

CF Industries  
Plant City Phosphate Complex  
Plant City, Florida 33564

P.O. Drawer L → Greg  
Plant City, Florida 33564-9007  
Telephone: 813/782-1591 → Greg



**CF Industries, Inc.**  
Plant City Phosphate Complex

January 23, 2007

Ms. Trina Vielhauer  
Chief, Bureau of Air Regulations  
Department of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

**RECEIVED**

JAN 25 2007

BUREAU OF AIR REGULATION

**Subject:** CF Industries, Inc.  
Plant City Phosphate Complex  
Permit No. 0570005-017AV  
"C" & "D" Sulfuric Acid Plant  
Fourth Quarter 2006 SO<sub>2</sub> CEM/Production Data

Dear Ms. Vielhauer:

In accordance with Specific Condition, "Subsection B.20." contained in the facility Title V Air Permit No. 0570005-017 AV, enclosed is the Fourth Quarter 2006, SO<sub>2</sub> and Production Data from the "C" & "D" Sulfuric Acid Plants.

If you have any questions concerning this submittal please contact Michael Messina at (813) 364-5639.

Sincerely,

*Thomas A. Edwards*  
Thomas A. Edwards  
Superintendent, Environmental  
Affairs

U:\2006C&DFourthQCEMProduction.doc  
TAE/JMM/gem

CC: Mara Nasca/FDEP  
Diana Lee/HCEPC  
J. M. Messina

INSTRUMENT MAINTENANCE PROCEDURE  
A & B SAP

39556-G

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ASSIGNED TO: Mark Donnald

DATE: 11/18/05

EMISSION TEST GAS SPAN TEST  
CRITICAL PM QUARTERLY (8 Hours)

PRIOR TO TEST, order the following concentrations of test gas.

3.5 % O<sub>2</sub>; 5 % O<sub>2</sub>; 10% % O<sub>2</sub>, BALANCE NITROGEN

250 PPM SO<sub>2</sub>; 550 PPM SO<sub>2</sub>; 900 PPM SO<sub>2</sub> BALANCE NITROGEN

O<sub>2</sub> and SO<sub>2</sub> bottles to be tested should be in place with regulators and tubing hooked up to sample line to enable switching from one gas bottle to the next without disconnecting.

TEST PROCEDURE

1. Start test as you would an ordinary emissions span test in period 8 or 16 on the Ametek Analyzer. This test procedure MUST be done three (3) times and the results averaged.
  - a. Beginning with the lowest O<sub>2</sub> concentration test gas, open the valve. At period 18, the O<sub>2</sub> will start sampling.
  - b. Stop the timer at this point by arrowing down on analyzer display to "stop timer." Enter "5"; enter password "2222." Allow the reading to stabilize for five (5) minutes.
  - c. Close the low O<sub>2</sub> gas valve and open the medium concentration O<sub>2</sub> gas valve and allow this reading to stabilize, again, at approximately five (5) minutes.
  - d. Close the medium O<sub>2</sub> gas valve and open the high concentration O<sub>2</sub> gas valve.
  - e. Start the analyzer timer, close the high O<sub>2</sub> valve when the sampling period ends.
  - f. Open the low concentration SO<sub>2</sub> valve. Sampling of SO<sub>2</sub> begins at period 20.
  - g. Stop the timer again for stabilization (5 minutes).
  - h. Close the low SO<sub>2</sub> valve and open the medium concentration SO<sub>2</sub> valve. Allow 5 minutes for stabilization.
  - i. Close the medium SO<sub>2</sub> valve and open the high concentration SO<sub>2</sub>. Start timer, allow analyzer to time out.
  - j. Push Flush/Zero button to exit calibration mode.
2. At the WDPF console, open the SO<sub>2</sub>/O<sub>2</sub> Trends. Right "click" on GROUPS, right "click" on DISPLAY. Left "click" on HISTORICAL TRENDS. Change Start/Stop time to cover test period time. Record stabilized reading results, test time and any other pertinent information in the SO<sub>2</sub> book and on the following page.

