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BUREAU OF AIR REGULATION

 **CF Industries**

CF Industries, Inc.
Plant City
Phosphate Complex
P.O. Drawer L
Plant City, Florida 33564
813-782-1591
www.cfifl.com

January 8, 2009

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

SUBJECT: CF Industries, Inc. (CFI)
Plant City Phosphate Complex
Permit No. 057005-017AV
"C" & "D" Sulfuric Acid Plants
Second Semi-annual 2008 SO₂ CEM/Production Data Report

Dear Ms. Vielhauer:

In accordance with Specific Condition, "Subsection A.21." contained in the facility Title V Construction Permit No. 0570005-026-AC, enclosed is the Second Semi-annual 2008 SO₂ and Production Data Report for the "C" & "D" Sulfuric Acid Plants. Permit No. 0570005-026-AC authorized a 2962 tons per day (100% sulfuric acid produced) production limit for both the "C" & "D" Sulfuric Acid Plants. The permit was effective on February 28, 2008.

Please note that the excess emissions that occurred for a 5-hour period at the "C" Sulfuric Acid Plant on September 4, 2008, were reported to you in the "Revised Continuous Monitoring Report", dated November 18, 2008.

If you have any questions concerning this submittal, please contact Frank Dlugos at (813)364-5639.

Sincerely,

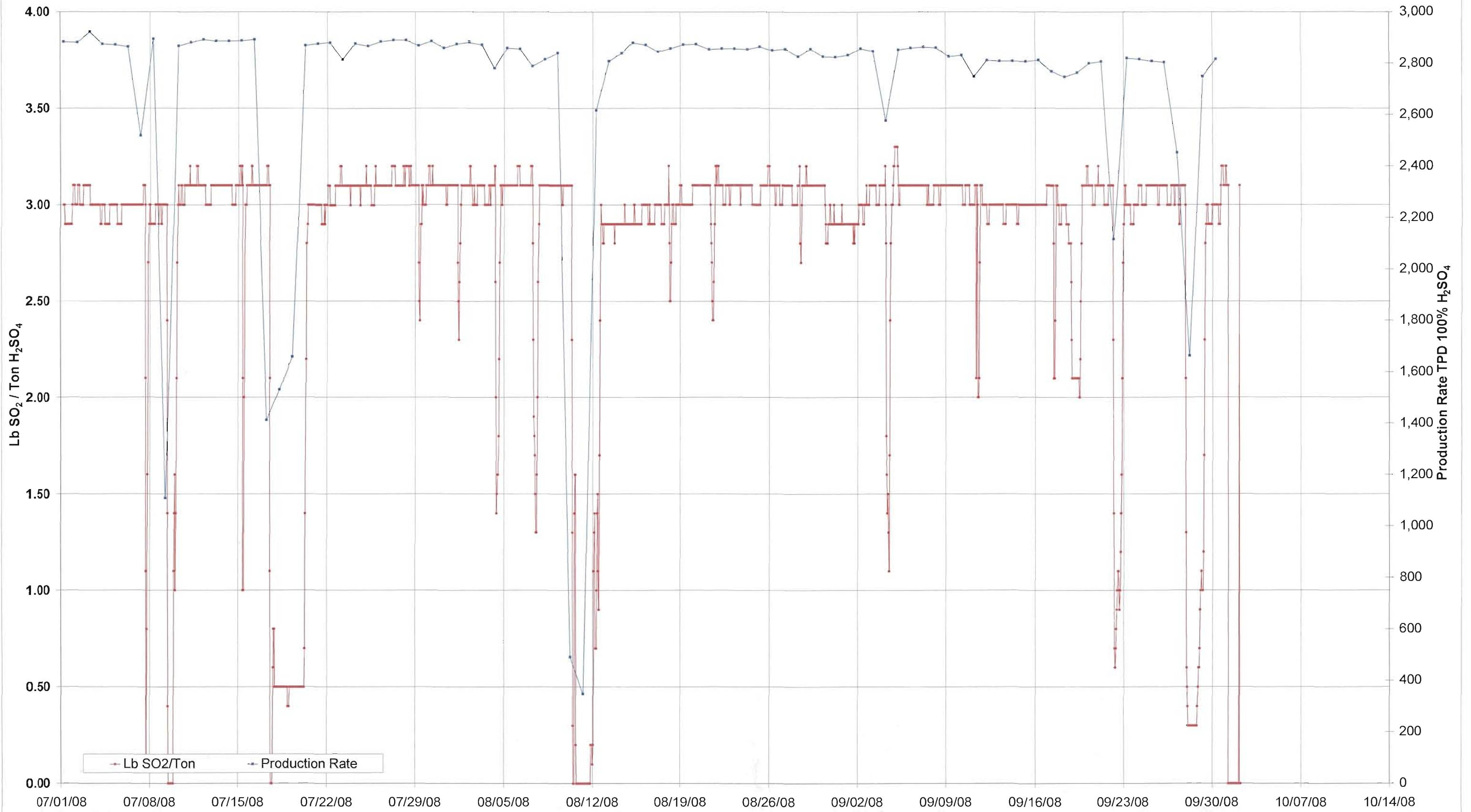


Ronald L. Brunk
Superintendent, Environmental
Affairs

RLB/FJD/gem

CC: Danielle Henry/FDEP
Syed Arif/FDEP
Jason Waters/HCEPC
F.J. Dlugos/Envir. Files

CF Industries Plant City Phosphate Complex C-SAP Quarterly Report, Hourly CEM Data - 3 Hr Rolling Avg

