

November 10, 2010

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AIR REGULATION

Ms. Trina L. Vielhauer, Chief  
Bureau of Air Regulations  
Florida Department of Environmental Protection  
Division of Air Resources Management  
2600 Blair Stone Road, MS 5505  
Tallahassee, FL 32399-2400

SUBJECT: CF Industries, Inc. - Plant City Phosphate Complex  
Ambient Fluoride Monitoring Data  
Air Permit Nos. PSD-FL-355 and 0570005-021-AC

Dear Ms. Vielhauer:

In accordance with Air Permit Nos. PSD-FL-355 and 0570005-021-AC, Section III, Subsection C., "Monitoring and Testing Requirements," Condition 23, attached is the required ambient fluoride monitoring data [i.e., six months of preconstruction data (Attachment 1) and one year of post-construction data (Attachment 2)]. Please note that the ambient fluoride monitor was installed prior to the January 1, 2009, deadline contained in the permit, and the preconstruction data was collected over approximately 8 months.

Please contact Michael Messina at 813/364-5639 with any questions regarding this submittal.

Sincerely,



Ronald L. Brunk,  
Superintendent, Environmental Affairs

RLB/JMM/lh

cc with Attachments:

Pradeep Raval/Koogler & Associates, Inc.

J. Waters, HCEPC

D. Henry, FDEP

R. C. May

A. R. Normand

J. M. Messina/File

P. A. Stege

ATTACHMENT 1  
CF PRE-CONSTRUCTION AMBIENT GASEOUS FLUORIDES  
MONITORING  
OCTOBER 25, 2007 – JUNE 3, 2008

CF Pre-Construction Ambient Gaseous Fluorides Monitoring

Formula Source > Air Pollution Source Testing												
Collection Date	Sample #	Sample minus Blank	Meter Reading	Actual Flow	Time	m <sup>3</sup> /min	Temp	Pressure	ppbv	Comments	Production Rates (TPD)	
		ug F	L/Min	L/Min	hrs	ppbv	°F	in Hg	corr for T & P		A PAP	B PAP
<b>Pembroke Method Detection Limit (MDL)</b>		1	15.0	12.7	24	0.068	60.0	29.93	0.068 *	* ppbv @ 60oF and 29.93 in Hg		
10/25/2007	1	<1	15.0	12.7	24	<0.068	71.9	29.87	<0.066	Analyzed by Pembroke; MDL = 1 ug	1087	2139
10/31/2007	2	<1	15.0	12.7	24	<0.068	75.2	30.08	<0.066	Pembroke	949	1429
11/7/2007	3	<1	15.0	12.7	24	<0.068	66.6	30.09	<0.067	Equipment malfunction on 11/6 no flow, sampled 11/7 instead; Pembroke	747	1397
11/12/2007	4	<1	15.0	12.7	24	<0.068	66.4	30.21	<0.068	Pembroke	1302	1997
<b>Thornton Method Detection Limit (MDL)</b>		0.10	15.0	12.7	24	0.007	60.0	29.93	0.007 *	* ppbv @ 60oF and 29.93 in Hg		
11/18/2007	5	<0.10	15.0	12.7	24	<0.007	60.8	30.15	<0.007	Began using Thornton Labs, MDL = 0.10 ug, factor of 10 lower than Pembroke	1064	1753
11/24/2007	6	<0.10	15.0	12.7	24	<0.007	60.8	30.15	<0.007	Thornton	895	1928
11/30/2007	7	<0.10	15.0	12.7	24	<0.007	73.1	30.15	<0.007	Thornton	1277	1744