Approved By: Superintendent Environmental Affairs

Date: 11/17/05

F:\doc\pm\_ins\39560-E 1/26/05 Rev. 1 Approved By: GAD/swP

Date: 11-15-05

INSTRUMENT MAINTENANCE PROCEDURE  
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BEGIN TIME:  
10:05 AM

OXYGEN TEST 1

Requested Concentration Oxygen	Actual Concentration Oxygen	Yokogawa Analyzer Display	WDPF Reading
3.5%	3.52 %	3.12 %	3.149 %
5.0%	5.0 %	4.51 %	4.538 %
10.0%	10.0 %	9.57 %	9.596 %

OXYGEN TEST 2

Requested Concentration Oxygen	Actual Concentration Oxygen	Yokogawa Analyzer Display	WDPF Reading
3.5%	3.52 %	3.14 %	3.157 %
5.0%	5.0 %	4.49 %	4.507 %
10.0%	10.0 %	9.45 %	9.482 %

OXYGEN TEST 3

Requested Concentration Oxygen	Actual Concentration Oxygen	Yokogawa Analyzer Display	WDPF Reading
3.5%	3.52 %	3.12 %	3.142 %
5.0%	5.0 %	4.49 %	4.507 %
10.0%	10.0 %	9.46 %	9.489 %

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SO<sub>2</sub> TEST 1

Requested Concentration SO <sub>2</sub>	Actual Concentration SO <sub>2</sub>	Ametek Analyzer Display	WDPF Reading
250PPM	253 PPM	255.20 PPM	255.676 PPM
550PPM	532 PPM	535.10 PPM	535.217 PPM
900PPM	905 PPM	886.57 PPM	887.695 PPM

SO<sub>2</sub> TEST 2

Requested Concentration SO <sub>2</sub>	Actual Concentration SO <sub>2</sub>	Ametek Analyzer Display	WDPF Reading
250PPM	253 PPM	264.84 PPM	263.00 PPM
550PPM	532 PPM	535.36 PPM	535.828 PPM
900PPM	905 PPM	893.96 PPM	893.104 PPM

SO<sub>2</sub> TEST 3

END TIME:

12:15 PM

Requested Concentration SO <sub>2</sub>	Actual Concentration SO <sub>2</sub>	Ametek Analyzer Display	WDPF Reading
250PPM	253 PPM	266.41 PPM	261.780 PPM
550PPM	532 PPM	535.10 PPM	537.964 PPM
900PPM	905 PPM	891.99 PPM	892.883 PPM

INSTRUMENT MAINTENANCE PROCEDURE  
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AVERAGES

Requested Concentration Oxygen	Actual Concentration Oxygen	Yokogawa Analyzer Display	WDPF Reading
3.5%	3.52 %	3.126 %	3.147 %
5.0%	5.0 %	4.496 %	4.517 %
10.0%	10.0 %	9.493 %	9.522 %

Requested Concentration SO2	Actual Concentration SO2	Ametek Analyzer Display	WDPF Reading
250PPM	253 PPM	260.15 PPM	260.152 PPM
550PPM	532 PPM	535.18 PPM	536.336 PPM
900PPM	905 PPM	890.84 PPM	891.227 PPM

TEST GAS

Requested Concentrations	Actual Test Gas	Bottle Serial Number
3.5% Oxygen	3.52	CC10398
5.0% Oxygen	5.00	CC55137
10.0% Oxygen	10.00	CC181782
250 PPM SO2	253	CC128881
550 PPM SO2	532	CC148444
900 PPM SO2	905	CC54871