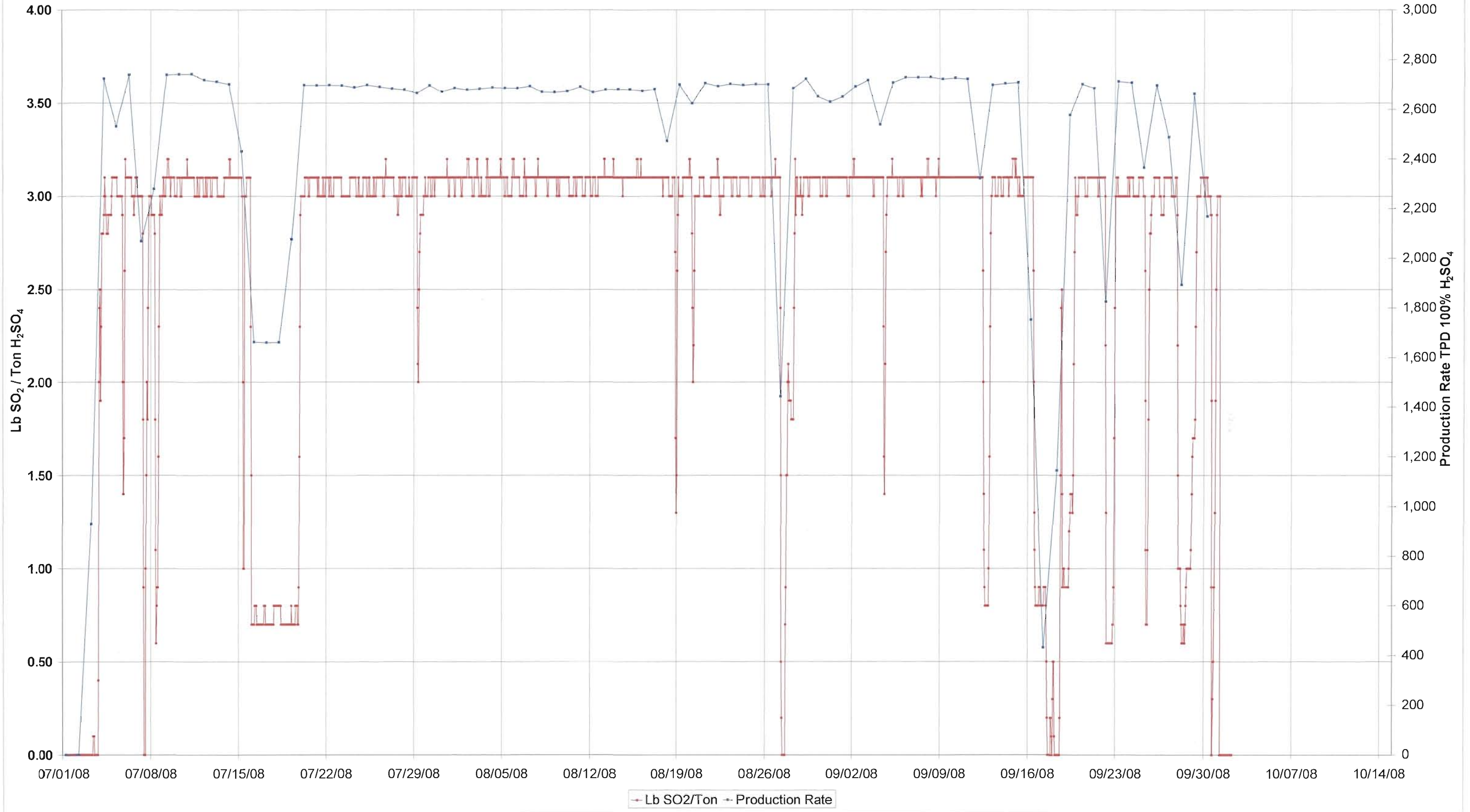


CF Industries, Inc. Plant City Phosphate Complex
D-SAP Quarterly Report, Hourly Stack CEM Data - Lb SO₂/Ton H₂SO₄
