

Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Colleen M. Castille  
Secretary

March 31, 2006

## CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Michael A. Gonzales  
Plant Manager  
CEMEX Cement, Inc.  
Post Office Box 6  
Brooksville, Florida 34605-0006

Re: DEP File 0530010-018-AC, PSD-FL-362  
SNCR, Burners CEMEX Brooksville Plant

The Department received your permit application on October 14<sup>th</sup> and key meteorological and modeling information on October 18. The Department requested additional information on November 14. A response to this request was received on March 3, 2006 from Koogler & Associates for CEMEX.

The original application (0530010-018-AC) is to conduct various projects at the CEMEX Brooksville Plant including use of up to 100% petroleum coke (petcoke) as a fuel in Kilns 1 and 2; use of tire-derived fuel (TDF) in both kilns; installation of new kiln burners; installation of an ammonia injection system in the lower preheater of each kiln; and increase transfer/production rates for various emissions units. The Department has determined that the application is incomplete with respect to the requested projects.

The Department requests submittal of additional information in order to continue processing your application pursuant to Rule 62-4.055, F.A.C., Permit Processing, and the Standards of Issuing or Denying permits at Rule 62-4.070, F.A.C. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

The following information is required to complete the application:

1. In your response to our request for information you described work completed to convert the system from direct to semi-direct firing. However, CEMEX has indicated in an attachment to a subsequent application and during phone conversations with department staff that the system will be converted from semi-direct to indirect firing. Please describe any work that will be conducted with respect to this change, and any expected impacts this change will have on NO<sub>x</sub> and CO. Also submit updates to the appropriate application pages for this change if actually planned. Is this conversion planned for both kilns?
2. The Department requested that you provide continuous emission monitoring system data for both kilns on an hour-by-hour basis including ammonia injection rates, process data, as well as the parameters needed to calculate CO and NO<sub>x</sub> emissions in lb/ton of feed or lb/ton of clinker. The CEMS data provided included only CO and NO<sub>x</sub> concentrations data, ammonia injection rate, and kiln feed rate. Please provide (in electronic format) the parameters needed to calculate CO

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and NO<sub>x</sub> emission rates in lb/ton of feed or lb/ton of clinker for each hour as previously requested.

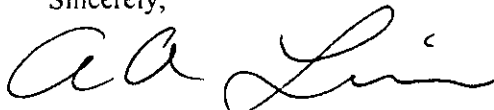
3. According to CEMEX's response to the Department's recent request for information, stack gas NO<sub>x</sub> concentrations were established at compliance NO<sub>x</sub> emission rates for various kiln feed rates. An ammonia injection rate necessary to stay below the predetermined stack gas NO<sub>x</sub> compliance concentration is maintained by the operator. At what kiln feed rates were these NO<sub>x</sub> concentrations established and what are the corresponding NO<sub>x</sub> concentrations?
4. The Department has detected a discrepancy between section 2.1.2 Finish Mills Nos. 1 and 2 (page 4), and Table 3 (page 20) of the Report in Support of the Application for a PSD Construction Permit Review. Page 4 of the report indicates that CEMEX is requesting to split the PM limit for Finish Mills 1 and 2 to 78.9 TPY of PM for each finish mill. In Table 3, the Future Potential for Finish Mills 1 and 2 appear to be listed as 78.8 TPY for both mills. Please clarify and make the necessary adjustments. If Table 3 is incorrect, the *Total Net Change Due to Project* will need to be reassessed for PM.
5. We understand that the Kiln 1 existing tire delivery and injection system was modified. Please provide the historical maximum sustained tire feed rate achieved prior to modification and that achieved since the upgrade of the system.
6. How are the changes in the tire delivery and injection system expected to impact CO emissions given the absence of tertiary air and the bulky nature of the tires?
7. We consider it important to promptly calibrate the CO and NO<sub>x</sub> CEMS to insure the data submitted in support of this application is accurate.
8. Has CEMEX or its affiliates had any violations (or warning letters) related to any Department or EPA regulations at any of their facilities in Florida and the United States? Have officers of CEMEX also been officers of other companies that have had violations (or warning letters) of Department regulations at any facilities? Please provide all documentation in relation to any such violations. This question was included in the Department's first request for additional information. According to Koogler's response dated March 1<sup>st</sup>, this information is to be provided in a separate document. To date, the Department has not received the requested information.

Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature.

Permit applicants are advised that Rule 62-4.055(1), F.A.C. requires applicants to respond to requests for information within 90 days. Failure of an applicant to provide the timely requested information by the applicable date shall result in denial of the application.

If you have any questions regarding this matter, please call me at 850/921-9523.

Sincerely,



A. A. Linero, P.E.  
Program Administrator  
South Permitting Section

Cc: Charles Walz, CEMEX  
Fawn Bergen, P.E., Koogler  
Mara Nasca, DEP SWD

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Michael A. Gonzales  
Plant Manager  
CEMEX Cement, Inc.  
Post Office Box 6  
Brooksville, Florida 34605-0006

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  
 *J. Davidson*  Addressee

B. Received by (Printed Name) C. Date of Delivery  
*S. JAVES - 4/7/06*

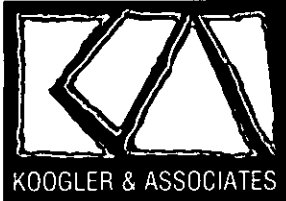
D. Is delivery address different from item 1?  Yes  
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3. Service Type  
 Certified Mail  Express Mail  
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 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

2. Article Number  
(Transfer from service label)

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**KOUGLER & ASSOCIATES**

**ENVIRONMENTAL SERVICES**

4014 NW THIRTEENTH STREET  
GAINESVILLE, FLORIDA 32609  
352/377-5822 • FAX/377-7158

KA 521-05-11  
March 1, 2006

**RECEIVED**

MAR 03 2006

BUREAU OF AIR REGULATION

Mr. A. A. Linero, PE  
FDEP  
Program Administrator, South Permitting Section  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

**RE: Request for Additional Information; DEP File 0530010-018-AC; PSD-FL-362  
Projects at CEMEX Brooksville Plant**

Dear Al:

CEMEX is in receipt of the Department's Request for Additional Information (RAI) dated November 15, 2005. On December 12, 2005 a separate application to address the burning of petcoke and tires on a trial basis was submitted to the Department. It is our understanding that the Department plans to handle this project in phases beginning with the trial burn and testing period. Although a separate RAI was sent out by the Department addressing the application for the trial burn and testing phase for petroleum coke and tires, all of the comments are addressed below in the order they appear in the referenced letter.

1. Please describe any work conducted or that will be conducted with respect to the burning of 100% petcoke. Describe the work items conducted that were excluded from Pillard's quotation submitted as Attachment 1. This includes work to convert the system from direct to semi -direct firing.

**Response:** In addition to the work associated with the Pillard burners and described in Attachment 1, of CEMEX's October 14, 2005 permit application, CEMEX installed a cyclone separator between the existing coal mills (one mill for each kiln) and the newly installed Pillard burners. The purpose of the cyclones is to provide a fuel-rich air stream that is directed into the central primary air and fuel channel of the Pillard burners and a second, fuel-lean air stream that is directed into the axial and swirl channels of the Pillard burners.

These cyclones, in addition to the burners, completed the conversion from the existing direct firing system to the presently installed semi-direct firing systems.

Regarding additional work to the coal mills to accommodate the burning of 100 percent petcoke, CEMEX is having the mills evaluated as will be discussed in more detail in response to FDEP Question No. 4. For the initial trial period, however, no further work is anticipated. For the trial period, CEMEX will use a petcoke with a Hardgrove index of 60-80. CEMEX has determined that the existing ball mills should be capable of grinding this coke to a consistency of 95 percent passing a 200 mesh sieve. This is the fineness that CEMEX's experience has determined necessary for the successful burning of 100 percent petcoke.

2. Describe how 100% petcoke can be used given the lack of volatile fraction to support combustion and flame.

**Response:** CEMEX has experience in burning 100 percent petcoke or a mixture of petcoke and TDF at their Balcones Plant in New Braunfels, Texas, burning petcoke at their Fairborn, Ohio Plant and burning petcoke at their Knoxville Plant. Additionally, TDF tests have been conducted at the Knoxville Plant. CEMEX has found that to burn 100 percent petcoke, it is necessary to grind the petcoke to a fineness of 95 percent passing a 200 mesh sieve. With this fineness, CEMEX has found that the petcoke will satisfactorily burn in the traditional burn-zone at the front of the kiln. For the trial period, CEMEX will use a petcoke with a Hardgrove index of 60-80 (a softer petcoke) so that the petcoke can be satisfactorily ground in the existing ball mills.

Regarding the co-firing of coal and petcoke, CEMEX has found that coal and petcoke mixes in the range of 90/10 and 80/20 can be satisfactorily burned and that 100 percent petcoke can be satisfactorily burned. CEMEX has found that when coal/petcoke mixes approaching 50/50 are burned, two flames develop in the kiln. One flame is the result of coal combustion and the second is the flame resulting from petcoke combustion. The coal flame develops near the front of the kiln while the petcoke flame develops further down the kiln. This double flame results in poor clinkering as well as operating problems.

Regarding the combustion of petcoke at the kiln inlet burner and Tire Derived Fuel fired at the feed shelf, CEMEX has had success with this combination. CEMEX has burned the petcoke/TDF mix at their Balcones Plant with good success.

3. Provide the procedures for receiving and storing petcoke as well as controlling dust from handling. Provide procedures related to groundwater protection.

**Response:** Petcoke will be stored in a section of the existing coal yard, where coal is currently stored in piles. If the petcoke is dusty, a diesel-powered portable water truck will be available to spray the pile. There are currently no groundwater protection measures taken for the coal piles in the coal yard. CEMEX plans to store petcoke in the same manner as coal.

4. Are the coal mills capable of grinding petcoke to the specifications needed and to supply a 100% petcoke fuel stream for the two kilns?

**Response:** The CEMEX Combustion Group and an outside consultant, F.L. Smidth, are presently evaluating the existing coal mills for grinding petcoke. Based on experience at the CEMEX Knoxville Plant, CEMEX has found that ball mills, similar to the mills presently in place at the Brooksville Cement Plant, are capable of grinding petcoke with a Hardgrove index in the range of 60-80. For grinding harder petcoke (with a Hardgrove index in the range of 35-40), CEMEX and FLS are looking into the feasibility of installing a pre-grinder ahead of the ball mills or completely replacing the existing ball mills with vertical roller mills. The Department will be provided with the results of this feasibility study when the study is completed.

For purposes of the trial period requested by CEMEX, petcoke with a Hardgrove index of 60-80 will be used so that the required degree of fineness (95 percent passing a 200 mesh sieve) can be achieved with the existing ball mills.

5. Petcoke contains more sulfur than coal contains. With the low alkali levels in the native limestone, how will CEMEX compensate with the greater alkali requirements inherent in burning petcoke? Will it be necessary for CEMEX to use even more of the 16% LOI fly ash and less bauxite or sand or clay?

**Response:** It is recognized that the sulfur-alkali balance is important both in the quality of the clinker and the operation of a cement plant. Conventional wisdom is that if the sulfur-

alkali balance exceeds unity, sulfur emissions (as sulfur dioxide) will increase and/or there will be sulfur deposits in the riser duct and/or preheater. It has been the experience of CEMEX, however, and the experience of European cement producers, that a sulfur-alkali ratio of up to two can be maintained without increasing SO<sub>2</sub> emissions or experiencing sulfur deposits.

Operating with a high sulfur-alkali ratio can be accomplished while burning 100 percent petcoke by assuring that there is complete burnout of the petcoke under oxidizing conditions early in the kiln. This allows the fuel sulfur to form sulfate complexes in the clinker and to exit the kiln with the clinker. To assure the early burnout of the petcoke requires grinding the petcoke to a fineness of 95 percent passing a 200 mesh sieve and requires sufficient oxygen to assure the burnout of the petcoke under oxidizing conditions. CEMEX has had experience operating under these conditions at their Fairborn, Ohio Plant, their Balcones Plant and their Knoxville Plant and is of the opinion that similar operations can be achieved at the Brooksville Cement Plant.

One other thing that CEMEX is doing to increase the alkalinity of the kiln feed is looking at additives such as pumice. The increased alkalinity both helps the sulfur-alkali balance and it provides alkalis necessary for the early setting strength of the cement produced.

6. Please provide information on the effects of additional vanadium and nickel found in petcoke upon the formation of sulfuric acid mist.

**Response:** Any additional amounts of vanadium and/or nickel in petcoke are not expected to have any measurable effect on sulfuric acid mist emissions from the CEMEX Brooksville Cement Plant. It is recognized that soot deposition resulting from the firing of petcoke in steam generators has resulted in boiler tube corrosion as a result of higher levels of vanadium and/or nickel in soot and the catalytic effect of these metals on sulfur dioxide in the gas stream. This same effect is not expected in a cement plant, however, because of the high overall dust concentration in the kiln system and the nature of this dust.

