfur Dioxide (SO2), Fluorides (FL) and Sulfuric Acid Mist (SAM). Additionally, the Department has determined that this facility is a major source of hazardous air pollutants (HAPs), based upon its estimation of emissions of hydrogen fluoride.

To:

This facility is classified as a major source (Title V source) of Nitrogen Oxides (NOx), Particulate Matter - PM10, Sulfur Dioxide (SO2), Fluorides (FL) and Sulfuric Acid Mist (SAM). Additionally, the Department has determined that this facility is a major source of hazardous air pollutants (HAPs), based upon its estimation of emissions of hydrogen fluoride. If additional testing and modeling demonstrate: (1) that the facility is not and has never been a major source of hazardous air pollutants since at least June 10, 2002, or (2) if prospective changes to Subparts AA and BB warrant such an outcome, the Permittee shall have the right to request that the Department revise the determination of major source status and revise this permit to remove all requirements and conditions based on 40 CFR Part 63.

4. **Comment:** Page 3 of 50: Please confirm that for unregulated EU 099, there is no requirement for estimating/calculating the fugitive emissions. If there is, please limit it to HF, the pollutant of interest.

   Response: As a result of this comment, the following note was added to E.U. 099:

   Note: For this emissions unit, Annual Operation Report (AOR) emissions estimates are required only for the Hydrogen Fluoride emissions from the Phosphogypsum Stack and Cooling Pond.

5. **Comment:** Page 4 of 50: Should NSPS Subpart T be included OR should NSPS Subpart V also be removed?

   Response: It was determined that 40 CFR 60, Subpart V could be removed (see response to Comment 2). As a result of this comment, the regulation labeled "Appendix NSPS, Subpart V, Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants" was deleted from the Applicable Regulations table included under Subsection C.

6. **Comment:** Page 17 of 50, Specific Condition (SC) B.19: Please delete the last sentence "The excess emission report…" as it does not reflect rule language regarding excess emissions reports.

   Response: The rule reference for Specific Condition B.19. references Rules 62-296.402 and 62-4.070(3) F.A.C.; however, Sulfuric Acid Plants "B", "C" and "D" (E.U. Nos. 003, 004, and 008) are subject to the requirements of 40 CFR 60, Subparts H and A. The sentence in the specific condition that reads

   "The excess emission report shall also include a statement of all periods during the quarter when the sulfur dioxide monitoring system was inoperative, reason for the downtime and action taken."

   is based on applicable requirements contained in 40 CFR 60.7(c). As a result of this comment, the sentence was not deleted as requested; however, the rule reference below Specific Condition No. B.19 was updated to include the NSPS reference. Specific Condition No. B.19 is hereby changed:

From:

B.19. Quarterly SO_2 Excess Emissions Reports. A report shall be submitted to the Air Compliance Section of the Environmental Protection Commission of Hillsborough County (EPCHC) and the Department within 30 days following each calendar quarter detailing all periods of excess sulfur dioxide emissions recorded by the CEMS during that three month period. The report shall include the magnitudes of the excess emissions, the duration of each excess emission period, the cause of the abnormal event, and the action taken to correct it. The excess emission report shall also include a statement of all periods during the quarter when the sulfur dioxide monitoring system was inoperative, reason for the downtime and action taken.
[Rules 62-296.402(5) and 62-4.070(3), F.A.C.]

To:

B.19. Quarterly SO_2 Excess Emissions Reports. A report shall be submitted to the Air Compliance Section of the Environmental Protection Commission of Hillsborough County (EPCHC) and the Department within 30 days following each calendar quarter detailing all periods of excess sulfur dioxide emissions recorded by the CEMS during that three month period. The report shall include the magnitudes of the excess emissions, the duration of each excess emission period, the cause of the abnormal event, and the action taken to correct it. The excess emission report shall also include a statement of all periods during the quarter when the sulfur dioxide monitoring system was inoperative, reason for the downtime and action taken.
[Rules 62-296.402(5), 62-4.070(3) and 62-204.800, F.A.C.; 40 CFR 60.7(c)]

7. **Comment:** Pages 33 and 34 of 50: Based on SC E.13, it is recommended that SCs 10, 11 and 12 be removed. Plants X, Y and Z are subject to the provisions of NESHAP BB and the related AMP and so they are exempted from the provisions of NSPS Subpart V, as reflected by the rule language below.