July 1, 2008 6:00 AM Through October 1, 2008 6:00 AM

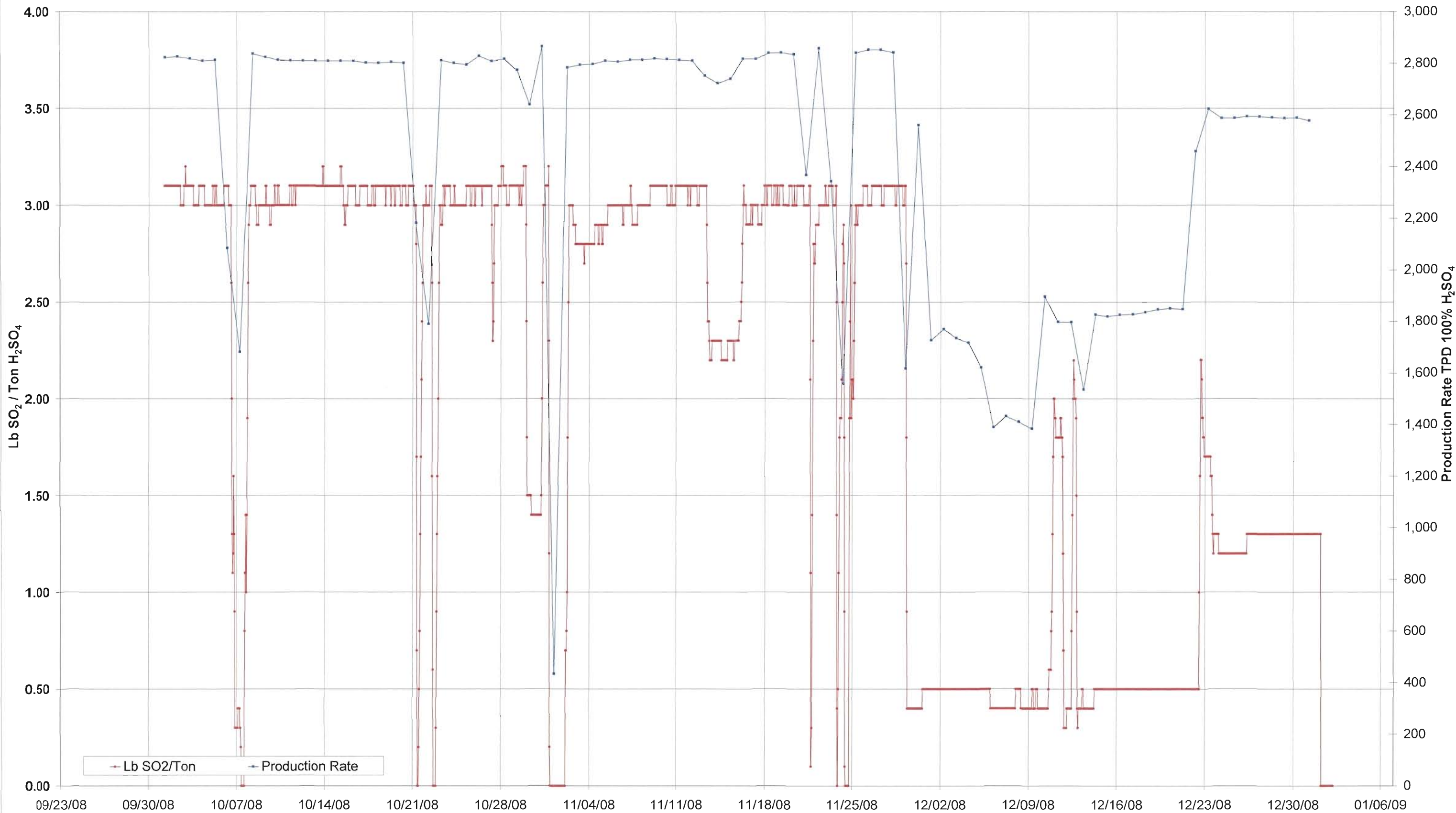
3-Hr Rolling Average Period (Previous 2hrs & Indicated Hr)