To evaluate the overall magnitude of potential increases in vanadium and nickel in the kiln system as a result of firing various fractions of petcoke, several references were reviewed. Geometric mean values of vanadium and nickel in kiln feed, coal and coke were determined from these references and are presented in the following table:

Material	Vanadium (ppm)	Nickel (ppm)
Kiln Feed	38	21
Coal	65	33
Petcoke	270	80

For purposes of this discussion, a kiln feed rate of 150 tons per hour and a fuel firing rate of 10 tons per hour were taken as typical. Based on these system operating conditions and the vanadium and nickel concentrations in the feed and fuels, data in the following table summarize the total vanadium and nickel input to the kiln system for various petcoke firing fractions:

Petcoke/ Coal Ratio	Material	Vanadium (lb/hr)	Nickel (lb/hr)
0/100	Feed	11.4	6.3
	Coal	1.3	0.7
	Petcoke	0.0	0.0
	Total	12.7	7.0
20/80	Feed	11.4	6.3
	Coal	1.0	0.5
	Petcoke	1.1	0.3
	Total	13.5	7.1
40/60	Feed	11.4	6.3
	Coal	0.8	0.4
	Petcoke	2.2	0.6
	Total	14.4	7.3
100/0	Feed	11.4	6.3
	Coal	0.0	0.0
	Petcoke	5.4	1.6
	Total	16.8	7.9

The data in this table demonstrate that when firing 100 percent coal, there is approximately 12.7 pounds per hour of vanadium input to the kiln system and approximately 7.0 pounds per hour of nickel. With 100 percent petcoke firing, the vanadium input to the kiln system will increase by approximately 4.1 pounds per hour and the nickel input will increase by



approximately 0.9 pounds per hour. These increases in vanadium and nickel will be associated with a kiln feed rate of 150 tons per hour and a corresponding kiln dust recirculation rate of approximately 15 tons per hour. In this total material feed/recirculating dust environment, the increase in vanadium and nickel is not expected to have any measurable effect on the formation of sulfuric acid mist.

7. Please describe any work conducted or that will be conducted with respect to burning TDF. This should include any modifications made or to be made to the existing tire burning system on Kiln 1 and the proposed system on Kiln 2. Describe the handling and feeding system.

**Response:** Tires are presently fired to Kiln No. 1 as authorized by Department Air and Solid Waste Permits. To fire tires to Kiln No. 2, a tire feeder, identical to the tire feeder on Kiln No. 1 will be installed on Kiln No. 2. This feeder will have a double air lock system to prevent air and leakage into the kiln and to prevent kiln exhaust gases from being discharged to the atmosphere during the tire feeding process. The Department has the specifications for the Kiln No. 1 tire feeder and, as stated, an identical feeder will be installed on Kiln No. 2.

The tire storage area, as presently permitted, will remain unchanged. The tire handling system between the tire storage area and the tire feeders on the two kilns has been automated and is presently being re-permitted by the Department's Bureau of Waste Management, Southwest District Office.

For informational purposes for the Bureau of Air Regulation, the automated tire handling system is described in Attachment 1. This system includes a:

- trailer tipper,
- live bottom hopper,
- rotating disk tire separator,
- tire sorting conveyor system,
- inclined tire conveyor,
- crossbelt conveyor, and
- weigh scale.

From the scale, the tires are fed through a double gate tire feeder into the riser duct. As stated previously, a tire feeder exists on Kiln No. 1 and the automated tire handling system is in place for Kiln No. 1. The tire feeder will be installed on Kiln No. 2 for the trial period upon

Department approval. At that time, the automated tire feed system will be tied into the Kiln No. 2 tire feeder.

8. Given the lack of a tertiary air duct, how will CEMEX insure that sufficient air will be available in the area of the kiln riser to insure proper combustion of TDF and burn out of CO?

**Response:** As with the burning of TDF in Kiln No. 1, CEMEX will assure sufficient oxygen is available in the area of the kiln riser by increasing the draft on the kiln and hence, the oxygen level at the back end of the kiln. This is the procedure that CEMEX has used to assure efficient TDF combustion on Kiln No. 1 for years. Also see response to Question No. 9.

9. Describe the combustion zone within the riser and lower preheater including the residence time to insure maximum burnout of CO.

**Response:** To provide assurance that carbon monoxide emissions can be managed while burning TDF, the following review of emission data collected at the CEMEX Plant in 1993 is provided. These data were collected on Kiln No. 1 under baseline kiln firing conditions (100 percent coal) and while the kiln was firing a mix of coal and TDF. The comparative testing was required by FDEP to demonstrate the efficacy of using TDF as a fuel supplement and all data have been provided to the Department.

As demonstrated by the summary of data previously submitted to the Department, and as addressed in response to Department Question No. 8 above, CEMEX can adjust the oxygen level at the back end of the kiln (the entrance to the riser duct) to assure that there is sufficient oxygen to efficiently burn the TDF. As a point of reference, when the above referenced compliance tests were conducted in 1993, the oxygen level at the back end of the kiln while firing 100 percent coal ranged from approximately 1.0-1.5 percent. In comparison, when a mix of coal (79 percent) and TDF (21 percent) was burned, the oxygen level at the back of the kiln ranged from approximately 3.0-4.0 percent.

The carbon monoxide emission rates measured during the 1993 test periods showed 12-hour average carbon monoxide emission rates ranging from 0.22-0.29 pounds per ton of preheater feed with coal firing and 12-hour average CO emission rates ranging from 0.28-0.40 pounds per ton of preheater feed when a mix of coal (79 percent) and TDF (21 percent) was fired. Taking into consideration the fact that the testing was conducted over

a limited period of time and at a time when there was very little experience operating the kiln while firing TDF, the data demonstrate that CEMEX plants can be operated in a manner that will assure the burnout of carbon monoxide resulting from the combustion of coal and TDF in the pyroprocessing system.

10. Please describe CEMEX experience using the 16% LOI fly ash described on Page 50 with respect to CO emissions. Has CEMEX been able to use this fly ash and comply with the present CO limit of approximately 2 lb/ton clinker and the dioxin/furan limits of 0.2 ng/dscm (or 0.4 ng/dscm)?

**Response:** CEMEX has reviewed the LOI analyses of flyash for the period May 2005-February 2006. During this period, almost 1200 flyash samples were analyzed for LOI. The average LOI of all samples was 6.5 percent and the geometric mean LOI of all samples was 5.7 percent. The range of LOI for all samples was 1.5-18.5 percent and only approximately one percent of all samples exceeded an LOI of 16 percent. CEMEX does not plan to change suppliers of flyash and hence, the LOI of flyash used in the future will be expected to be in the range reported herein.

As the LOI of the flyash will not change from that historically used by CEMEX, the CO emissions are not expected to change appreciatively.

Regarding Dioxin/Furan emissions, extensive testing conducted by CEMEX has demonstrated that D/F formation is a function of gas stream cooling between the preheater and kiln baghouse; not a function of kiln feed.

11. How will burning TDF and petcoke affect the heat balance as well as conditions related to dioxin formation and control?

**Response:** The overall heat input to the pyroprocessing system will not change with the burning of petcoke and TDF. Under an aggressive TDF firing scenario (80 percent petcoke and 20 percent TDF), 80 percent of the heat input will be through the kiln burner with the remaining 20 percent supplied by TDF introduced at the riser duct and onto the kiln feed shelf. As discussed previously, the petcoke will be ground to a fineness of 95 percent passing a 200 mesh sieve to assure the burnout of the petcoke in the traditional kiln burning zone near the front-end of the kiln. The heat input by TDF will be the same as it has been during the use of TDF in Kiln No. 1 at the CEMEX Brooksville Cement Plant for years. This heat will

be used for preheating and possibly precalcining the kiln feed as it passes through the preheater.

Regarding the formation of Dioxins and Furans, as previously stated, extensive testing conducted by CEMEX has demonstrated that D/F formation is not a function of kiln firing conditions or kiln feed chemistry. The formation of D/F is a function of gas stream cooling between the preheater and kiln baghouse.

12. Provide continuous emission monitoring system (CEMS) data from the recently installed systems for both kilns on an hour-by-hour basis. Include ammonia injection rates and process data as well as the parameters needed to calculate CO and NO<sub>x</sub> emissions in term of lb/ton of feed or lb/ton of clinker.

**Response:** Recent CEMS data for NO<sub>x</sub> and CO is included in Attachment 2 of this letter.

13. Please provide the certification documentation for the recently installed CEMS.

**Response:** The NO<sub>x</sub> and CO CEMS on Kiln No. 1 and Kiln No. 2 are not certified. The monitoring instruments were installed and calibrated so that they could be used to provide reasonable assurance of compliance with the NO<sub>x</sub> and CO emission limiting standards for the two kilns. Additionally, there is an automatic zero and span gas injection daily on each of the instruments and periodically CEMEX personnel conduct a Cylinder Gas Audit of the instruments. Again, the present purpose of the monitors is to provide reasonable assurance of compliance with the permitted emission limiting standards.

14. If the CEMS have not yet been calibrated, please detail how the amount of ammonia necessary to maintain compliance with the NO<sub>x</sub> is determined?

**Response:** The amount of ammonia injected through the SNCR system on Kiln No. 2 was established during compliance testing. It should be noted that ammonia injection is not necessary to assure compliance with the NO<sub>x</sub> emission limiting standard on Kiln No. 1.

On Kiln No. 1 and No. 2, stack gas NO<sub>x</sub> concentrations were established at compliance NO<sub>x</sub> emission rates for various kiln feed rates. During day-to-day operations of Kiln No. 2, the plant operators maintain an ammonia injection rate necessary to stay below the predetermined

stack gas NOx compliance concentration depending on kiln feed rate. The compliance NOx concentrations are also available for Kiln No. 1 and should it be necessary, ammonia can be injected to provide assurance on this kiln also.

15. Provide information from other CEMEX projects where petcoke or TDF have been used and summarize the resulting emission changes.

**Response:** CEMEX burns petcoke with and without TDF at their plants in Knoxville, Tennessee, Fairborn, Ohio and New Braunfels, Texas. The company has found that emission rates of sulfur dioxide, nitrogen oxides, and carbon monoxide are site specific; depending on kiln feed chemistry, plant design, and plant operating conditions. As the effects of petcoke and TDF on emissions are site specific, CEMEX has requested, at the Department's suggestion, a trial period to evaluate the effects of petcoke and TDF firing at the Brooksville Cement Plant.

In general, CEMEX has found that the burning of up to 100 percent petcoke has had very little effect on SO<sub>2</sub> and CO emissions, but it has been observed that NOx emissions have increased in the order of 35 percent. The SO<sub>2</sub> emissions are maintained in a compliance range by firing a finely ground petcoke to assure complete burnout near the front end of the kiln and the incorporation of the fuel sulfur as a sulfate in the clinker which exits the kiln. CO emissions are maintained in a compliance range by adjusting the oxygen level at the kiln exit and by managing the carbon content of the kiln feed.

16. Provide information showing what the effects of ammonia injection (SNCR) have been to-date on emissions of CO. It is possible to separate the effects of SNCR on CO from the effects of petcoke, TDF, and 16% LOI fly ash. This is needed to allow a thorough BACT analysis.

**Response:** A report on SNCR tests conducted at the CEMEX Balcones Plant in New Braunfels, Texas is provided as Attachment 3. These tests, while representative of very short periods of time, do show an increase in CO emissions when ammonia is injected for NOx control. This in all probability is the result of the competing reaction between CO and ammonia radicals for oxygen in the riser duct. It is expected that with operating experience the oxygen concentration at the kiln exit can be balanced to minimize the increase in CO emissions associated with ammonia injection.

Regarding the effects of petcoke, TDF and flyash on CO emissions, the petcoke and TDF firing experience at the CEMEX Fairborn, Ohio Plant, the Knoxville, Tennessee Plant, the Balcones Plant, as well as the TDF firing experience that CEMEX has had at the Brooksville Cement Plant all demonstrate that CO emissions can be controlled by adjusting the oxygen level at the kiln exit.

CO emissions associated with the carbon content of flyash and other kiln feed constituents are generated in the preheater and are not a function of the combustion process or processes in the pyroprocessing system. As such, CO emissions that are a function of kiln feed can be and will be managed by managing the carbon content of the kiln feed constituents.

17. Please provide a summary for the past two years of the required daily sampling and recording of baghouse dust thallium concentration described in Condition B.20 of the facility Title V Operation Permit.

**Response:** Thallium monitoring for the past two years has shown that the concentration of thallium in kiln dust has consistently been below the action level of 1.5 percent. The monthly average thallium concentration for the two year period has been 0.31 percent and the range of individual thallium concentrations has been 0.02-1.33 percent.

18. Does CEMEX waste baghouse dust in general or to meet the mentioned thallium requirements in particular?

**Response:** CEMEX has not wasted baghouse dust for the past four years for purposes of controlling the thallium concentration of the dust or for any other purpose.

19. Where is the dust stored or where is it disposed or sold?

**Response:** As stated previously, Cemex has not wasted baghouse dust for the past several years.

20. Has CEMEX or its affiliates had any violations (or warning letters) related to any Department or EPA regulations at any of their facilities in Florida and the United States? Have officers of CEMEX also been officers of other companies that have had violations (or warning letters) of Department regulations at any facilities? Please provide all documentation in relation to any such violations.

**Response:** CEMEX will respond to this comment under separate cover.

21. The coordinates in the application for Kiln 1 and Kiln 2 are 356250 m E, 3168370 m N and 356300 m E, 3168380 m N respectively. In the modeling for Kiln 1 and Kiln 2, 356007 m E, 3169248 m N and 356052 m E, 3169261 m N is used. Please verify which coordinates are correct. If the modeling coordinates are incorrect, please update the modeling.

**Response:** The coordinates for Kilns 1 and 2 stacks were refined from a site map for the modeling analysis. Therefore, the coordinates reflected in the modeling analysis reflect the correct location of the stacks. The coordinates in the application should reflect the modeled coordinates. The revised application pages are in Attachment 4.

22. Basically, we need better descriptions of the petcoke and TDF projects besides the very basic descriptions provided. Please submit test protocols for trial tests using petcoke and TDF. This information is needed to determine the effects and develop procedures to minimize emissions increases such as for CO and evaluate the effects on other pollutants such as dioxin and VOC.