"Sec. 63.631 Exemption from new source performance standards. Any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in 40 CFR part 60, subpart V, subpart W, or subpart X."

Response: The three emission units (E.U. Nos. 011, 012 and 013) are subject to and comply with to 40 CFR 63, Subpart BB. Therefore, based on 40 CFR 63.631 these emissions units are exempt from 40 CFR 60, Subpart V. Specific Condition Nos. E.10., E.11. and E.12. in the Draft permit can be removed because these conditions were derived from requirements contained in 40 CFR 60, Subpart V. As a result of this comment, Specific Condition Nos. E.10., E.11., E.12. were deleted and Specific Condition E.13. of the draft permit is hereby changed:

From:

E.13. When in compliance with all of the requirements of 40 CFR 63 Subpart BB, the X and Y Plants are exempted from the requirements of 40 CFR 60, Subpart V, in specific conditions **E.10., E.11.** and **E.12.** above.

{Permitting Note: This permit includes an Alternative Monitoring Plan that allows alternative monitoring requirements for 40 CFR 63, Subpart BB, the X and Y plants therefore may not be in cover all requirements contained in the subpart.}

[Rule 62-204.800(11), F.A.C.; and 40 CFR 63.631]

To:

E.10. When in compliance with all of the requirements of 40 CFR 63, Subpart BB, the X, Y and Z Plants are exempted from the requirements of 40 CFR 60, Subpart V. [Rule 62-204.800(11), F.A.C.; and 40 CFR 63.631]

8. **Comment:** Page 49 of 50: In the Appendix, should NSPS Subpart T be included OR should NSPS Subpart V also be removed?

   Response: It was determined that 40 CFR 60, Subpart V could be removed (see response to Comment 2). As a result of this comment, the item labeled "Appendix NSPS, Subpart V, Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants" was deleted from the Appendices included in Section IV of the permit.

B. Email from Mr. Pradeep Raval with Koogler and Associates, Inc. (on behalf of the applicant, CF Industries Inc) received on September 8, 2011.

1. **Comment:** Page 13 of 50, Specific Condition (SC) B.6: In keeping with the emissions limitation format, of lb/ton limits from BACTs and lb/hr limits from 034-AC (BART exemption), the SAM limit for SAP B should be 0.075 lb/ton (from 021-AC). The 0.027 lb/ton number in the Draft Permit from permit 034-AC is not a limit and is stated for informational purposes only.

   Response: After reviewing the limits in permit 0570005-021-AC, the SAM limit for SAP B (E.U. No. 003) should be 0.075 lb/ton as stated in the comment. As a result of this comment, Specific Condition No. B.6. for E.U. No. 003 is hereby changed:

   From:

   B.6. SAM Emissions Standard. The maximum allowable emission rates for SAM are as follows:

Sulfuric Acid Mist (SAM)			
E.U. No.	**Plant Name**	**Allowable Emissions Rate**	**Annual Allowable Emissions Rate**
003	"B" SAP	0.027 lb/ton of 100% H_2SO_4 Produced; {1.8 lbs/hr (each hour)}	7.9 tons/yr

   To:

   B.6. SAM Emissions Standard. The maximum allowable emission rates for SAM are as follows:

Sulfuric Acid Mist (SAM)			
E.U. No.	**Plant Name**	**Allowable Emissions Rate**	**Annual Allowable Emissions Rate**
003	"B" SAP	0.075 lb/ton of 100% H_2SO_4 Produced; {1.8 lbs/hr (each hour)}	7.9 tons/yr

2. **Comment:** Page 17 of 50, Specific Condition (SC) B.18 (d): This should reflect maximum 3-hr average lb/ton SO2 emission rate per B.5.

   Response: This request was revised by the applicant. Please see Item D.2. below

3. **Comment:** Page 17 of 50, Specific Condition (SC) B.18(e): In view of the recordkeeping associated with the more restrictive emissions limitation per Item (c), it is requested that the redundant and outdated Item (e) be deleted.