	Daily Prod. Tons H ₂ SO ₄	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM
8/28/2008	2,684	1.8	1.8	2.4	2.8	3.2	2.9	3.0	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.1	3.0	3.0	2.9	3.0	3.0	3.1	3.1	3.1	3.1
8/29/2008	2,722	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
8/30/2008	2,651	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1
8/31/2008	2,630	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
9/1/2008	2,650	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.1
9/2/2008	2,691	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
9/3/2008	2,717	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
9/4/2008	2,538	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.3	1.6	1.4	2.1	2.7	2.9	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.2
9/5/2008	2,707	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.1	3.1	3.1
9/6/2008	2,728	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
9/7/2008	2,728	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.1	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.1	3.1	3.1
9/8/2008	2,729	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.1	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1
9/9/2008	2,721	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
9/10/2008	2,725	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
9/11/2008	2,721	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
9/12/2008	2,321	3.1	3.1	3.1	3.1	3.1	3.1	2.6	2.0	1.4	1.1	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.0	1.6	2.3	2.8	3.0	3.0
9/13/2008	2,697	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.1	3.1	3.1
9/14/2008	2,703	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.1	3.2	3.1	3.1	3.1
9/15/2008	2,707	3.0	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
9/16/2008	1,752	3.1	3.1	3.1	3.1	3.1	2.6	2.0	1.3	1.1	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8
9/17/2008	432	0.8	0.9	0.9	0.9	0.9	0.8	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.0	0.3	0.5	0.5	0.1	0.0	0.0	0.0
9/18/2008	1,144	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.5	2.4	2.5	1.4	0.9	0.9	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0
9/19/2008	2,577	1.2	1.3	1.4	1.4	1.4	1.4	1.3	1.5	2.1	2.7	3.1	3.0	2.9	2.9	2.9	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1
9/20/2008	2,701	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
9/21/2008	2,684	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0
9/22/2008	1,825	2.2	1.3	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.9	1.7	2.4	3.0	3.0	3.1	3.1	3.1
9/23/2008	2,712	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.0	3.1	3.1	3.1
9/24/2008	2,707	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0
9/25/2008	2,364	3.0	3.0	3.0	2.6	1.9	1.1	0.7	0.7	0.7	1.1	1.8	2.5	2.8	2.8	2.9	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1
9/26/2008	2,696	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	2.9	2.9	2.9	2.9	2.9	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
9/27/2008	2,488	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	2.9	2.2	1.5	1.0	1.0	1.0	1.0	1.0
9/28/2008	1,894	0.8	0.7	0.6	0.6	0.6	0.7	0.7	0.6	0.7	0.8	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.4	1.6	1.7	1.7
9/29/2008	2,662	1.7	1.7	1.8	2.3	2.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.1	3.1	3.1
9/30/2008	2,169	3.1	3.0	3.0	3.0	3.0	3.0	2.9	2.9	1.9	0.9	0.0	0.3	0.5	0.9	1.3	1.9	2.5	2.9	3.0	3.0	3.0	3.0	3.0	3.0