**Response:** A test protocol for the petcoke and TDF projects will be prepared and submitted under separate cover. The protocol will set forth the coal/petcoke ratios to be evaluated as well as the fraction of the pyroprocessing heat input provided by TDF. Additionally, the protocol will set forth operating conditions that will be monitored/adjusted to assure compliance is maintained with all regulated emissions.

If you have any questions regarding these issues, please contact me at 352-377-5822 or [FBergan@kooglerassociates.com](mailto:FBergan@kooglerassociates.com), or Charles Walz at 352-799-2011 or [charles.walz@cemexusa.com](mailto:charles.walz@cemexusa.com).

Very truly yours,

KOOGLER & ASSOCIATES



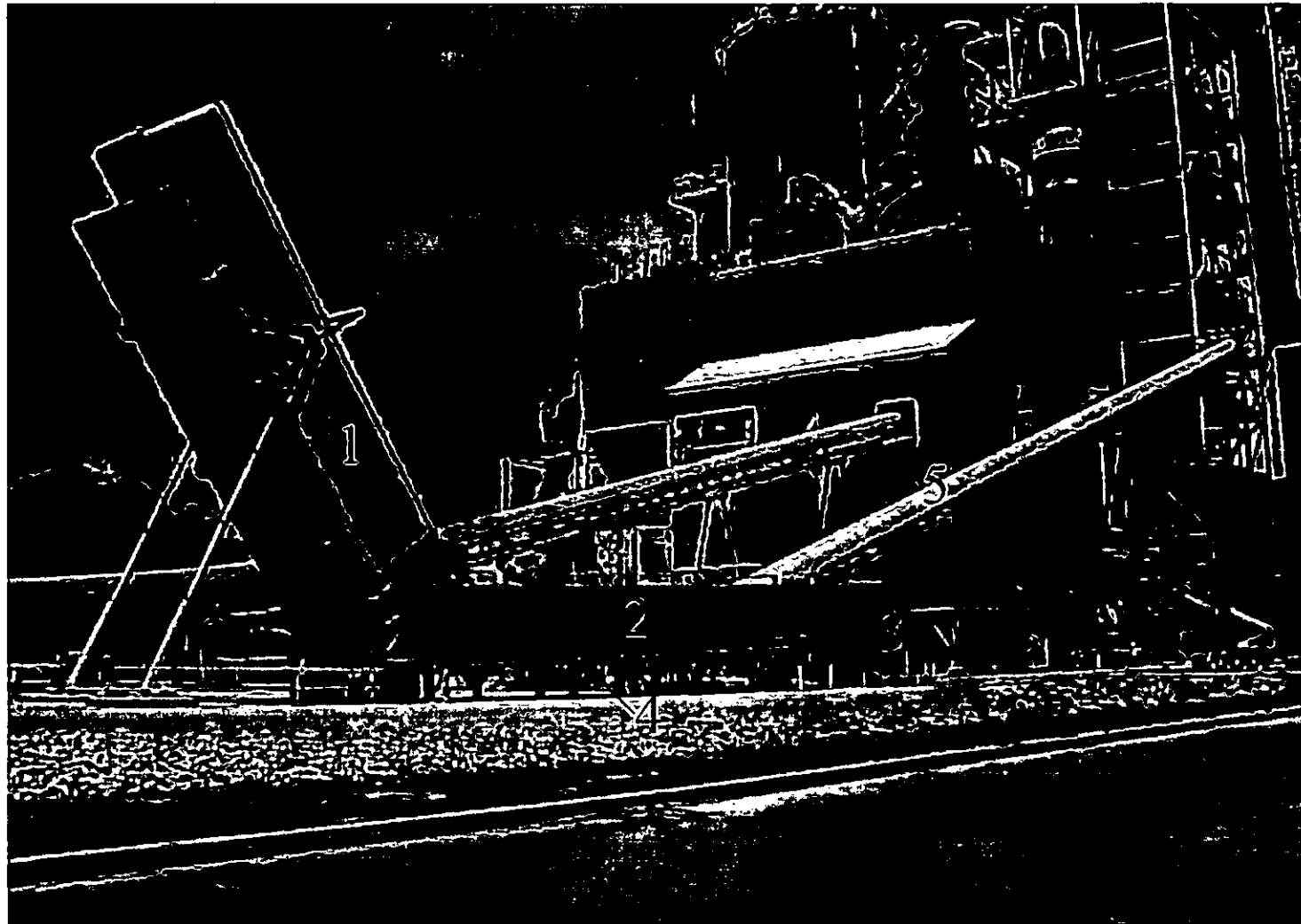
Fawn W. Bergen, P.E.  
PE Seal # 61614  
Project Engineer

FB  
Enclosure: Attachments 1 - 4  
cc: J. Gill, CEMEX  
C. Walz, CEMEX

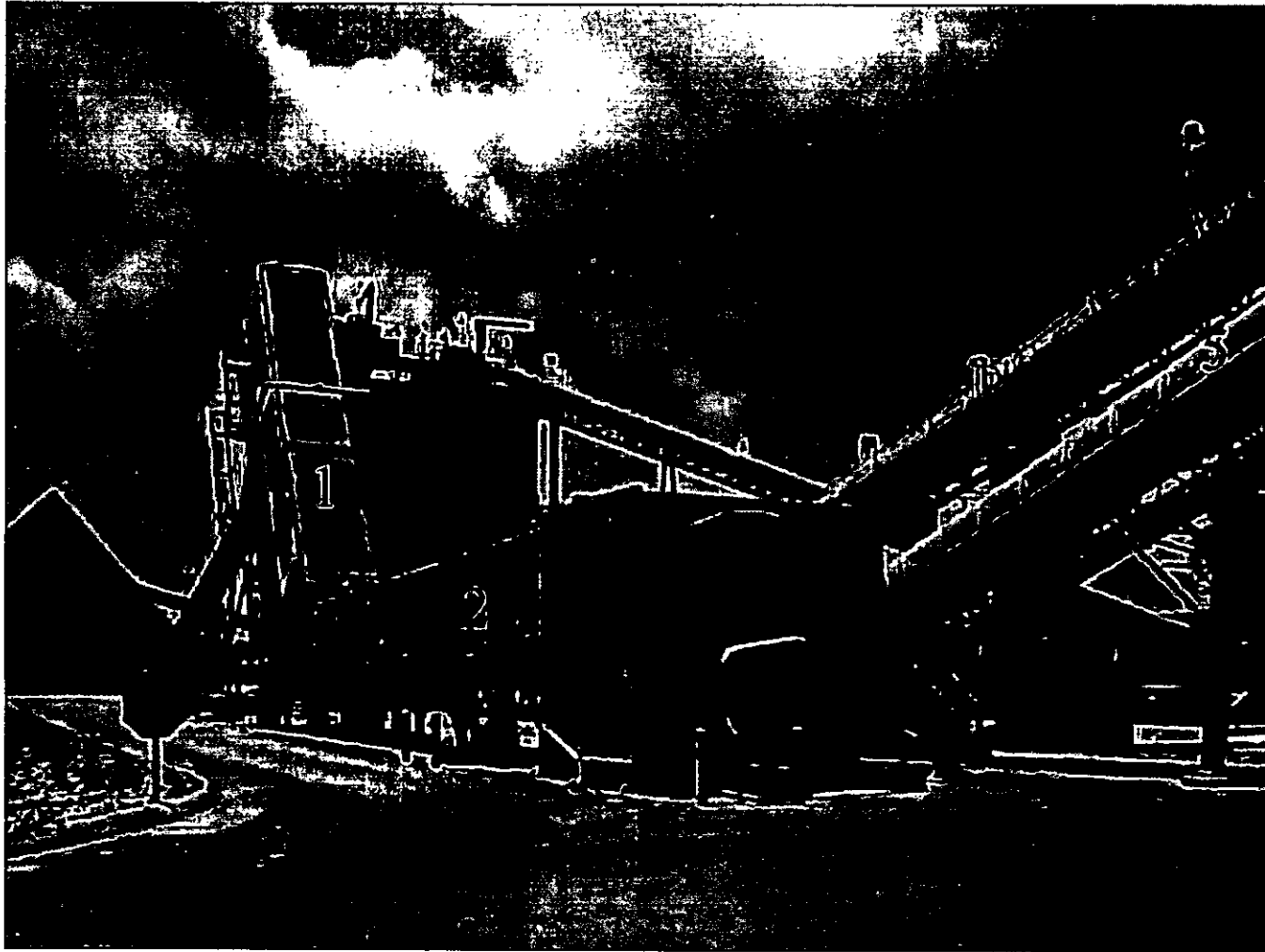
**ATTACHMENT 1**



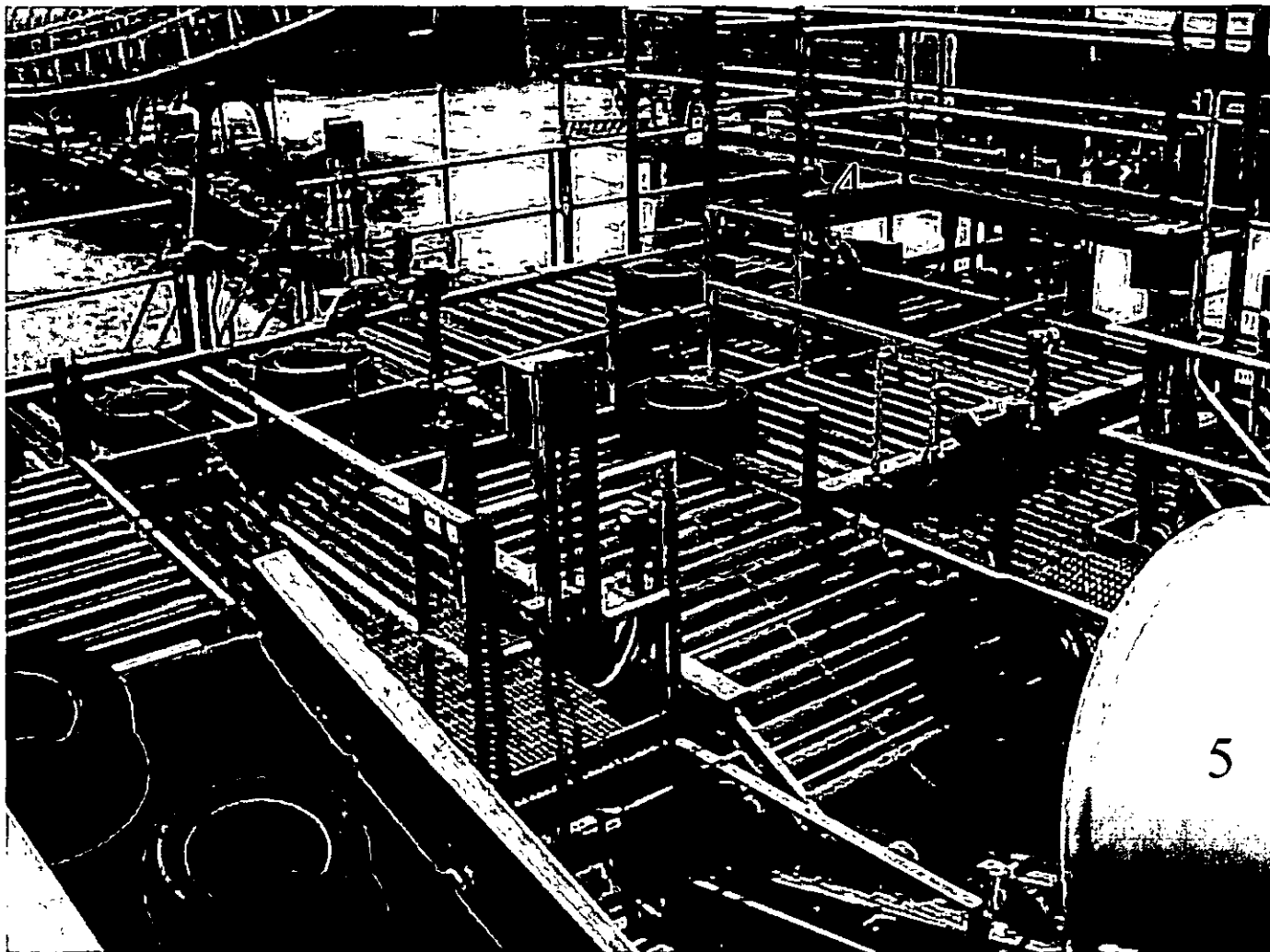
- Whole tires arrive in closed trailers, which are parked in a designated area; (Tires are pre-sorted; trailers contain either passenger/light truck or truck tires, which are 'campaigned,' with periodic switches from one size to the other);
- Trailers are moved onto a trailer tipper (#1), as needed to maintain the feed rate;
- When the trailer tips and dumps, the tires drop into a live bottom hopper (#2);
- A walking floor moves the tires through the hopper;
- A rotating disk tire separator (#3) feeds individual tires onto a belt conveyor;
- On the conveyor sorting system (#4) tires are passed or rejected on size and condition (Rejects are dumped off the system into a collection bin);
- An inclined conveyor (#5) then delivers the tires to Level 3A of the preheat tower;
- A cross-belt on Level 3A (#6) moves the tires to the scale (#7) and double gate (#8);
- The scale spaces the release of tires into the gate for consistent feed rate by weight;
- The double gate limits ambient air infiltration as tires enter the preheat tower;
- The tires then drop approximately 15' from the gate onto the feed shelf; and
- They ignite and burn in the back end of the kiln at >2000° F.