NOTES AND COMMENTS OF INSPECTION

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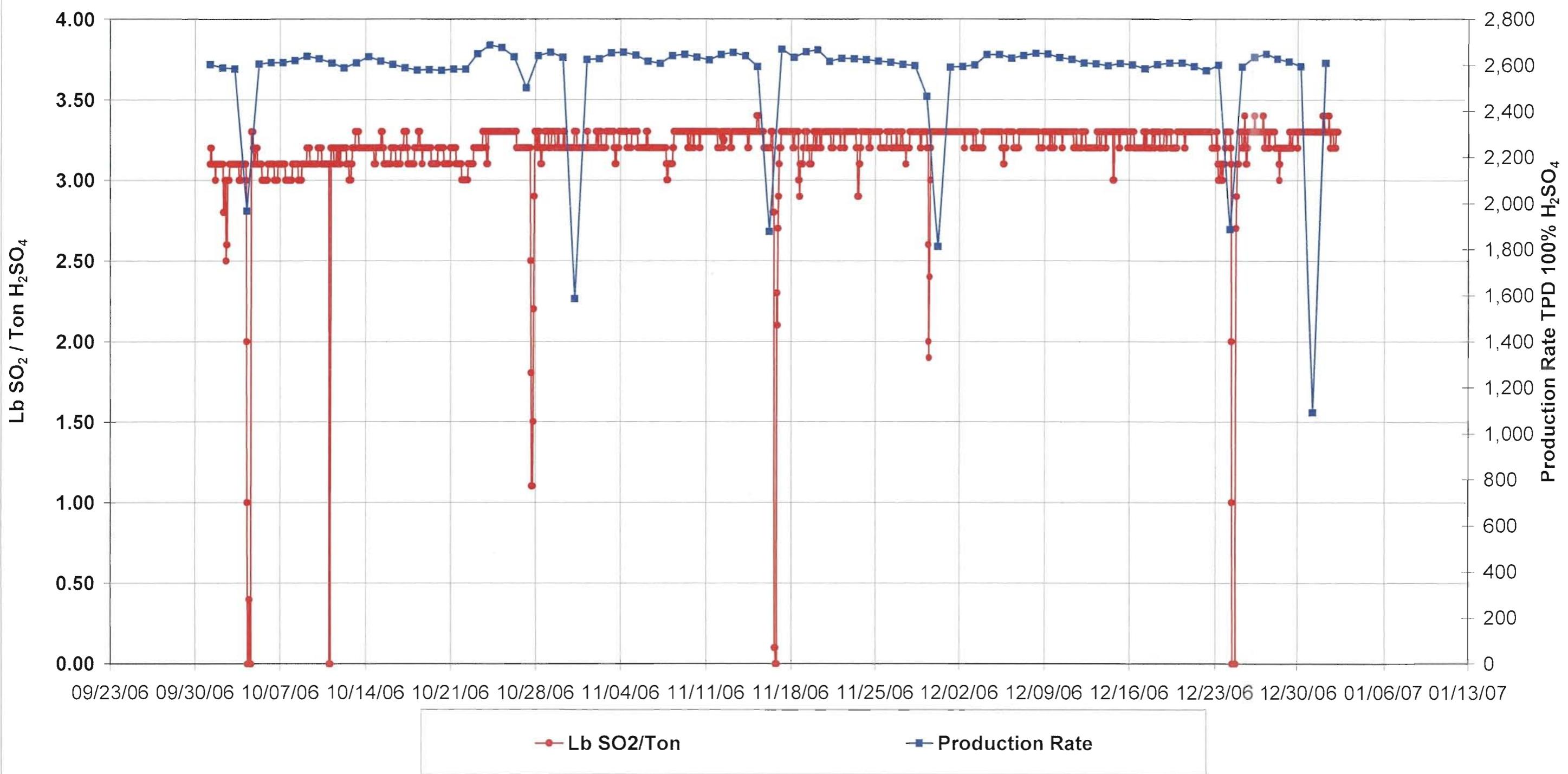
Completed By: Wm. C. S. Date: 11/17/05  
(Mechanic's Signature)

Reviewed By: DwPenny Date: 11.20.05  
(Supervisor's Signature)





CF Industries Plant City Phosphate Complex  
C-SAP Quarterly Report (4th Quarter 2006) Hourly CEM Data - 3 Hr Rolling Avg







CF Industries Plant City Phosphate Complex  
D-SAP Quarterly Report, Hourly CEM Data - 3 Hr Rolling Avg (4th Quarter 2006)