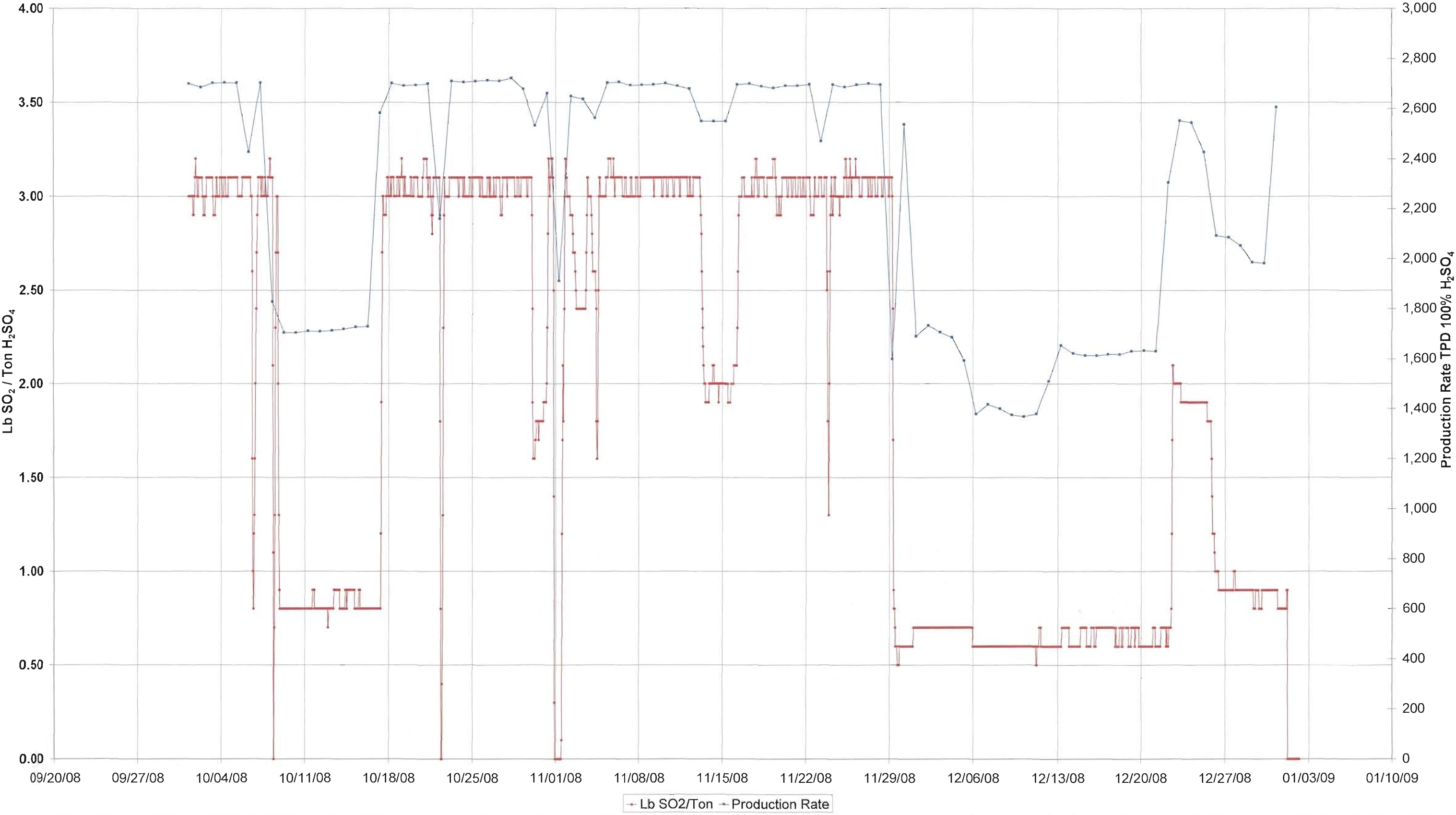
CF Industries Plant City Phosphate Complex D-SAP Quarterly Report, Hourly CEM Data - 3 Hr Rolling Avg