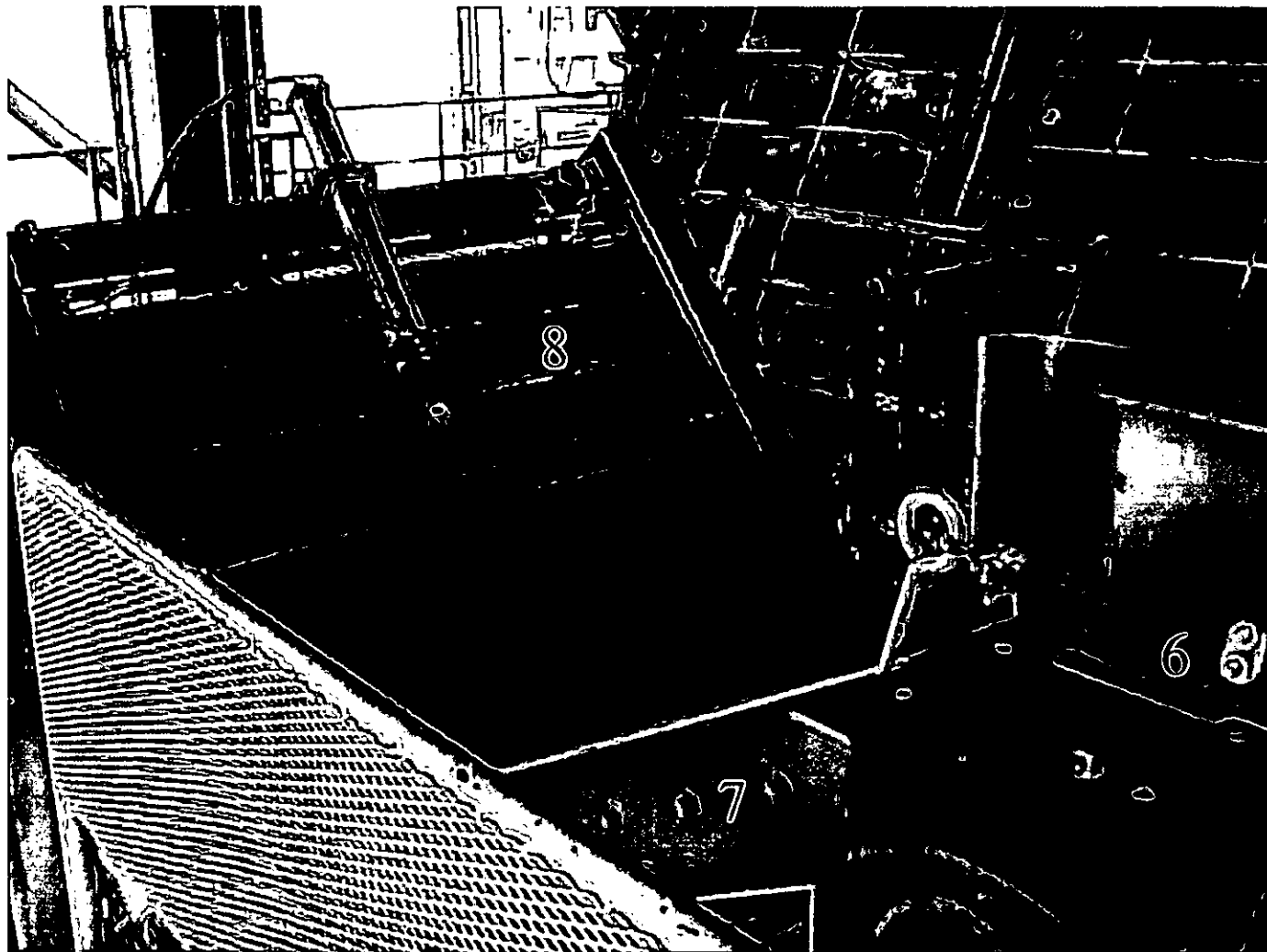
- 1 - Trailer Tipper (with trailer)
- 2 - Live Bottom Hopper
- 3 - Rotating Disk Tire Separator
- 4 - Tire Sorting Conveyor System
- 5 - Inclined Tire Conveyor
- 6 - Cross Belt Conveyor



- 1 - Trailer Tipper
- 2 - Live Bottom Hopper
- 3 - Rotating Disk Tire Separator
- 4 - Tire Sorting Conveyor System
- 5 - Inclined Tire Conveyor



4 - Conveyor Sorting System  
5 - Inclined Tire Conveyor



- 6 - Cross-Belt Conveyor
- 7 - Scale
- 8 - Double Gate

**ATTACHMENT 2**

Summary of Non-Certified CO and NOx CEM Data for Kiln No. 1 and No. 2  
CEMEX Brooksville Cement Plant

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
12/5/2005 10:00	0	56.8	0	87.9	0	88	0	88.5
12/5/2005 11:00	193.4	84.9	0	83.8	638	214.6	0	90.6
12/5/2005 12:00	560.8	94.8	0	75.9	310.4	172	0	97.6
12/5/2005 13:00	879.4	92.6	0	77.7	139.9	315.6	0	102.5
12/5/2005 14:00	1117.6	59.8	0	82	155.6	86.4	0	106.9
12/5/2005 15:00	593	97.5	0	78.5	129.8	114.9	0	106.9
12/5/2005 16:00	896.3	52.5	0	73.1	405.8	319.6	0	106.6
12/5/2005 17:00	881.4	52.8	0	72.9	796.5	93.1	0	104.7
12/5/2005 18:00	1233.5	55.3	0	81	324	275.4	0	114.9
12/5/2005 19:00	1089	100.8	0	78.9	220.6	41.3	0	106.8
12/5/2005 20:00	832.7	151	0	76.6	403.3	59.4	0	92.4
12/5/2005 21:00	945.1	57.8	0	79.8	1034.2	76.4	0	103.7
12/5/2005 22:00	557.6	48.8	0	80.1	120.9	28	0	102.6
12/5/2005 23:00	1152.3	51.5	0	79.8	234.5	131.8	0	104.9
12/6/2005 0:00	537.4	53.7	0	80	188.5	96.6	0	105
12/6/2005 1:00	1004.8	64.6	0	82	1081.4	83.3	0	106.8
12/6/2005 2:00	281.7	71	0	84.8	209	50.5	0	98.7
12/6/2005 3:00	55.7	183.4	0	84.8	864.3	113.5	0	95.1
12/6/2005 4:00	55.3	247.8	0	91.8	91.6	114.1	0	101.8
12/6/2005 5:00	106.8	295.1	0	98.9	151.6	58	0	105
12/6/2005 6:00	78.6	213.4	0	102.6	296.6	45.6	0	103.6
12/6/2005 7:00	95.3	173	0	104.8	132.1	56.2	0	100.1
12/6/2005 8:00	176.8	134	0	105	169.6	223.6	0	103.8
12/6/2005 9:00	190.5	79.3	0	106.1	357.3	140.9	0	105
12/6/2005 10:00	269.1	55.5	0	107	624.9	114.2	0	105.1
12/6/2005 11:00	903.3	38.2	0	108.7	470.9	108.3	0	104.9
12/6/2005 12:00	1075.7	32.5	0	88.6	573.5	104.2	0	102.4
12/6/2005 13:00	1118.4	46.9	0	75.6	320	122.8	0	100.1
12/6/2005 14:00	43.4	83.5	0	82.2	240.2	184.3	0	101.6
12/6/2005 15:00	125.8	89.8	0	94.4	272.7	175.6	0	105.9
12/6/2005 16:00	259.4	109.2	0	95.3	232.1	119.9	0	106.9
12/6/2005 17:00	256.1	164.9	0	103.3	217.8	120.2	0	108.7
12/6/2005 18:00	243.7	136.6	0	105.8	244	101.8	0	109.9
12/6/2005 19:00	300.2	139.3	0	110.3	380	98.1	0	116.6
12/6/2005 20:00	493.8	201	0	111.9	852.8	65.8	0	112.7
12/6/2005 21:00	452.3	241.5	0	109.4	466.5	31.6	0	109.9
12/6/2005 22:00	782.9	51.9	0	94.3	451.5	53.5	0	110
12/6/2005 23:00	46.5	36.5	0	2.8	391.6	26.9	0	110
12/7/2005 0:00	260.2	31.2	0	20.4	563.4	28.8	0	107.6
12/7/2005 1:00	273.3	86.9	0	58	215.7	11.9	0	100
12/7/2005 2:00	54.9	176.3	0	86	171.4	33.9	0	105
12/7/2005 3:00	75.8	171.3	0	97.4	207.2	23.1	0	113.5
12/7/2005 4:00	214.4	194	0	104.6	623.6	30.1	0	96.8
12/7/2005 5:00	71.6	200.6	0	106.5	85.7	106.5	0	103.5
12/7/2005 6:00	103	194.5	0	109.9	498.1	56.6	0	108.6
12/7/2005 7:00	258.1	171.3	0	114.4	96.4	39.5	0	105
12/7/2005 8:00	680.8	60.5	0	110.1	129.6	113.5	0	105
12/7/2005 9:00	155.7	196.4	0	113.8	246.4	145.2	0	104.9
12/7/2005 10:00	277.7	127.2	0	114.8	636.5	69.6	0	105.1
12/7/2005 11:00	252	123.5	0	115.5	435.9	83.2	0	106.5
12/7/2005 12:00	258.6	125.5	0	114.6	471.6	60.4	0	107.1
12/7/2005 13:00	236.3	173.9	0	110.1	513.4	50.7	0	106.9
12/7/2005 14:00	218.5	243.3	0	110.7	403	44.8	0	106.9
12/7/2005 15:00	282.4	194.9	0	111.8	268	23.6	0	101.1
12/7/2005 16:00	210.6	287.4	0	112.4	84.3	53.2	0	97.7
12/7/2005 17:00	225.1	232.6	0	114.2	243.4	30	0	98.7
12/7/2005 18:00	206.3	225.8	0	110.3	110.2	63.3	1	95
12/7/2005 19:00	86.3	242.1	2	112.2	138.9	119	1	96.6
12/7/2005 20:00	95.5	279	2	115.7	191.6	112.7	1	105
12/7/2005 21:00	145.7	258.2	2	118	180.8	49.8	1	103.8
12/7/2005 22:00	92.4	303.4	2	118.9	83.1	43.1	1	95.1
12/7/2005 23:00	92.6	300.1	2	118.7	153.4	159.2	1	102.7
12/8/2005 0:00	71.3	307	2	119.3	270.3	59.1	1	99.5
12/8/2005 1:00	84.3	373.6	2	118.5	155.4	86.4	1	96
12/8/2005 2:00	111.9	413.7	2	119.4	242.9	207.1	1	99.6
12/8/2005 3:00	204.3	432.1	2	118.9	252.2	122.1	1	99.2
12/8/2005 4:00	216.3	404.3	2	118.8	243.1	160.7	1	105
12/8/2005 5:00	134.9	418.2	2	120.3	516.1	85.9	1	105
12/8/2005 6:00	197.1	316.9	2	120.8	460.1	78.9	0.9	104.1
				Start				Start
				Ammonia				Ammonia