12/6/2007	8	0.16	15.0	12.7	24	0.011	60.2	29.95	0.011	Thornton	1089	1547
12/12/2007	9	0.82	15.0	12.7	24	0.056	73.0	30.25	0.054	Thornton	1160	1299
12/18/2007	10	0.08	15.0	12.7	24	0.005	46.2	30.29	0.006	Thornton	1048	1638
<b>New Flow</b>		0.10	15.0	11.3	24	0.008	60.0	29.93	0.008 *	* ppbv @ 60oF and 29.93 in Hg		
12/24/2007	11	<0.10	15.0	11.3	24	<0.008	66.6	30.13	<0.008	Thornton	1357	2235
12/30/2007	12	0.19	15.0	11.3	24	0.015	73.0	30.12	0.014	Thornton	1143	1909
1/5/2008	13	0.16	15.0	11.3	24	0.012	54.7	30.50	0.013	Thornton	1248	1028
1/11/2008	14	0.15	15.0	11.3	24	0.011	69.2	30.04	0.011	Thornton	1367	2129
1/17/2008	15	0.37	15.0	11.3	24	0.028	66.5	30.02	0.028	Thornton	830	1690
1/23/2008	16	0.75	15.0	11.3	24	0.057	71.9	30.16	0.056	Thornton	965	1645
1/29/2008	17	<0.10	15.0	11.3	24	<0.008	52.3	30.17	<0.008	Thornton	1308	1765
2/4/2008	18	0.21	15.0	11.3	24	0.016	74.3	30.21	0.016	Thornton	1311	2191
<b>New Flow</b>		0.10	20.0	13.6	24	0.006	60.0	29.93	0.006 *	* ppbv @ 60oF and 29.93 in Hg		
2/10/2008	19	<0.10	20.0	13.6	24	<0.006	51.6	30.17	<0.007	Thornton	10	2105
2/16/2008	20	0.36	20.0	13.6	24	0.023	65.2	30.22	0.023	Thornton		2024
2/22/2008	21	0.37	20.0	13.6	24	0.024	71.9	30.07	0.023	Thornton		1852
2/28/2008	22	<0.10	20.0	13.6	24	<0.006	49.1	30.37	<0.007	Thornton	975	
3/5/2008	23	0.44	20.0	13.6	24	0.028	71.9	29.97	0.027	Thornton	1033	1592
3/11/2008	24	0.51	20.0	13.6	24	0.032	67.2	30.25	0.032	Thornton	1224	1575
3/18/2008	25	1.2	20.0	13.6	24	0.076	71.4	30.26	0.075	Thornton, sampler turned on a day late.	1484	1868
3/23/2008	26	0.45	20.0	13.6	24	0.029	68.3	30.00	0.028	Thornton	1127	1631
3/29/2008	27	0.42	20.0	13.6	24	0.027	69.2	30.08	0.026	Thornton	1377	1903
4/4/2008	28	0.24	20.0	13.6	24	0.015	75.3	30.12	0.015	Thornton	1138	2062
4/10/2008	29	0.42	20.0	13.6	24	0.027	75.9	30.08	0.026	Thornton	1014	1532
4/16/2008	30	0.06	20.0	13.6	24	0.004	56.5	30.15	0.004	Thornton	1341	2250
4/22/2008	31	0.09	20.0	13.6	24	0.006	72.8	29.96	0.006	Thornton	1164	2316
4/30/2008	32	0.03	20.0	13.6	24	0.002	70.5	30.04	0.002	Thornton	1188	1744
5/4/2008	33	0.31	20.0	13.6	24	0.020	78.5	30.03	0.019	Thornton	1118	1763
5/11/2008	34	0.13	20.0	13.6	24	0.008	82.0	29.93	0.008	Thornton, sampler turned on a day late.	1579	2555
5/16/2008	35	0.17	20.0	13.6	24	0.011	78.3	30.04	0.010	Thornton	1506	2331
5/22/2008	36	0.14	20.0	13.6	24	0.009	83.1	29.84	0.008	Thornton	1377	1472
5/28/2008	37	0.18	20.0	13.6	24	0.011	77.8	30.04	0.011	Thornton	1411	1944
6/3/2008	38	0.21	20.0	13.6	24	0.013	79.9	30.01	0.013	Thornton	1188	2056

AMENDED VALUE - Value amended following the recalibration of the sampling equipment's flow meter.