CF Industries Plant City Phosphate Complex C-SAP Quarterly Report, Hourly CEM Data - 3 Hr Rolling Avg



CF Industries Plant City Phosphate Complex D-SAP Quarterly Report, Hourly CEM Data - 3 Hr Rolling Avg



INSTRUMENT MAINTENANCE PROCEDURE
ENVIRONMENTAL MONITORING

39614-M

Page 1

ASSIGNED TO: Tommy Quick DATE: 7/28/08

EMISSION TEST GAS SPAN TEST C & D SULFURIC ACID PLANT
CRITICAL PM QUARTERLY

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

3.5 % O₂; 5 % O₂; 10% % O₂, BALANCE NITROGEN

250 PPM SO₂; 550 PPM SO₂; 900 PPM SO₂ BALANCE NITROGEN

O₂ and SO₂ 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 O₂ concentration test gas, open the valve. At period 18, the O₂ 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 O₂ gas valve and open the medium concentration O₂ gas valve and allow this reading to stabilize, again, at approximately five (5) minutes.
 - d. Close the medium O₂ gas valve and open the high concentration O₂ gas valve.
 - e. Start the analyzer timer, close the high O₂ valve when the sampling period ends.
 - f. Open the low concentration SO₂ valve. Sampling of SO₂ begins at period 20.
 - g. Stop the timer again for stabilization (5 minutes).
 - h. Close the low SO₂ valve and open the medium concentration SO₂ valve. Allow 5 minutes for stabilization.
 - i. Close the medium SO₂ valve and open the high concentration SO₂. Start timer, allow analyzer to time out.
 - j. Push Flush/Zero button to exit calibration mode.
2. At the WDPF console, open the SO₂/O₂ 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 SO₂ book and on the following page.

Approved By: Superintendent Environmental Affairs

[Signature] Date: 11/21/08

F:\doc\pm_ins\39614-M 11/29/07 Rev. 2 Approved By:

DWP GAO

Date: 12.4.07

INSTRUMENT MAINTENANCE PROCEDURE
ENVIRONMENTAL MONITORING

39614-M

Page 2

BEGIN TIME: 11:07

OXYGEN TEST 1

Requested Concentration Oxygen	Actual Concentration Oxygen	Yokogawa Analyzer Display	WDPF Reading
3.5%	3.53 %	3.58 %	3.55 %
5.0%	5.00 %	4.98 %	4.98 %
10.0%	10.03 %	10.00 %	10.03 %

OXYGEN TEST 2

Requested Concentration Oxygen	Actual Concentration Oxygen	Yokogawa Analyzer Display	WDPF Reading
3.5%	3.53 %	3.57 %	3.63 %
5.0%	5.00 %	5.01 %	4.98 %
10.0%	10.03 %	10.04 %	10.02 %