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
12/8/2005 7:00	208.2	298.8	2	121.8	336.1	42.2	1	85.5
12/8/2005 8:00	191.8	332.7	2	107.3	443.7	102.2	1	95.5
12/8/2005 9:00	183.1	304.7	2	110.6	291.4	134	1	96.2
12/8/2005 10:00	475.3	267.8	2	109.6	394.7	123.4	1	98.1
12/8/2005 11:00	332.6	143.7	2	111.3	292.5	119.2	1	99.5
12/8/2005 12:00	251.8	98.8	2	109.1	228.6	114.4	1	100.1
12/8/2005 13:00	398.6	162.4	2	106.1	256.6	92.3	1	100.9
12/8/2005 14:00	78.1	378	2	112.7	291.4	65.7	1	101
12/8/2005 15:00	121.5	243.1	2	115.6	234.2	68.2	1	101
12/8/2005 16:00	210.3	251.4	2	116.9	130.2	52.1	1	100.5
12/8/2005 17:00	149.6	298.9	2	118.6	80.6	83.6	1	95.2
12/8/2005 18:00	125.1	238.5	2	117.9	116.1	177.3	1	98.7
12/8/2005 19:00	162.4	271.6	2	118.7	229	78.3	1	101
12/8/2005 20:00	66.4	407.4	2	118.9	207.8	66.4	1	102.5
12/8/2005 21:00	74.6	528	2	118.9	111.1	43.6	1	95.1
12/8/2005 22:00	72.7	609.1	2	119.2	73.3	139.8	1	96.8
12/8/2005 23:00	75	604.9	2	118.9	225.1	132.8	1	101.7
12/9/2005 0:00	77.6	551.7	2	119	69.7	68.4	1	95.4
12/9/2005 1:00	83.8	505.9	2	119.1	190	144.3	1	101.2
12/9/2005 2:00	82.2	588.7	2	119	191	84.1	1	102.5
12/9/2005 3:00	91.4	495.3	2	119.1	243.2	106.7	1	105
12/9/2005 4:00	91.1	508.3	2	118.9	257.9	58.3	1	105.5
12/9/2005 5:00	249.1	225.5	2	119.1	384.6	49.1	1	97.9
12/9/2005 6:00	92.7	565.6	2	119	72	52.2	1	92.3
12/9/2005 7:00	93.3	464.9	2	118.9	261.5	217.3	1.6	94
12/9/2005 8:00	80.4	363.2	2	119.3	114.1	105.5	2	95.2
12/9/2005 9:00	76.1	390.2	2	118.6	129.2	103.1	2	101.2
12/9/2005 10:00	314.3	210.6	2	114.9	185.9	79.5	2	104.1
12/9/2005 11:00	94.8	206	2	113.6	110.4	49.6	2	107.1
12/9/2005 12:00	461.5	125.2	2	112.3	273.2	86.6	1	97.8
12/9/2005 13:00	67.7	234.1	2	114.3	58.3	127.3	1	99.6
12/9/2005 14:00	79.1	265	2	118.8	68.9	193.8	1	103.4
12/9/2005 15:00	137	106.7	2	109.2	63.8	211.2	1	105
12/9/2005 16:00	118.8	223.5	2	109.5	194.1	179.9	1.1	105
12/9/2005 17:00	120	158.8	2	101.3	65.1	93.4	1.1	104.9
12/9/2005 18:00	396.3	132.8	2	102.1	68.3	53.9	1	105.2
12/9/2005 19:00	77	274.8	2	103.5	86	165.1	1	105.4
12/9/2005 20:00	426.9	190	1.5	96.6	660.6	236.9	1	94.3
12/9/2005 21:00	120.5	78.6	2	102.3	66.3	323.3	1.4	108
12/9/2005 22:00	107.1	145	2	106.1	179.7	370.5	1.2	102.8
12/9/2005 23:00	134.1	197.4	2	116	57.2	282.5	1.5	104.1
12/10/2005 0:00	488.7	151.9	2	113.9	69.9	415.6	1.6	118
12/10/2005 1:00	231.3	192.6	2	116.4	81.4	360	1.6	123.5
12/10/2005 2:00	140.1	238.5	2	117	91.1	216.8	1.6	127.1
12/10/2005 3:00	89.5	299.8	2	118.6	103.3	91.8	1.6	128.3
12/10/2005 4:00	74.4	281.3	2	118.8	138.5	42.2	1.6	127.9
12/10/2005 5:00	73.9	465.3	2	119.2	228.3	48.4	1.6	127.5
12/10/2005 6:00	74.9	489.4	2	119.2	206.3	55.6	1.2	122.2
12/10/2005 7:00	86.7	562.3	2	119	146.4	56	1	123.3
12/10/2005 8:00	93.8	603.5	2	119	81.9	119.8	1	128.7
12/10/2005 9:00	79.8	515.8	2	119	84.8	110.5	1	131.6
12/10/2005 10:00	60.8	604.9	2	119	87.1	89.1	1	132
12/10/2005 11:00	67.7	597	2	118.8	90	46.1	1	132
12/10/2005 12:00	77.7	633.7	2	119	87.6	50	1	132
12/10/2005 13:00	72.8	666.4	2	119.1	90.6	48.9	1	132.1
12/10/2005 14:00	58.2	636.4	2	119	94.8	84.5	1	132.3
12/10/2005 15:00	58.3	735.2	2	119	84.2	94.8	0.9	132.1
12/10/2005 16:00	57.5	800.2	2	119.2	315.7	34.7	1	105.6
12/10/2005 17:00	58.4	791.4	2	119.1	64	196.2	1	123.7
12/10/2005 18:00	59.1	842.9	2	119.2	186	190.5	1.4	137.9
12/10/2005 19:00	208.4	381.6	2	119.3	89.8	48.5	1	127.7
12/10/2005 20:00	73	257.4	2	118.7	72.3	85	1	112.2
12/10/2005 21:00	67.8	156.6	2	118.7	83.7	174	1.1	129.5
12/10/2005 22:00	83.4	571.2	2	119	347.9	73.1	1	120
12/10/2005 23:00	72.9	711.5	2	119.2	79.2	112.4	1	122.5
12/11/2005 0:00	111	410.4	2	121.2	80.1	126.5	1	127.8
12/11/2005 1:00	271.5	434.2	2	119.3	123.9	74.5	1	133.7
12/11/2005 2:00	72.8	718	2	119.1	152.3	39.6	1	132.8
12/11/2005 3:00	68.8	802.7	2	119.1	119.2	21.1	1	120
12/11/2005 4:00	60.8	660.3	2	119.1	83.1	61.5	1	120.5
12/11/2005 5:00	72	661.2	2	118.7	117.5	86.6	1	120



Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
12/11/2005 6:00	76.3	690.3	2	119.2	73.7	118.8	1	123.8
12/11/2005 7:00	69.5	719.5	2	118.9	80.2	152	1	127.9
12/11/2005 8:00	70.9	686.9	2	118.9	83.4	110	0.9	127.9
12/11/2005 9:00	69.3	748.7	2	119	83.6	111.2	1	128.1
12/11/2005 10:00	65.4	723.6	2	119.2	80.4	86.8	1	128
12/11/2005 11:00	75.9	777.1	2	119	79.8	83	1	128.1
12/11/2005 12:00	77.9	801.5	2	118.8	82.6	66.3	1	128.2
12/11/2005 13:00	68.2	805.8	2	119.1	85.1	69.3	1	130
12/11/2005 14:00	66.9	922.8	1.8	121.6	91.6	77.6	1	130.1
12/11/2005 15:00	48.3	179	3.2	4.7	103.9	52.4	1	130.2
12/11/2005 16:00	22.9	2.9	1.1	0	94.6	63.3	1	130.2
12/11/2005 17:00	14.3	1.8	0	0	93.2	61.2	1	130.2
12/11/2005 18:00	11.8	1.6	0	0	105.4	80.2	1	130.3
12/11/2005 19:00	9.5	1.2	0	0	94.7	125.8	1	130.1
12/11/2005 20:00	8.5	1.2	0	0	94.8	123.4	1	130.2
12/11/2005 21:00	8.5	1.3	0	0	103.1	169.9	1	130.1
12/11/2005 22:00	8.1	1.3	0	0	99.6	227.5	1.8	130.1
12/11/2005 23:00	7.9	1.3	0	0	96.4	159.8	2.5	130.3
12/12/2005 0:00	8	1.3	0	0	99.2	224.4	2.6	132.8
12/12/2005 1:00	8	1.1	0	0	152.4	149.7	2.2	134.9
12/12/2005 2:00	8	1.2	0	0	136.1	272.9	2	137.6
12/12/2005 3:00	7.9	1.1	0	0	314.9	168.6	2	141
12/12/2005 4:00	8.2	0.9	0	0	325.1	172.7	2	141.2
12/12/2005 5:00	8.2	1.3	0	0	386.7	51.3	2	141.4
12/12/2005 6:00	7.9	1.2	0	0	333.5	81.3	2	141.3
12/12/2005 7:00	8.1	1	0	0	378.9	56.6	1.8	141.5
12/12/2005 8:00	8.7	1.2	0	0	293.4	40.4	1.5	141.2
12/12/2005 9:00	8.1	1.4	0	0	569.4	31.9	1.5	136.7
12/12/2005 10:00	8.4	1.5	0	0	542	14.2	1.5	125.5
12/12/2005 11:00	8.5	1.5	0	0	157.5	33.5	1.5	125.6
12/12/2005 12:00	8.3	1.7	0	0	108.2	114.9	1.7	127.4
12/12/2005 13:00	8.7	1.5	0	0	115.8	140.4	1.9	136.7
12/12/2005 14:00	8.4	1.2	0	0	211.9	45.2	1.5	139
12/12/2005 15:00	7.8	1.2	0	0	159	73.6	1.5	139.2
12/12/2005 16:00	8.3	1.6	0	0	177.6	35.8	1.5	139.1
12/12/2005 17:00	8.2	1.8	0	0	222.4	17	1.4	138.9
12/12/2005 18:00	8.1	1.6	0	0	291.2	12.9	1.3	109.6
12/12/2005 19:00	8.3	1.4	0	0	73.9	459.1	1.4	131.5
12/12/2005 20:00	8.4	1.5	0	0	154.3	199	1.7	147.6
12/12/2005 21:00	8.7	1.6	0	0	280.6	115.9	2.1	147.5
12/12/2005 22:00	8.3	1.4	0	0	301.1	103.9	1.9	147.5
12/12/2005 23:00	8.2	1.4	0	0	225.2	165.5	0.9	147.6
12/13/2005 0:00	8.5	1.6	0	0	464.4	117.9	1.7	146
12/13/2005 1:00	8.4	1.4	0	0	367.8	100.1	1.6	145.9
12/13/2005 2:00	8.4	1.6	0	0	461.7	27.4	1.7	145.2
12/13/2005 3:00	8.4	1.4	0	0	300.9	13.1	1.6	138.4
12/13/2005 4:00	8.3	1.5	0	0	205.3	11.6	1.6	131.8
12/13/2005 5:00	8.4	1.4	0	0	184.7	17.8	1.5	131.4
12/13/2005 6:00	8.2	1.7	0	0	209.1	26.6	1.5	131.8
12/13/2005 7:00	8.1	1.5	0	0	151.4	36.8	1.4	134.4
12/13/2005 8:00	8.9	1.7	0	0	130.4	52.1	1.3	134.3
12/13/2005 9:00	8.5	1.5	0	0	146.5	52.6	1.3	134.1
12/13/2005 10:00	8.4	1.6	0	0	105.8	112.2	1.3	134.5
12/13/2005 11:00	8.6	1.4	0	0	146	158.5	1.5	134.3
12/13/2005 12:00	8.6	1.6	0	0	96.2	213.3	1.5	135.5
12/13/2005 13:00	8.7	1.5	0	0	123.4	112.9	1.4	136.8
12/13/2005 14:00	8.5	1.6	0	0	99	141.1	1.4	138.3
12/13/2005 15:00	8.6	1.6	0	0	93.5	195.4	1.3	138.1
12/13/2005 16:00	8.9	1.3	0	0	92.3	198	1.1	139.1
12/13/2005 17:00	8.9	1.5	0	0	90.8	161.2	1	139.1
12/13/2005 18:00	9	1.2	0	0	87.4	170.8	1	138.9
12/13/2005 19:00	8.6	1.5	0	0	92.1	165.6	0.9	139.2
12/13/2005 20:00	8.4	1.3	0	0	92.3	131.2	0.9	139
12/13/2005 21:00	8.4	1.1	0	0	95.4	112.8	0.8	139.1
12/13/2005 22:00	8.5	1.2	0	0	98.8	115.4	0.8	139.1
12/13/2005 23:00	8.9	1.5	0	0	99.1	114.8	0.8	139.1
12/14/2005 0:00	8.7	1.4	0	0	91.1	263.9	0.7	139.2
12/14/2005 1:00	8.6	1.2	0	0	92.9	342.4	0.7	139.5
12/14/2005 2:00	8.8	1.2	0	0	92.1	314.5	0.7	140.1
12/14/2005 3:00	8.8	1.3	0	0	90.1	301.5	0.7	140
12/14/2005 4:00	8.9	1.5	0	0	88.8	278.1	0.7	140.1

