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March 20, 2007

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Florida Department of Environmental Protection
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

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BUREAU OF AIR REGULATION

Attention: Deborah Nelson

**RE: CF INDUSTRIES INC., PLANT CITY PHOSPHATE COMPLEX
FDEP FILE NO. 0570005-021-AC; PSD-FL 355
'B' SULFURIC ACID PLANT & 'A' AND 'B' PHOSPHORIC ACID PLANTS
PRODUCTION INCREASE
REQUEST FOR ADDITIONAL INFORMATION**

Dear Ms. Nelson:

CF Industries (CFI) received a request for additional modeling-related information from the Florida Department of Environmental Protection (FDEP) dated March 12, 2007, regarding the 'B' Sulfuric Acid Plant (B-SAP) and 'A' and 'B' Phosphoric Acid Plants (A-PAP and B-PAP, respectively) production increase project at the Plant City Phosphate Complex. Each of the FDEP's requests is answered below, in the same order as they appear in the letter.

Comment 1. The letter dated January 11, 2007 from Golder Associates, Comment 3, states that the stack heights for "X", "Y", and "Z" DAP/MAP plants have been revised to be 180 ft. The modeling submitted for sulfur dioxide still shows stack height inputs of 136 ft (at least for the year 2001). Please correct.

Response: The modeling runs for sulfur dioxide (SO₂) have been corrected using 180-foot stack heights for the "X", "Y", and "Z" DAP/MAP plants. Tables I-1 through I-4 of the request for additional information (RAI) response package dated January 11, 2007, showing the SO₂ ambient air quality standard (AAQS) and prevention of significant deterioration (PSD) Class II increment consumption results have been revised and are attached.

Comment 2. As part of the January 11, 2007 response, modeling for PM₁₀ was completed with new emission rates. The PM₁₀ Class II PSD Increment analysis was submitted to the Department, which showed slightly higher impacts than prior analyses. Please provide the revised highest predicted impact for the Ambient Air Quality Analysis as well.

Response: The Ambient Air Quality Analysis for PM₁₀ has been completed and the results are presented in the attached Table C-2. The highest, sixth-highest 24-hour average PM₁₀ impact was predicted to be 39.4 micrograms per cubic meter (µg/m³) for the proposed project. The total 24-hour

average PM₁₀ impact was predicted to be 76.4 µg/m³ including a background concentration of 37 µg/m³.

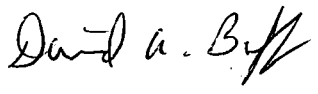
Comment 3. Table 6-15 was submitted with the January 11, 2007 response. Please provide the associated updated electronic BPIP modeling files.

Response: The electronic building downwash modeling files are sent via e-mail.

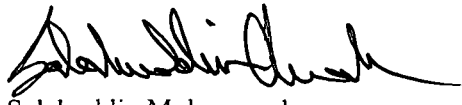
Thank you for consideration of this information. The electronic files for the revised SO₂ modeling and the PM₁₀ Ambient Air Quality Analysis are sent via e-mail. If you have any questions, please do not hesitate to call me at (352) 336-5600.

Sincerely,

GOLDER ASSOCIATES INC.



David A. Buff, P.E., Q.E.P.
Principal



Salahuddin Mohammad
Project Engineer

DB/all

Enclosures

cc: Tom Edwards, CF Industries
Bob May, CF Industries

Y:\Projects\2006\0637647 CF Industries\4.1\RAI March 2007\RAI 031907-647.doc

cc: J. Corp
EPCORC
SWD
EPA
NPS

**APPENDIX C-1
 MAXIMUM PREDICTED PM₁₀ IMPACTS USING LATEST TAMPA MET DATASET --
 PSD CLASS II INCREMENT ANALYSES**

Pollutant, Averaging Time, and Rank	Concentration ^a (µg/m ³)	Receptor Location ^b		Time Period (YYMMDDHH)
		X (m)	Y (m)	
24-Hour, HSH	28.4	-427	573	01120824
	28.4	-427	573	02111124
	29.9	-427	573	03030724
	26.2	-427	573	04090824
	24.9	-378	573	05012624

Note: YYMMDDHH = Year, Month, Day, Hour Ending
 HSH = Highest, Second-Highest

^a Concentrations are based on highest concentrations predicted using 5 years of surface and upper air meteorological data for 2001 to 2005 from the National Weather Service stations at Tampa and Ruskin, respectively.

^b Relative to the "C" SAP stack location.