OXYGEN TEST 3

Requested Concentration Oxygen	Actual Concentration Oxygen	Yokogawa Analyzer Display	WDPF Reading
3.5%	3.53 %	3.50 %	3.50 %
5.0%	5.00 %	4.95 %	4.95 %
10.0%	10.03 %	10.00 %	9.97 %

INSTRUMENT MAINTENANCE PROCEDURE
ENVIRONMENTAL MONITORING

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Page 3

SO2 TEST 1

Requested Concentration SO2	Actual Concentration SO2	Ametek Analyzer Display	WDPF Reading
250PPM	258 PPM	255 PPM	255 PPM
550PPM	542 PPM	554 PPM	554 PPM
900PPM	881 PPM	892 PPM	892 PPM

SO2 TEST 2

Requested Concentration SO2	Actual Concentration SO2	Ametek Analyzer Display	WDPF Reading
250PPM	258 PPM	258 PPM	259 PPM
550PPM	542 PPM	558 PPM	559 PPM
900PPM	881 PPM	895 PPM	898 PPM

SO2 TEST 3

END TIME:

14:46

Requested Concentration SO2	Actual Concentration SO2	Ametek Analyzer Display	WDPF Reading
250PPM	258 PPM	259 PPM	259 PPM
550PPM	542 PPM	557 PPM	559 PPM
900PPM	881 PPM	898 PPM	899 PPM

INSTRUMENT MAINTENANCE PROCEDURE
ENVIRONMENTAL MONITORING

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AVERAGES

Requested Concentration Oxygen	Actual Concentration Oxygen	Yokogawa Analyzer Display	WDPF Reading
3.5%	3.55%	3.55%	3.56%
5.0%	5.0%	4.98%	4.97%
10.0%	10.03%	10.01%	10.01%

Requested Concentration SO2	Actual Concentration SO2	Ametek Analyzer Display	WDPF Reading
250PPM	258 PPM	258 PPM	258 PPM
550PPM	542 PPM	556 PPM	557 PPM
900PPM	881 PPM	895 PPM	896 PPM

TEST GAS

Requested Concentrations	Actual Test Gas	Bottle Serial Number
3.5% Oxygen	3.53	CC234187
5.0% Oxygen	5.00	CC209786
10.0% Oxygen	10.03	CC207985
250 PPM SO2	258	CC253899
550 PPM SO2	542	CC254007
900 PPM SO2	881.3	CC48246

NOTES AND COMMENTS OF INSPECTION

ok @ this time

Completed By: Y. Leuch Date: 7-28-08
(Mechanic's Signature)

Reviewed By: [Signature] Date: 7-30-08
(Supervisor's Signature)

INSTRUMENT MAINTENANCE PROCEDURE
ENVIRONMENTAL MONITORING

39614-M

Page 1

ASSIGNED TO: T. CHUTEER STEVE CARTER DATE: 10-29-09

EMISSION TEST GAS SPAN TEST C & D SULFURIC ACID PLANT
CRITICAL PM QUARTERLY

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

3.5 % O₂; 5 % O₂; 10% % O₂, BALANCE NITROGEN

250 PPM SO₂; 550 PPM SO₂; 900 PPM SO₂ BALANCE NITROGEN

O₂ and SO₂ 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 O₂ concentration test gas, open the valve. At period 18, the O₂ 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 O₂ gas valve and open the medium concentration O₂ gas valve and allow this reading to stabilize, again, at approximately five (5) minutes.
 - d. Close the medium O₂ gas valve and open the high concentration O₂ gas valve.
 - e. Start the analyzer timer, close the high O₂ valve when the sampling period ends.
 - f. Open the low concentration SO₂ valve. Sampling of SO₂ begins at period 20.
 - g. Stop the timer again for stabilization (5 minutes).
 - h. Close the low SO₂ valve and open the medium concentration SO₂ valve. Allow 5 minutes for stabilization.
 - i. Close the medium SO₂ valve and open the high concentration SO₂. Start timer, allow analyzer to time out.
 - j. Push Flush/Zero button to exit calibration mode.
2. At the WDPF console, open the SO₂/O₂ 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 SO₂ book and on the following page.