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
12/14/2005 5:00	9.2	1.4	0	0	91	276.5	0.7	140.1
12/14/2005 6:00	8.9	1.5	0	0	93	266.2	0.6	140.1
12/14/2005 7:00	8.5	1.4	0	0	95	233.7	0.6	140
12/14/2005 8:00	9.2	1.3	0	0	156.4	198.5	0.6	140.1
12/14/2005 9:00	8.4	1.4	0	0	88	245.4	0.6	140.1
12/14/2005 10:00	8.8	1.2	0	0	116.4	179.4	0.8	140
12/14/2005 11:00	9	1.5	0	0	200.1	107.4	0.8	138.9
12/14/2005 12:00	8.7	1.6	0	0	195.3	60.4	0.8	136.6
12/14/2005 13:00	8.5	1.6	0	0	134.4	45.8	0.8	131.1
12/14/2005 14:00	8.7	1.7	0	0	203.9	71.9	0.8	127.2
12/14/2005 15:00	8.9	1.4	0	0	79.7	405.3	0.8	126.9
12/14/2005 16:00	9.4	1.6	0	0	81.9	545	0.7	127.8
12/14/2005 17:00	9.3	1.5	0	0	976.3	220	0.8	117.4
12/14/2005 18:00	25.3	1.4	0	0	169.5	440.2	0.8	131.6
12/14/2005 19:00	77.2	1.5	0	0	87.1	400.3	0.8	137.7
12/14/2005 20:00	82.3	2.1	0	0	238.1	56.9	0.7	117.8
12/14/2005 21:00	86.3	2.5	0	0	84.3	381.3	0.7	126.9
12/14/2005 22:00	87	3.3	0	0	78.2	70.1	0.7	120
12/14/2005 23:00	87.4	3.4	0	0	77.9	127.3	0.7	120.1
12/15/2005 0:00	88.1	3.6	0	0	78.2	167	0.7	122.7
12/15/2005 1:00	85.5	4.6	0	0	86.2	145.6	0.6	124.9
12/15/2005 2:00	60.1	4	0	0	99.1	79.4	0.6	124.9
12/15/2005 3:00	95.1	4.6	0	0	168.5	59.6	0.6	125
12/15/2005 4:00	90.8	5.1	0	0	109.9	47.1	0.6	125.1
12/15/2005 5:00	82.5	5.6	0	0	128.5	61.4	0.5	125
12/15/2005 6:00	65.9	6.1	0	0	163	88.2	0.5	125
12/15/2005 7:00	41.3	6.4	0	0	157.2	147.5	0.4	125.1
12/15/2005 8:00	33.2	6.7	0	0	141.3	178.8	0.5	124.9
12/15/2005 9:00	20.8	7.3	0	0	169.9	289	0.6	126.4
12/15/2005 10:00	13.5	8.6	0	0	225.8	163	0.6	128
12/15/2005 11:00	9.8	9.3	0	0	453.7	182.6	0.6	123.4
12/15/2005 12:00	7.3	10.5	0	0	413.2	91.4	0.6	120.1
12/15/2005 13:00	6.8	11.1	0	0.4	102.6	249.7	0.7	120.1
12/15/2005 14:00	6.4	10.5	0	0	73.5	425	0.8	125.2
12/15/2005 15:00	5.3	10.5	0	0	91.8	248.2	0.8	131.2
12/15/2005 16:00	969.9	143.2	0	31.6	183.6	96.7	1.2	132.1
12/15/2005 17:00	204.8	316.4	0	45.2	244.9	107.9	1.8	122.7
12/15/2005 18:00	251	299.9	1	83.4	95.7	164.2	1.7	120.1
12/15/2005 19:00	60.7	88.9	1.9	94.3	130.1	172.1	1.5	120
12/15/2005 20:00	67.8	376.7	1.5	109.9	86.9	248	1.5	120
12/15/2005 21:00	1098.6	145.2	0.2	29.1	86.1	340.9	1.5	121.3
12/15/2005 22:00	13.2	1.7	1.3	0	82.6	530.5	1.2	129.7
12/15/2005 23:00	12.4	2	2.6	0.1	84.6	172.9	0	116.9
12/16/2005 0:00	10.9	1.6	0	0	67.2	304.1	0	110.6
12/16/2005 1:00	15.5	1.5	0	0	252.5	455.5	0	114.2
12/16/2005 2:00	17.2	1.4	0	0	142.3	163.5	0	88.5
12/16/2005 3:00	10.3	1.4	0	0	52.8	309	0	94.8
12/16/2005 4:00	9.3	1.3	0	0	63	357	0	104
12/16/2005 5:00	9.5	1.4	0	0	169.5	210.6	0	102.9
12/16/2005 6:00	9.6	1.4	0	0	61.5	215.1	0	100.1
12/16/2005 7:00	10	1.2	0	0	62	343.3	0	99.9
12/16/2005 8:00	11	1.3	0	0	72.7	473.1	0	101.8
12/16/2005 9:00	10.2	1.4	0	0	270.6	383.6	0	105.1
12/16/2005 10:00	10.6	1.6	0	0	202.4	331.4	0	105.2
12/16/2005 11:00	9.6	1.5	0	0	693.8	323.4	0	105.2
12/16/2005 12:00	29.9	1.8	0	0	417.3	221.4	0	105.3
12/16/2005 13:00	81.8	4.7	0	0	228.6	257.2	0	105.3
12/16/2005 14:00	84.4	4.6	0	0	366.9	212	0	38.1
12/16/2005 15:00	90.7	3.3	0	0	23	1.5	0	0
12/16/2005 16:00	84.2	4.7	0	0	1.7	0.9	0	0
12/16/2005 17:00	87.5	5.2	0	0	0.2	0.9	0	0
12/16/2005 18:00	117.7	6.1	0	0.1	0	0.8	0	0
12/16/2005 19:00	322.4	5.4	0	0	0.1	0.6	0	0
12/16/2005 20:00	11.1	6.7	0	0	0	0.7	0	0
12/16/2005 21:00	8.4	8.2	0	0	107.2	3.9	0	0
12/16/2005 22:00	7.4	10.9	0	0.1	74.1	8.2	0	0
12/16/2005 23:00	6.5	10.3	0	0.1	0.2	9.4	0.3	19.6
12/17/2005 0:00	6	9.8	0	3.1	143	72.9	1	50.4
12/17/2005 1:00	21.5	7.9	0	5.3	37.9	88.1	1	61.9
12/17/2005 2:00	9.5	1.4	0	0	36.9	341	1	80.3
12/17/2005 3:00	9.1	1.2	0	0	50.6	393.4	1	94.6

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
12/17/2005 4:00	20.6	4.4	0	0	62.6	434.9	0.9	113.8
12/17/2005 5:00	7.1	9.2	0	0	61.2	194.2	0.3	119.8
12/17/2005 6:00	9.7	12.8	0	3.5	56.9	120	0	115.4
12/17/2005 7:00	61.3	4.1	0	0.1	56	144.6	0	115
12/17/2005 8:00	73.5	3.5	0	0	60.1	197.9	0	112.4
12/17/2005 9:00	52.5	6.5	0	0	62.1	536.6	0	112.5
12/17/2005 10:00	34.7	7.2	0	0	67.8	688.6	0	119.7
12/17/2005 11:00	9	8.6	0	0	70.8	586.6	0	121
12/17/2005 12:00	7.2	9.4	0	0	71.4	686.6	0	124.7
12/17/2005 13:00	12.5	10.8	0	0	75	831.4	0	130.7
12/17/2005 14:00	12.8	9.6	0	0	73.9	761.6	0	132.7
12/17/2005 15:00	7.4	9.4	0	0	72.3	476.9	0	131.9
12/17/2005 16:00	7.6	9.4	0	0	73.9	515.9	0	135.8
12/17/2005 17:00	7.3	9.3	0	0	79.9	645.2	0	137.9
12/17/2005 18:00	7	11.7	0	7.8	85.6	411.8	0	138
12/17/2005 19:00	43.8	15.6	0	31.4	89.5	308.3	0	138
12/17/2005 20:00	56.2	17.1	0	34.8	88.8	307.2	0	138.2
12/17/2005 21:00	52.2	32.9	0	32.1	111.9	284.1	0	137.8
12/17/2005 22:00	381	6.7	0	0	122	342.1	0	138
12/17/2005 23:00	18.1	2	0	0	115	342.6	0	138
12/18/2005 0:00	41.2	10.6	0	0	88.9	249.3	0	134.3
12/18/2005 1:00	10.4	14.1	0	0	78.8	334.3	0.1	130.1
12/18/2005 2:00	15.4	9.1	0	0	87.2	282	0	130
12/18/2005 3:00	58	1.6	0	0	75.2	384.2	0	134.2
12/18/2005 4:00	9.8	1.4	0	0	86.2	378.8	0	135.7
12/18/2005 5:00	9.3	1.4	0	0	126.3	588.6	0	142.2
12/18/2005 6:00	9.4	1.2	0	0	145.7	435.2	0	145
12/18/2005 7:00	9.2	1.2	0	0	224.3	203.7	0	141.4
12/18/2005 8:00	10.2	1.3	0	0	137.3	271	0	140
12/18/2005 9:00	9.3	1.1	0	0	85.5	230.2	0	138.1
12/18/2005 10:00	9.3	1.3	0	0	74.5	185.4	0	129.9
12/18/2005 11:00	9.1	1.1	0	0	89.5	213.2	0	130.7
12/18/2005 12:00	9.2	1.2	0	0	125.3	289.4	0	130
12/18/2005 13:00	9.4	1.2	0	0	83.6	355.7	0	131.4
12/18/2005 14:00	9	1.5	0	0	76.2	391	0	129.9
12/18/2005 15:00	8.9	1.4	0	0	77.5	714.4	0	135.1
12/18/2005 16:00	9	1.4	0	0	144.2	337.7	0	136.3
12/18/2005 17:00	112.8	1.9	0	0	83.4	239.7	0	135.5
12/18/2005 18:00	165.3	4.1	0	0	80.7	200.7	0	130
12/18/2005 19:00	127.5	5	0	0	77.5	211.5	0	130.1
12/18/2005 20:00	40.4	8.3	0	0	82.2	205.4	0	129
12/18/2005 21:00	12.5	11.7	0	0	79.8	319.2	0	120.3
12/18/2005 22:00	168.4	11.1	0	2.2	69.2	337.1	0	128.2
12/18/2005 23:00	475.9	2	0	0	73.1	319.4	0	132.8
12/19/2005 0:00	96	8.2	0	0	74.5	310.8	0	133
12/19/2005 1:00	8.6	12.3	0	0	74.7	300.5	0	133.1
12/19/2005 2:00	7.6	13	0	0	79	263.2	0	132.9
12/19/2005 3:00	7.1	19.5	0	0.4	76.8	262.9	0	133
12/19/2005 4:00	17.3	95.7	0	28.7	108.4	259.8	0	133
12/19/2005 5:00	303.3	185.6	0	66.1	73.8	270.9	0	134.3
12/19/2005 6:00	56.8	227	0	73.5	76.2	218.7	0	135.2
12/19/2005 7:00	47.2	320.7	0	79	72.1	216.9	0	133.5
12/19/2005 8:00	53.6	344.8	0	85.4	72.4	234.5	0	134.4
12/19/2005 9:00	58.1	376.3	0	91.5	75.7	305	0	136.9
12/19/2005 10:00	65.3	301.1	0	96.7	77.6	279	0	135.1
12/19/2005 11:00	138.2	306.9	0	101.4	74.4	320.8	0	135.1
12/19/2005 12:00	68.3	376.3	0.7	103.4	136.7	358.2	0	135
12/19/2005 13:00	157.8	409.2	1.5	106.1	76.3	270.9	0	135
12/19/2005 14:00	227.9	348.9	1.5	115.6	76.1	180.6	0	135.1
12/19/2005 15:00	75.4	471.8	1.5	119.5	201.4	151.7	0	129.5
12/19/2005 16:00	77.2	522.5	1.5	120.2	65.3	117.8	1.4	124.9
12/19/2005 17:00	78.2	610.1	1.5	120.7	128	39.6	1.5	125
12/19/2005 18:00	76.1	577.2	1.5	122	67.3	158.1	1.5	125
12/19/2005 19:00	85	624.4	1.5	123.5	71.9	142.6	1.5	125
12/19/2005 20:00	242.3	531.9	1.5	126.8	72.1	201.4	1.5	125.4
12/19/2005 21:00	150.1	617.5	1.5	128.5	107.4	231.6	1.5	128.1
12/19/2005 22:00	80.6	758.5	1.5	130.3	77.6	201.8	1.5	129.9
12/19/2005 23:00	87.9	817	1.5	130.2	79.5	288.5	1.5	130
12/20/2005 0:00	193.8	643.7	1.5	130.1	80.2	221.9	1.5	130
12/20/2005 1:00	266.9	339	1.5	130.9	80.4	185	1.5	130
12/20/2005 2:00	360.1	245.5	1.5	130.6	78.1	343.1	1.5	132.1

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
12/20/2005 3:00	366.5	341.7	1.5	133.5	94.2	244.7	1.5	135.5
12/20/2005 4:00	353.9	303.3	1.5	130.2	100.4	174.3	1.5	138
12/20/2005 5:00	245.4	245	1.5	130.3	175.1	48.3	1.5	136
12/20/2005 6:00	261.5	261.1	1.5	131.9	93.3	60.6	1.5	135.1
12/20/2005 7:00	379.5	130	1.5	128.1	157	39.7	1.5	135
12/20/2005 8:00	352	230.8	1.9	129.5	95.1	68.6	1.5	135
12/20/2005 9:00	282.4	179.9	2.8	134	97.2	63.6	1.5	135.1
12/20/2005 10:00	194.6	151.7	2.5	133.3	91.1	70.9	1.5	135
12/20/2005 11:00	233.7	68.1	2.5	135.8	154.8	78.9	1.5	135
12/20/2005 12:00	203.5	102	1.7	135.7	91	90.8	1.5	134.7
12/20/2005 13:00	170.5	147.4	1.6	136.5	189.5	89.2	1.5	135.1
12/20/2005 14:00	217	133.4	1.5	136.3	203.4	104.5	1.5	135
12/20/2005 15:00	135.8	124.5	1.7	136.5	213.9	127.8	1.5	134.9
12/20/2005 16:00	187.4	156.2	2	139.1	168.3	94.4	1.5	135
12/20/2005 17:00	243.6	123.5	2.4	142.1	133.2	81.4	1.5	134.9
12/20/2005 18:00	204.9	107.7	2	140.1	225.4	88.8	1.5	135.2
12/20/2005 19:00	184.5	144.6	2	140.1	174.3	130.4	1.5	134.9
12/20/2005 20:00	319.6	121.5	2	139.9	123.3	110.2	1.5	135.1
12/20/2005 21:00	305.7	115.7	2	136.6	283.9	113.1	1.5	135.1
12/20/2005 22:00	299.4	217.8	2	140	139.1	80.8	1.5	137.2
12/20/2005 23:00	122.2	325.1	2	140	86.8	225.3	1.5	140
12/21/2005 0:00	115.1	399.8	2	139.9	90.6	127.4	1.5	140
12/21/2005 1:00	180.8	403.9	2	140	153.8	172.3	1.5	140
12/21/2005 2:00	255.9	261	2	136.2	311	139	1.5	140.1
12/21/2005 3:00	544.3	333.1	2	133.7	384.5	69.5	1.5	136.5
12/21/2005 4:00	423.8	181.3	2	131.2	240.2	273.6	0.4	125
12/21/2005 5:00	282.4	373.8	2	135.1	256.6	246.5	0	122
12/21/2005 6:00	174.5	403.5	2.3	137.9	69.2	312.2	0	130.1
12/21/2005 7:00	305.3	178.7	3.2	139	76.6	325.9	0	132.5
12/21/2005 8:00	447.7	231.5	2.6	133.9	81.1	148.8	1.3	134
12/21/2005 9:00	202	321.6	3.5	138.8	97.6	56.4	1.5	134.1
12/21/2005 10:00	197.1	163.7	3.6	140.3	102.7	71.5	1.5	133.9
12/21/2005 11:00	257.7	73	3	141.9	102.4	139.9	1.5	134.1
12/21/2005 12:00	192.3	140	1.5	142.3	89.6	160.9	1.5	133.9
12/21/2005 13:00	123.9	184.3	2.3	142.2	182.3	137	1.5	134
12/21/2005 14:00	183.6	160.3	3.2	142.1	128.1	107.9	1.5	133.9
12/21/2005 15:00	191	191.6	4.1	144.1	158.5	126.3	1.5	133.9
12/21/2005 16:00	129.7	161.3	4.5	144.2	136.5	389.2	1.6	134
12/21/2005 17:00	258.9	140.6	2.1	113.3	73.1	466.2	2	132.1
12/21/2005 18:00	240.9	495.4	2	118.7	80.8	420.9	1.3	141.4
12/21/2005 19:00	233.6	465.8	2	119.1	155.8	98.4	1.9	139.2
12/21/2005 20:00	123.8	541.2	2	118.7	131.8	8.2	2	131
12/21/2005 21:00	120.9	574.6	2	119.2	122.2	15.3	2	125.9
12/21/2005 22:00	66.7	658.1	2	119	74.3	110.1	2	121
12/21/2005 23:00	66.6	511.4	2	119	112.1	416.2	2	134
12/22/2005 0:00	63.9	242.6	2	118.8	131.4	349.4	2	143.3
12/22/2005 1:00	63.2	142	2	119	301.7	168.7	2	147.5
12/22/2005 2:00	64.3	128.4	2	118.8	104	9.4	2	124.2
12/22/2005 3:00	64.8	87.6	2	113.4	77.4	70.6	2	129
12/22/2005 4:00	61.8	101.1	2	110.2	87.8	28.3	2	129.9
12/22/2005 5:00	62.8	215.6	2	113.7	86.1	14.9	2	125.7
12/22/2005 6:00	62.9	288	2	112.1	93	27.5	2	123.4
12/22/2005 7:00	64.1	453.4	2.5	113.9	91	112.2	2	129.1
12/22/2005 8:00	68.5	466.3	3.1	116.2	97.9	82.2	2	125.1
12/22/2005 9:00	66.5	475.8	4	118.6	123.3	206.5	2	126.2
12/22/2005 10:00	69	486.9	4	119	113.2	191.9	2	127
12/22/2005 11:00	69.9	553.1	3.9	119	91.3	115.2	2	126.9
12/22/2005 12:00	71.1	565	4	119.1	90.1	180.7	2	126.3
12/22/2005 13:00	72.2	587.9	4	120.5	86.1	219.9	2	128
12/22/2005 14:00	71.6	609.9	4	119.6	116.7	95.6	1.8	130.2
12/22/2005 15:00	93.8	645	4.3	119.1	154.2	144.6	1.5	129.7
12/22/2005 16:00	64.2	626.4	2.6	119.1	97.7	105.8	1.5	130.1
12/22/2005 17:00	62.7	784.1	3.7	118.8	104.8	101.8	1.5	130
12/22/2005 18:00	67.6	685.8	2.6	118.7	170.7	123.5	1.5	129.8
12/22/2005 19:00	53.1	109	2.8	90.5	100.9	149.9	1.5	130.2
12/22/2005 20:00	105.6	112.8	3.5	113.4	167.6	135.7	1.5	129.9
12/22/2005 21:00	111.3	19.5	3.5	118.6	152.4	140.8	1.5	130.1
12/22/2005 22:00	117.5	11.9	3.5	119	366.5	115.6	1.5	130.2
12/22/2005 23:00	308.1	11.7	3.5	109.2	568.3	108.9	1.5	129.7
12/23/2005 0:00	116.3	11.6	3.2	108.3	212.2	200.6	1.7	130.1
12/23/2005 1:00	65	76.9	2.5	109.8	554.7	204.9	2	133.2