   Response: The condition is redundant and as a result of this comment, Specific Condition No. B.18.e. (which requires a *"maximum 24-hr. average SO2 emission rate for the "A" Sulfuric Acid Plant"*) is hereby deleted:

4. **Comment:** Page 17 of 50, Specific Condition (SC) B.18(f): This item should be deleted as there is no corresponding emissions limitation in B.5.

   Response: This request was revised by the applicant. Please see Item D.3. below.

C. Email from Mr. Ron Brunk with CF Industries Inc received on September 8, 2011.

Comment: The last column of the table in B.5 (page 12 of 50) is labeled "Consecutive 12-month rolling average based on CEMS data" doesn't quite match the numbers below (annual totals) or the cited condition B.11 "When demonstrating compliance with the 12-month rolling total, all valid…". I would suggest changing "average" to "total" in the label.

Response: The requested change is consistent with the language used in Specific Condition B.11. and is in-fact the correct heading. As a result of this comment, Specific Condition No. B.5., Table heading is hereby changed:

From:

Sulfur Dioxide (SO_2)			
E.U. No.	**Plant Name**	**Rolling/ block average based on CEMS data***	**Consecutive 12-month rolling average based on CEMS data***

To:

Sulfur Dioxide (SO_2)			
E.U. No.	**Plant Name**	**Rolling/ block average based on CEMS data***	**Consecutive 12-month rolling total based on CEMS data***

D. Email from Mr. Pradeep Raval with Koogler and Associates, Inc. (on behalf of the applicant, CF Industries Inc) received on September 14, 2011.

1. **Comment:** Page 17 of 50, Specific Condition (SC) B.18(c): This should reflect "daily (24-hour block) average SO_2 emission rate (in lbs/hr)."

Response: The applicant is requesting a minor revision of recordkeeping to reflect the new 24-hour block standards which have been added in Specific Condition No. B.5. As a result of this comment, Specific Condition No. B.18.c is hereby changed:

From:

B.18.c. daily average SO_2 emission rate (in lbs/ton of 100% H_2SO_4 produced);

To:

B.18.c. 24-hour (daily) block average SO_2 emission rate (in lbs/hr);

2. **Comment:** Page 17 of 50, Specific Condition (SC) B.18(d): As previously submitted, this should reflect "maximum 3-hr average SO_2 emission rate (in lb/ton)."

   Response: The applicant is requesting clarification in the recordkeeping condition by adding "lb/ton" to the Specific Condition. As a result of this comment, Specific Condition No. B.18.d is hereby changed:

   From:

   B.18.d. maximum 3-hr. average SO_2 emission rate;

   To:

   B.18.d. maximum 3-hr. average SO_2 emission rate (in lbs/ton of 100% H_2SO_4 produced);

3. **Comment:** Page 17 of 50, Specific Condition (SC) B.18(f): This should reflect "monthly SO_2 emissions (in tons)"

   Response: This change (combined with Specific Condition No. B.18.g of the draft permit) is useful for demonstrating compliance with the 12-month rolling totals of Specific Condition No. B.5. As a result of this comment, Specific Condition No. B.18.f is hereby changed:

   From:

   B.18.f. monthly average SO_2 emission (in lbs/ton of 100% H_2SO_4 produced); and

   To:

   B.18.e. total SO_2 emission (in tons) for the most recent month; and

E. Email from Mr. Ron Brunk with CF Industries Inc received on September 20, 2011.

Comment: Would it be possible to consolidate the requirement of E.19.e.1&2 into one like D.15?

Response: The requested change makes the requirement clear and easier to understand. As a result of this comment, Specific Condition No. E.19.e of the draft permit is hereby changed:

From:

E.19.e. An area on the log shall indicate:

1) the current allowable P_2O_5 input rate:

2) the rate at which the last compliance test was conducted plus 10%, or the P_2O_5 input rate limit from Condition E.1., whichever rate is lower.

To:

E.16.e. An area on the log shall indicate the current allowable P_2O_5 input rate (the rate at which the last compliance test was conducted plus 10%, or the P_2O_5 input rate limit from Condition E.1., whichever rate is lower).

III. Conclusion.

The permitting authority hereby issues the PROPOSED Permit, with any changes noted above.