Approved By: Superintendent Environmental Affairs [Signature] Date: 11-21-08

F:\doc\pm_ins\39614-M 11/29/07 Rev. 2 Approved By: DWP EAO Date: 12-4-07

INSTRUMENT MAINTENANCE PROCEDURE
ENVIRONMENTAL MONITORING

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Page 2

BEGIN TIME: _____

OXYGEN TEST 1

Requested Concentration Oxygen	Actual Concentration Oxygen	Yokogawa Analyzer Display	WDPF Reading
3.5%	3.53 %	3.5 %	3.5 %
5.0%	5.0 %	4.9 %	4.84 %
10.0%	10.03 %	9.8 %	9.8 %

OXYGEN TEST 2

Requested Concentration Oxygen	Actual Concentration Oxygen	Yokogawa Analyzer Display	WDPF Reading
3.5%	3.53 %	3.42 %	3.4 %
5.0%	5.0 %	4.84 %	4.84 %
10.0%	10.03 %	9.8 %	9.73 %

OXYGEN TEST 3

Requested Concentration Oxygen	Actual Concentration Oxygen	Yokogawa Analyzer Display	WDPF Reading
3.5%	3.53 %	3.42 %	3.42 %
5.0%	5.0 %	4.82 %	4.8 %
10.0%	10.03 %	9.8 %	9.7 %

INSTRUMENT MAINTENANCE PROCEDURE
ENVIRONMENTAL MONITORING

39614-M

Page 3

SO2 TEST 1

Requested Concentration SO2	Actual Concentration SO2	Ametek Analyzer Display	WDPF Reading
250PPM	249 PPM	258 PPM	262 PPM
550PPM	556 PPM	566 PPM	564 PPM
900PPM	902 PPM	915 PPM	916 PPM

SO2 TEST 2

Requested Concentration SO2	Actual Concentration SO2	Ametek Analyzer Display	WDPF Reading
250PPM	249 PPM	262 PPM	263 PPM
550PPM	556 PPM	568 PPM	566 PPM
900PPM	902 PPM	917 PPM	917 PPM

SO2 TEST 3

END TIME:

Requested Concentration SO2	Actual Concentration SO2	Ametek Analyzer Display	WDPF Reading
250PPM	249 PPM	262 PPM	263 PPM
550PPM	556 PPM	568 PPM	563 PPM
900PPM	902 PPM	916 PPM	914 PPM

INSTRUMENT MAINTENANCE PROCEDURE
ENVIRONMENTAL MONITORING

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AVERAGES

Requested Concentration Oxygen	Actual Concentration Oxygen	Yokogawa Analyzer Display	WDPF Reading
3.5%	3.53%	3.44 %	3.44 %
5.0%	5.0 %	4.85 %	4.82 %
10.0%	10.03 %	9.8 %	9.74 %

Requested Concentration SO2	Actual Concentration SO2	Ametek Analyzer Display	WDPF Reading
250PPM	249 PPM	260 PPM	262 PPM
550PPM	556 PPM	567 PPM	564 PPM
900PPM	902 PPM	916 PPM	915 PPM

TEST GAS

Requested Concentrations	Actual Test Gas	Bottle Serial Number
3.5% Oxygen	3.53	CC 234187
5.0% Oxygen	5.0	CC 209786
10.0% Oxygen	10.03	CC 207985
250 PPM SO2	249	CC 253899
550 PPM SO2	556	CC 67247
900 PPM SO2	902	CC 118701

NOTES AND COMMENTS OF INSPECTION

Completed By: Tony Chetta Date: 10-29-08
(Mechanic's Signature)

Reviewed By: [Signature] Date: 11-18-08
(Supervisor's Signature)