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
12/23/2005 2:00	64.5	80.8	2.5	109.1	672.4	145	1.7	133.6
12/23/2005 3:00	59.4	117.3	2.5	107.9	198	169.1	1.9	130
12/23/2005 4:00	53.8	124.1	2.5	104.5	315.1	198.2	2.1	131.8
12/23/2005 5:00	55.5	237.5	2.5	105.8	169.4	193.8	1.9	137.6
12/23/2005 6:00	103.7	206.5	2.5	106.6	298	84.7	1.7	134.4
12/23/2005 7:00	55.9	176.3	2.5	104.7	411.7	61.1	1.5	129.9
12/23/2005 8:00	232.8	306.6	2.5	104.5	156.3	67.6	1.5	130.1
12/23/2005 9:00	68.8	497.2	2.5	105.1	335.2	225.5	1.5	129.9
12/23/2005 10:00	59.9	0	2.5	111.8	147	130.6	1.5	130.1
12/23/2005 11:00	132.3	437.1	3.4	117.5	174.9	115	1.9	130
12/23/2005 12:00	146	288.5	4.5	118.9	123	109.1	2	129.9
12/23/2005 13:00	116.8	207.2	4.5	119	233.6	110.6	2	130.4
12/23/2005 14:00	70	100.6	4.5	119	221	362.1	1.9	130
12/23/2005 15:00	71.5	76.6	4.5	118.9	89.7	463.4	2.1	142.6
12/23/2005 16:00	73.3	69.3	4.5	118.9	966.3	225.8	2	139.4
12/23/2005 17:00	62.9	52.8	4.2	119.1	162.3	44.8	2	131.2
12/23/2005 18:00	62.2	180.1	3.6	119	124	68.4	1.9	131.1
12/23/2005 19:00	162.4	243.1	4	119.2	98.6	19.7	1.9	131.1
12/23/2005 20:00	70.5	197.2	4.6	119	208	8.9	1.8	131.3
12/23/2005 21:00	210.4	104.4	4.5	119.1	255.1	8.7	1.8	128.2
12/23/2005 22:00	201.5	83.5	4.5	118.9	160.7	4.6	1.8	100.7
12/23/2005 23:00	111.3	97.4	3.8	119	66.2	175.8	1.8	119.5
12/24/2005 0:00	209.4	118.8	3.5	118.7	104.1	33.8	1.6	125.6
12/24/2005 1:00	158.9	22.8	3.5	114.2	190.1	16.2	1.5	122.2
12/24/2005 2:00	94.4	78	2.6	102.7	550.9	43.4	1.5	124.1
12/24/2005 3:00	56.4	215.7	2.8	110.3	149.2	10.3	1.3	118.4
12/24/2005 4:00	61.4	172.4	3.1	116.1	130.5	60.8	1.4	116.3
12/24/2005 5:00	63	88.1	3.2	118.2	199.8	91.7	1.5	122.4
12/24/2005 6:00	62.2	74.4	1.9	118.4	129.1	34.1	1.5	122.8
12/24/2005 7:00	103.7	169.8	2.5	105.5	143	17.2	1.5	110.8
12/24/2005 8:00	102.5	109.7	3.8	114.7	77.4	174.2	1.6	118.3
12/24/2005 9:00	61.4	93.5	2.5	116.9	239.9	70.1	1.7	126.8
12/24/2005 10:00	60.7	183.3	2.8	117	566.7	16.3	1.5	115
12/24/2005 11:00	62.1	189.6	3.5	118.9	75.4	155.8	1.8	121.7
12/24/2005 12:00	65.2	139.6	3.7	119	195.7	27.5	2	119.3
12/24/2005 13:00	64	230	3.8	118.9	72.7	136	2	111.9
12/24/2005 14:00	79.5	278.9	4	118.3	80.5	124.2	2	124.8
12/24/2005 15:00	103.8	403.9	4.5	119.2	141.3	30.5	2	125
12/24/2005 16:00	205	270.1	5	119.3	104.2	28.3	2	126.3
12/24/2005 17:00	365.5	122.4	5	119.2	157.4	8.2	2	124.5
12/24/2005 18:00	163.7	269.4	5	118.8	235.2	21.6	2	115.8
12/24/2005 19:00	145.6	241.7	5	119	188.4	193.7	2	125.2
12/24/2005 20:00	70.2	175.3	5	119	229.6	47	2	124.3
12/24/2005 21:00	73.1	14.1	5	116.7	454.2	56.2	2	118.5
12/24/2005 22:00	59.7	37.6	5	114.6	676.1	151.8	2	123.5
12/24/2005 23:00	108.8	77.4	5	118.8	124	74.4	2	124.3
12/25/2005 0:00	68.2	21.2	4.7	119.2	160.9	71	1.9	124.7
12/25/2005 1:00	60	148.1	3.7	117	213.4	132.9	1.9	122
12/25/2005 2:00	59.2	139.5	4.1	116.9	378.4	202.8	1.9	127.4
12/25/2005 3:00	62	152.2	4.2	116.9	319	39.7	1.9	124.8
12/25/2005 4:00	63.3	123.4	4.2	117	117.8	69.9	1.9	122.3
12/25/2005 5:00	78	57.3	4.2	117	89.6	158.3	1.8	128.1
12/25/2005 6:00	75.3	55.1	4	117.1	214.5	14	1.9	124
12/25/2005 7:00	74.7	159.9	4.1	116.8	159.6	11.5	1.9	120.1
12/25/2005 8:00	287.4	113.8	4.5	116.7	430.8	102	0.5	118
12/25/2005 9:00	219.9	232.1	4.5	117.4	216.5	305.5	0	110
12/25/2005 10:00	293.6	241.6	4.5	119.3	74	406.9	0	116
12/25/2005 11:00	447.6	134.4	4.5	118	76.4	267.8	0.3	116
12/25/2005 12:00	731.1	26.1	4.5	113.1	473.4	130.6	1.8	116
12/25/2005 13:00	372.3	16.8	4.5	81.3	76.3	135.2	2	116.3
12/25/2005 14:00	493.7	249.3	4.5	90.3	114.1	361.3	2	120.1
12/25/2005 15:00	172.8	201.3	4.5	102.8	163.9	246.4	2	136.3
12/25/2005 16:00	447.3	249.3	4.8	108.9	285.2	31	2	131.3
12/25/2005 17:00	295.4	115.8	5	110	225.6	18.6	2	129.4
12/25/2005 18:00	54.7	189.3	5	110.7	529.7	17.7	2	126
12/25/2005 19:00	59.7	23.1	5	112.1	388.5	43.8	2	127.3
12/25/2005 20:00	62.8	27.1	5	110.6	1162.5	53.4	1.9	128.1
12/25/2005 21:00	50	98.4	5	109.8	256.6	24.7	1.8	128.1
12/25/2005 22:00	51.9	104.1	5	110	276.8	14.8	1.6	118.4
12/25/2005 23:00	53.1	73.4	5	110	247.4	89.4	1.6	118.6
12/26/2005 0:00	55.6	66.5	5	110	120.8	144.5	1.7	122.8