**TABLE C-2
MAXIMUM PREDICTED PM₁₀ IMPACTS USING LATEST TAMPA MET DATASET -- AAQS ANALYSES**

Pollutant, Averaging Time, and Rank	Concentration (µg/m ³) ^a			Receptor Location ^b		Time Period (YYMMDDHH)	National AAQS (µg/m ³)	Florida AAQS (µg/m ³)
	Total	Modeled Sources	Background	X (m)	Y (m)			
<u>Annual Average</u>								
Highest	27.8	5.8	22	-427	573	01123124	50	50
Highest	28.0	6.0	22	-427	573	02123124		
Highest	29.2	7.2	22	-427	573	03123124		
Highest	28.4	6.4	22	-378	573	04123124		
Highest	27.8	5.8	22	-427	573	05123124		
<u>24-Hour Average</u>								
H6H	76.4	39.4	37	-427	573	03081124	150	150

Note: YYMMDDHH = Year, Month, Day, Hour Ending
H6H = Highest, Sixth-Highest

^a Concentrations are based on highest concentrations predicted using 5 years of surface and upper air meteorological data for 2001 to 2005 from the National Weather Service stations at Tampa and Ruskin, respectively.

^b Relative to the "C" SAP stack location.

**TABLE I-1 (Revised 031607)
MAXIMUM PREDICTED SO₂ IMPACTS - AAQS SCREENING ANALYSES**

Pollutant, Averaging Time, and Rank	Concentration ^a (µg/m ³)	Receptor Location ^b		Time Period (YYMMDDHH)
		X (m)	Y (m)	
Annual, Highest	34.8	-573	573	01123124
	36.8	-476	573	02123124
	41.5	-378	573	03123124
	37.0	-476	573	04123124
	34.7	-378	573	05123124
24-Hour, HSH	198.2	-671	573	01101324
	243.9	-280	573	02082824
	201.3	-476	573	03081224
	222.6	18	585	04112424
	210.9	-427	573	05112824

Note: YYMMDDHH = Year, Month, Day, Hour Ending
 HSH = Highest, Second-Highest
 H6H = Highest, Sixth-Highest

^a Concentrations are based on highest concentrations predicted using 5 years of surface and upper air meteorological data for 2001 to 2005 from the National Weather Service stations at Tampa and Ruskin, respectively.

^b Relative to the "C" SAP stack location.

**TABLE I-2 (Revised 031607)
MAXIMUM PREDICTED SO₂ IMPACTS FOR COMPARISON TO AAQS - REFINED ANALYSES**

Pollutant, Averaging Time, and Rank	Concentration (µg/m ³) ^a			Receptor Location ^b		Time Period (YYMMDDHH)	National AAQS (µg/m ³)	Florida AAQS (µg/m ³)
	Total	Modeled Sources	Background	X (m)	Y (m)			
Annual, Highest	46.8	41.5	5.3	-378	573	03123124	80	60
24-Hour, HSH	256.9	243.9	13	-280	573	02082824	365	260

Note: YYMMDDHH = Year, Month, Day, Hour Ending
 HSH = Highest, Second-Highest
 H6H = Highest, Sixth-Highest

^a Concentrations are based on highest concentrations predicted using 5 years of surface and upper air meteorological data for 2001 to 2005 from the National Weather Service stations at Tampa and Ruskin, respectively.

^b Relative to the "C" SAP stack location.

**TABLE I-3 (Revised 031607)
MAXIMUM PREDICTED SO₂ IMPACTS --
PSD CLASS II INCREMENT SCREENING ANALYSES**

Pollutant, Averaging Time, and Rank	Concentration ^a (µg/m ³)	Receptor Location ^b		Time Period (YYMMDDHH)
		X (m)	Y (m)	
Annual, Highest	0.0	0	0	01123124
	0.0	0	0	02123124
	0.0	0	0	03123124
	0.0	0	0	04123124
	0.0	0	0	05123124
24-Hour, HSH	17.8	-1,256	573	01081124
	17.5	-183	585	02071824
	26.4	-700	800	03060524
	14.6	1,500	1,100	04062124
	21.0	-1,800	-2,000	05061524

Note: YYMMDDHH = Year, Month, Day, Hour Ending
HSH = Highest, Second-Highest

^a Concentrations are based on highest concentrations predicted using 5 years of surface and upper air metdata for 2001 to 2005 from the National Weather Service stations at Tampa and Ruskin, respectively.

^b Relative to the "C" SAP stack location.

**TABLE I-4 (Revised 031607)
MAXIMUM PREDICTED SO₂ IMPACTS FOR COMPARISON TO
THE PSD CLASS II INCREMENTS - REFINED ANALYSES**

Pollutant, Averaging Time, and Rank	Concentration ^a ($\mu\text{g}/\text{m}^3$)	Receptor Location ^b		Time Period (YYMMDDHH)	PSD Class II Increment ($\mu\text{g}/\text{m}^3$)
		Direction (m)	Distance (m)		
Annual, Highest	0.0	0	0	01123124	20
24-Hour, HSH	26.5	-700	800	03060524	91

Note: YYMMDDHH = Year, Month, Day, Hour Ending
HSH = Highest, Second-Highest

^a Concentrations are based on highest concentrations predicted using 5 years of surface and upper air meteorological data for 2001 to 2005 from the National Weather Service stations at Tampa and Ruskin, respectively.

^b Relative to the "C" SAP stack location.