ATTACHMENT 2  
CF POST-CONSTRUCTION AMBIENT GASEOUS FLUORIDES  
MONITORING  
OCTOBER 2, 2009 – SEPTEMBER 27, 2010

Post Construction Ambient Gaseous Fluorides Monitoring

Formula Source > Air Pollution Source Testing													
Collection Date	Sample #	Sample minus Blank ug F	Meter Reading L/Min	Actual Flow L/Min	Time hrs	m <sup>3</sup> /min ppbv	Temp °F	Pressure in Hg	ppbv corr for T & P	Comments	Production Rates (TPD)		
New Flow	New Permit	0.10	18.0	12.6	24	0.007	60.0	29.93	0.007 *	* ppbv @ 60oF and 29.93 in Hg	A PAP	B PAP	
10/2/2009	1	0.45	18.0	12.6	24	0.031	71.8	29.98	0.030	Thornton	609	1852	
10/8/2009	2	0.25	18.0	12.6	24	0.017	82.0	30.09	0.016	Thornton	1143	1876	
10/14/2009	3	0.47	18.0	12.6	24	0.032	82.9	30.05	0.030	Thornton	573	501	
10/20/2009	4	0.33	18.0	12.6	24	0.023	62.9	30.19	0.023	Thornton; Blank & Sample reversed	990	508	
10/26/2009	5	0.10	18.0	12.6	24	0.007	68.6	29.99	0.007	Thornton; Blank & Sample reversed	990	2042	
11/1/2009	6	0.49	18.0	12.6	24	0.034	79.0	29.97	0.032	Thornton	1313	2010	
11/7/2009	7	0.43	18.0	12.6	24	0.030	68.7	30.19	0.029	Thornton	1220	2092	
11/13/2009	8	0.13	18.0	12.6	24	0.009	58.4	29.84	0.009	Thornton	998	2173	
11/19/2009	9	0.30	18.0	12.6	24	0.021	70.3	30.07	0.020	Thornton	1018	1828	
11/25/2009	10	0.43	18.0	12.6	24	0.030	72.5	30.04	0.029	Thornton	1193	2007	
12/1/2009	11	0.23	18.0	12.6	24	0.016	66.5	30.01	0.016	Thornton	1258	2025	
12/9/2009	12	0.29	18.0	12.6	24	0.020	75.1	30.12	0.019	Thornton	1217	2134	
12/13/2009	13	0.49	18.0	12.6	24	0.034	58.4	29.84	0.034	Thornton	1315	2109	
12/19/2009	14	0.34	18.0	12.6	24	0.023	70.3	30.07	0.023	Thornton	1525	2011	
12/25/2009	15	0.61	18.0	12.6	24	0.042	71.7	29.93	0.041	Thornton	1023	2171	
12/31/2009	16	0.20	18.0	12.6	24	0.014	61.1	30.22	0.014	Thornton	1170	1772	
1/6/2010	17	<0.10	18.0	12.6	24	<0.007	38.8	30.24	<0.007	Thornton	984	1596	
1/12/2010	18	<0.10	18.0	12.6	24	<0.007	38.6	30.41	<0.007	Thornton	1208	1784	
1/18/2010	19	0.15	18.0	12.6	24	0.010	65.2	29.98	0.010	Thornton	983	980	
1/24/2010	20	0.61	18.0	12.6	24	0.042	69.7	29.95	0.041	Thornton	1004	1692	
1/30/2010	21	0.32	18.0	12.6	24	0.022	66.1	30.04	0.022	Thornton	998	1776	
2/5/2010	22	0.65	18.0	12.6	24	0.045	67.3	30.05	0.044	Thornton	1340	2148	
2/11/2010	23	<0.10	18.0	12.6	24	<0.007	45.8	30.07	<0.007	Thornton	606	1065	
2/17/2010	24	<0.10	18.0	12.6	24	<0.007	46.9	30.09	<0.007	Thornton	983	2074	
2/23/2010	25	0.10	18.0	12.6	24	0.007	70.4	29.77	0.007	Thornton	1255	1649	
3/1/2010	26	0.10	18.0	12.6	24	0.007	50.7	30.04	0.007	Thornton	1276	1940	
3/7/2010	27	0.02	18.0	12.6	24	0.001	50.9	30.22	0.001	Thornton	1341	1909	
3/16/2010	28*	0.11	18.0	12.6	24	0.008	62.6	29.69	0.007	Thornton	1282	1997	
3/19/2010	29	0.10	18.0	12.6	24	0.007	56.7	30.00	0.007	Thornton	1250	1740	
3/25/2010	30	<0.10	18.0	12.6	24	<0.007	66.1	30.10	<0.007	Thornton	496	1903	
3/31/2010	31	<0.10	18.0	12.6	24	<0.007	60.3	30.06	<0.007	Thornton	1261	1711	
4/6/2010	32	0.76	18.0	12.6	24	0.052	71.7	30.20	0.051	Thornton	966		
4/13/2010	33*	0.58	18.0	12.6	24	0.040	70.7	30.14	0.039	Thornton		2206	
4/18/2010	34	0.53	18.0	12.6	24	0.036	73.1	29.98	0.035	Thornton	1242	2134	
4/28/2010	35*	0.15	18.0	12.6	24	0.010	68.3	29.89	0.010	Thornton	1152	1892	
4/30/2010	36	0.29	18.0	12.6	24	0.020	73.7	30.04	0.019	Thornton	1029	1875	
5/6/2010	37	0.16	18.0	12.6	24	0.011	80.3	30.00	0.010	Thornton	1305	1673	
5/12/2010	38	0.66	18.0	12.6	24	0.045	78.2	30.19	0.043	Thornton	1380	2206	
5/18/2010	39	0.32	18.0	12.6	24	0.022	76.8	30.00	0.021	Thornton		1961	
5/24/2010	40	1.40	18.0	12.6	24	0.096	81.0	30.00	0.091	Thornton	1168	2111	
5/30/2010	41	0.63	18.0	12.6	24	0.043	77.7	29.88	0.041	Thornton	1264	2324	
6/5/2010	42	0.08	18.0	12.6	24	0.006	83.7	29.84	0.005	Thornton	1175	2412	
6/11/2010	43	0.68	18.0	12.6	24	0.047	84.3	29.90	0.044	Thornton	1082	2149	
6/17/2010	44	0.52	18.0	12.6	24	0.036	83.0	30.08	0.034	Thornton			
6/23/2010	45	1.40	18.0	12.6	24	0.096	85.4	30.12	0.090	Thornton	1363	1744	
6/29/2010	46	0.53	18.0	12.6	24	0.036	83.5	29.97	0.034	Thornton	1180	1979	
7/5/2010	47	0.54	18.0	12.6	24	0.037	76.9	30.05	0.035	Thornton	1259	2215	
7/11/2010	48	0.25	18.0	12.6	24	0.017	83.5	30.02	0.016	Thornton	1265	2065	
7/20/2010	49*	1.31	18.0	12.6	24	0.090	86.5	30.08	0.084	Thornton	972	2089	
7/23/2010	50	1.82	18.0	12.6	24	0.125	86.3	30.08	0.117	Thornton	1213	1644	
7/29/2010	51	0.28	18.0	12.6	24	0.019	84.3	30.10	0.018	Thornton	583	2015	
8/4/2010	52	0.31	18.0	12.6	24	0.021	84.1	30.04	0.020	Thornton	935	1842	
8/10/2010	53	2.05	18.0	12.6	24	0.141	83.1	29.92	0.132	Thornton	1378	2205	
8/16/2010	54	0.09	18.0	12.6	24	0.006	86.2	29.97	0.006	Thornton	954	1621	
8/22/2010	55	<0.10	18.0	12.6	24	<0.007	82.9	29.98	<0.006	Thornton	656	1485	
8/28/2010	56	0.29	18.0	12.6	24	0.020	80.9	30.02	0.019	Thornton	1330	2224	
9/2/2010	57*	0.46	18.0	12.6	24	0.032	80.7	29.93	0.030	Thornton	590	1185	
9/9/2010	58	0.52	18.0	12.6	24	0.036	83.0	30.01	0.034	Thornton	1230	2249	
9/15/2010	59	0.85	18.0	12.6	24	0.058	80.8	30.03	0.055	Thornton	1178	2254	
9/21/2010	60	0.63	18.0	12.6	24	0.043	80.4	30.01	0.041	Thornton	1294	2293	
9/27/2010	61	1.91	18.0	12.6	24	0.131	82.0	29.86	0.123	Thornton	1235	2038	

\*Sampled late