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
12/26/2005 1:00	54.5	140.7	5	110	110.9	103.3	1.7	122.8
12/26/2005 2:00	54.1	160.3	5	110.1	185.3	98.7	1.7	122.8
12/26/2005 3:00	52.9	194.5	5	110	147.4	54.7	1.7	122.7
12/26/2005 4:00	56.1	235.6	5	111.9	136.9	81.6	1.6	120.7
12/26/2005 5:00	56.8	375.9	3.8	114.7	101.2	198.4	1	121.9
12/26/2005 6:00	58.9	305.4	0.6	112.8	86.7	338.1	0	124.1
12/26/2005 7:00	52	303.4	2.5	109.4	191.7	194.2	0	115
12/26/2005 8:00	57.8	238.2	2.9	114.8	73.4	517.1	0.8	115.5
12/26/2005 9:00	56.7	123.9	3.5	114.8	81.4	415.5	1.8	132.4
12/26/2005 10:00	57.2	81.6	3.5	115.1	505.9	57.2	1.9	131.6
12/26/2005 11:00	55.1	78.9	3.5	115.1	110.6	28.6	1.9	131.2
12/26/2005 12:00	54.4	86.5	3.5	114.9	414.9	7	1.9	101.8
12/26/2005 13:00	54	63	3.5	115.1	66.7	165.4	1.9	90.2
12/26/2005 14:00	51.1	56	3.5	114.9	70	353.7	1.9	129.5
12/26/2005 15:00	50.7	52.7	3.5	115	100.1	24.7	1.9	131.3
12/26/2005 16:00	50.7	66.3	3.4	114.9	116.7	19.8	1.6	131.2
12/26/2005 17:00	52.7	115	3	115.1	409.9	66.7	0.9	131.2
12/26/2005 18:00	52.4	104.3	2.8	115	669.6	99.1	0.7	129.9
12/26/2005 19:00	53.3	164.5	2.7	114.9	220.9	98.4	0.7	116.6
12/26/2005 20:00	55.7	210.3	2.9	114.9	91.5	416.7	1.2	127.1
12/26/2005 21:00	54.1	117.1	3	114.9	154.8	122.8	1.6	126.4
12/26/2005 22:00	54.6	98.3	3	115.1	79.4	133.5	0.9	127.4
12/26/2005 23:00	55	73.4	2.9	115.1	91	119.5	0.9	131
12/27/2005 0:00	54.7	132.8	3.2	115	100.1	46.5	0.9	128.8
12/27/2005 1:00	54	97.9	3.4	115.5	84.4	99.7	0.8	127
12/27/2005 2:00	53.9	90.9	3.5	115	130.3	74.6	0.9	125.3
12/27/2005 3:00	54.7	112.1	3.5	114.9	91.3	137.8	1.1	124.8
12/27/2005 4:00	53.7	124.6	3.5	115.1	117.1	139.2	1.3	126
12/27/2005 5:00	53.5	65.3	3.6	115.1	107.6	101.8	1.3	126.8
12/27/2005 6:00	54.7	118.1	3.8	114.8	210	214.8	1.3	130.2
12/27/2005 7:00	51.5	161.8	3.8	106.9	156.8	140.2	1.3	128
12/27/2005 8:00	51.1	257.3	4.2	105	118.2	71.9	1.3	126.2
12/27/2005 9:00	51.2	391.6	4.2	105.1	87.2	157	1.3	126
12/27/2005 10:00	54	526.5	4.2	109.1	88.9	134.6	1.3	125.7
12/27/2005 11:00	56.8	518.9	4.2	112.8	77.2	191	1.8	125.9
12/27/2005 12:00	60.9	364.8	4.2	118.6	90.7	14	1.7	123.7
12/27/2005 13:00	57.3	78.9	3.1	116.1	90.1	23.9	1.3	115.7
12/27/2005 14:00	55	121	2	112.1	80.3	209.6	1	116.3
12/27/2005 15:00	56.4	248.1	2	112.4	75.2	173	1	118.6
12/27/2005 16:00	55.8	413.3	2.3	112.4	76.4	256.2	1	118.7
12/27/2005 17:00	64	161.4	4.6	118.3	77.3	177.7	1.2	118.7
12/27/2005 18:00	60.6	39.5	3.2	117.8	74	112.8	1.3	118.7
12/27/2005 19:00	190.1	182.7	3.3	117	77.3	107.2	1.3	118.7
12/27/2005 20:00	176	92.9	4	117.3	73.3	59.9	1.3	118.6
12/27/2005 21:00	61.7	86.7	4	117.5	73.5	52.4	1.3	118.6
12/27/2005 22:00	141.3	46.9	3.2	117.6	72.4	65.7	1.3	118.6
12/27/2005 23:00	99.3	177.7	0.5	97.4	71.7	95.7	1.3	118.7
12/28/2005 0:00	374.8	199.6	3.2	89.6	71.1	112.9	1.3	118.7
12/28/2005 1:00	48.4	198.9	4.8	95	71.7	57.5	1.3	117.6
12/28/2005 2:00	45	71.5	3.6	90.7	70.4	147.8	1.3	119.4
12/28/2005 3:00	44.8	321.4	3.3	94.9	78.1	161.3	1.3	125
12/28/2005 4:00	45.9	163.4	4.8	99.8	76.9	60	1	120.8
12/28/2005 5:00	48.2	146.6	3.9	100	74.9	52.7	1	119.7
12/28/2005 6:00	49.2	257.8	4.7	104	73.9	42.4	1	119.7
12/28/2005 7:00	55.7	359.1	4.4	117	71.2	61.8	0.8	117.7
12/28/2005 8:00	63.5	33.7	5	117.5	72.2	207.8	0.8	119.2
12/28/2005 9:00	64.7	8.5	4.7	119	83.6	213.6	0.8	129.5
12/28/2005 10:00	57.5	17.7	3.8	118.8	82.4	70.7	0.8	120.9
12/28/2005 11:00	53	37.3	3	118.8	104.7	190.7	0.8	126.1
12/28/2005 12:00	50.7	76.3	3	118.4	112.4	135.9	1.2	126.7
12/28/2005 13:00	57.2	111.4	3	119	103.6	111.1	1.2	112.7
12/28/2005 14:00	57.1	274.6	3	118.8	81.7	255.6	1.2	128.2
12/28/2005 15:00	58.9	370.4	3.6	119.2	89.6	135.1	1.2	136.6
12/28/2005 16:00	51.8	63.3	4.4	118.8	155.6	108.4	1.1	126.9
12/28/2005 17:00	52.6	115.9	2.6	118.6	82.2	190.5	1.2	137.5
12/28/2005 18:00	52.6	113.1	2.7	118.4	226.2	39.8	1	134
12/28/2005 19:00	51.8	63	2.6	117.1	192.5	59.2	0.8	133.3
12/28/2005 20:00	47.5	49.8	2.6	111.4	192.1	69.9	0.6	123.7
12/28/2005 21:00	49.8	131.9	2.5	113.7	113.7	176.8	0.5	126.6
12/28/2005 22:00	49.8	71.5	2.5	115.3	379.7	150.5	0.5	126.8
12/28/2005 23:00	49	63.2	2.2	112.4	75.4	83.1	0.5	128.8

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
12/29/2005 0:00	50.9	168.4	2	111.8	90.7	98.8	0.5	128.8
12/29/2005 1:00	55.8	254.8	2.4	115.8	77.7	350	1.4	129.5
12/29/2005 2:00	59	213.3	2.5	119.3	81.9	158.5	1.5	132.9
12/29/2005 3:00	59.7	149.2	2.5	119.4	151.3	60.8	1.2	133.8
12/29/2005 4:00	58.4	73	2.5	119.3	181.9	64.1	0.8	133.4
12/29/2005 5:00	57	65.2	2.4	119.1	111.8	30.3	0.7	128.7
12/29/2005 6:00	55.2	83.6	1.5	116.3	169.1	36	0.5	125.2
12/29/2005 7:00	55.4	110.8	1.5	116.3	74.4	95.8	0.5	124.9
12/29/2005 8:00	56.4	170.7	1.5	116.1	90	56.6	0.5	125.2
12/29/2005 9:00	155.5	105.4	1.5	116	85.4	88.2	0.5	125
12/29/2005 10:00	55.3	125.8	1.5	115.8	77.6	76.3	0.5	125
12/29/2005 11:00	57.2	171.9	2	116.1	83.2	58.7	0.5	124.3
12/29/2005 12:00	53.9	144.2	0.4	36	513.1	82.4	0.5	120.2
12/29/2005 13:00	12	1.1	0	0	108.7	235.4	0.5	122.7
12/29/2005 14:00	1.7	0.4	0	0	69.3	309.7	0.5	132.3
12/29/2005 15:00	1.6	0.9	0	0	83.9	93.9	0.5	127.2
12/29/2005 16:00	0.3	1.6	0	0	81.3	146.3	0.5	126.9
12/29/2005 17:00	0.3	1.4	0	0	116.2	84.8	0.5	125.9
12/29/2005 18:00	0.1	1.4	0	0	75.6	198.3	0.6	129.1
12/29/2005 19:00	0.3	1.2	0	0.1	331.8	146.4	0.7	130.6
12/29/2005 20:00	0.2	1.3	0	0.2	191.5	75.8	0.8	132.2
12/29/2005 21:00	1.2	1.2	0	0	240.7	25.9	0.7	130.2
12/29/2005 22:00	20.8	1.1	0	0	205.9	55.8	0.6	128
12/29/2005 23:00	276.4	2.6	0	0	250.9	98.5	0.7	124.1
12/30/2005 0:00	86.1	4.6	0	0	118.8	231	1.4	136.5
12/30/2005 1:00	27.4	7.5	0	0.5	579.1	31.3	1.4	133.7
12/30/2005 2:00	0	9.5	0	0.9	157.4	30.9	1	128.6
12/30/2005 3:00	0	12.2	0	1.4	125.8	134.3	1.2	132.4
12/30/2005 4:00	186.7	37.3	0.8	41.9	533.5	57.8	1.5	128.1
12/30/2005 5:00	153.5	80.6	1	62.8	362.9	70.2	1.5	138.2
12/30/2005 6:00	32.2	166	1.2	69.4	225.4	12.3	1.5	136.3
12/30/2005 7:00	52.7	312.5	2.6	96.5	313.6	12.7	1.5	136.4
12/30/2005 8:00	67.3	282.4	4	112.9	709.4	18.4	1.5	111.6
12/30/2005 9:00	69.4	208.9	4	118.4	162.5	72.7	1.8	118.9
12/30/2005 10:00	68.6	14.7	4	119	147.8	28.3	2	126.8
12/30/2005 11:00	65.7	18.3	3.1	119.1	187.8	11.3	1.7	131.5
12/30/2005 12:00	60.9	41.6	2.5	115.5	197.7	11.8	1.5	129.2
12/30/2005 13:00	50.4	223.5	3	104.8	201.2	23.5	1.1	126
12/30/2005 14:00	57.4	347.6	3.1	114.3	127.9	35.8	1	125.3
12/30/2005 15:00	58.5	234.4	3.4	115.1	161.5	47.9	1	120.7
12/30/2005 16:00	59.8	115	4	115.3	170.3	63.5	1	118.2
12/30/2005 17:00	58.8	34.6	3.9	115.2	118	146.2	1.2	115.7
12/30/2005 18:00	56.1	148.9	3.9	115.4	123.8	44.1	1.2	115.6
12/30/2005 19:00	56.8	173.3	4.1	115.3	77.1	97.6	1	115.5
12/30/2005 20:00	58.8	148.1	4.1	118.2	81.4	88.1	1	112.8
12/30/2005 21:00	55	43.8	3.7	112.5	75.6	111.6	1	118.2
12/30/2005 22:00	46.6	191.7	4.4	108.1	74.2	54	1	107.5
12/30/2005 23:00	51.8	106.1	4.1	114	67.2	110.8	1	115
12/31/2005 0:00	51.8	113.8	4	114.2	101.3	55	1	115.5
12/31/2005 1:00	54.4	173.4	4	114.1	121.5	120.8	1.1	115.7
12/31/2005 2:00	52.8	169	4.3	114.4	81.3	185.6	1.8	115.4
12/31/2005 3:00	54.4	203.2	4.8	114.3	100.2	17.9	1.9	115.6
12/31/2005 4:00	53.9	105.7	5	114.3	72.6	70.8	1.7	115.7
12/31/2005 5:00	53.2	100.9	5	114.2	70.2	125.4	1.8	115.6
12/31/2005 6:00	54.7	142	5	114.1	127	21.7	1.8	120.9
12/31/2005 7:00	56.5	96.1	5	114.2	80.4	19.1	1	120
12/31/2005 8:00	57	71	5	114.4	85	37.4	1	115.5
12/31/2005 9:00	55.2	106.6	5	114.3	67.9	118.9	1.5	115.5
12/31/2005 10:00	52.8	252.1	5	114.2	71.2	58.3	1.5	115.5
12/31/2005 11:00	55	187.9	5	114.2	76	76	1.5	115.8
12/31/2005 12:00	56.5	133.6	5	114.2	81.1	174	1.5	121.7
12/31/2005 13:00	56.7	149.8	5	114.2	305.9	58.9	1.4	121.5
12/31/2005 14:00	56	174.4	5	114.3	179.4	51.3	1.4	119.8
12/31/2005 15:00	59.6	135.3	5	114.1	123.3	44.9	1.1	117.8
12/31/2005 16:00	60	180.2	5	114.2	165.5	54.1	1.1	115.4
12/31/2005 17:00	61.6	206.2	5	116.4	88	91.7	1.1	120.4
12/31/2005 18:00	61.2	198.7	5	117.3	91.6	69.5	1.1	120.7
12/31/2005 19:00	61.1	160.9	5	117.3	82.3	43.6	1	120.6
12/31/2005 20:00	60	107.8	5	117.3	647.7	50	0.9	115
12/31/2005 21:00	63.3	80.1	4.5	117.3	107.9	103.9	1.2	114.9
12/31/2005 22:00	61.1	193.9	4.7	117.6	72.6	77	0.9	116.7

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (ppm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (ppm)	Kiln Feed rate (tph)
12/31/2005 23:00	64.4	242.5	5	118.9	73.8	366.9	0.9	122.9
1/1/2006 0:00	65.7	148.4	4.9	119.2	208.6	254.1	1.3	124.4
1/1/2006 1:00	67.5	26	3.7	119.4	79.6	160.3	1.8	127.1
1/1/2006 2:00	60.3	116.7	3	119.3	81.8	93.4	1.5	127
1/1/2006 3:00	60.6	102.2	3	119.3	98	61.5	1.5	127
1/1/2006 4:00	62.9	111.1	3	119.3	89.8	93.8	1.5	127.1
1/1/2006 5:00	71	51.3	2.6	119.3	86	28.4	1.2	121.8
1/1/2006 6:00	61.3	126.7	2	119.3	77.3	128.1	1.2	122.7
1/1/2006 7:00	59.5	103.8	2	119.5	121.3	45.5	1.3	122.9
1/1/2006 8:00	59.9	160.5	2	118.4	114.9	198.9	1.5	121.9
1/1/2006 9:00	58.7	174.3	2.1	119.1	116.7	191.1	1.8	125.4
1/1/2006 10:00	57.4	179.5	2.2	118.8	143.7	93	2	128
1/1/2006 11:00	62.7	174.5	2.2	117.6	219.1	13.4	2	126.2
1/1/2006 12:00	61.9	200.1	2.6	114.6	196.6	22	1.6	121.6
1/1/2006 13:00	62.3	84.9	2.6	114.5	126.1	145.9	1.2	120.7
1/1/2006 14:00	57	112.2	3.7	114.4	272.7	117	1.9	128.2
1/1/2006 15:00	60.2	32.2	4	114.5	378.9	18.9	2	134.3
1/1/2006 16:00	61.1	102.5	3.4	114.5	243.4	12.2	1.2	128.2
1/1/2006 17:00	62.1	70.1	3.7	114.5	178.2	28.1	0.5	123.3
1/1/2006 18:00	59.1	93.5	3.5	114.6	109.4	52.6	0.5	118.4
1/1/2006 19:00	57.8	107.1	3.5	114.4	92.1	74.5	1	122.9
1/1/2006 20:00	62.8	96.8	3.5	115.2	156.4	30.1	1	115.8
1/1/2006 21:00	62.7	77.5	2.8	118.4	386.4	108	1.3	118.8
1/1/2006 22:00	61	65.2	3	117.4	164.1	44.6	1.3	128.3
1/1/2006 23:00	59.2	74.2	3	115.6	135.6	72.4	1	124.6
1/2/2006 0:00	59.5	114.2	3	115.7	83.3	80.9	1	120.7
1/2/2006 1:00	57.8	116	3	116.4	81.5	104.6	1	120.8
1/2/2006 2:00	59.8	117.5	3	119.3	220.4	72.6	1	121.4
1/2/2006 3:00	59.4	65.6	3	119.3	137.3	153.8	1.3	129.1
1/2/2006 4:00	57.9	112.9	3	119.3	459.2	52.6	1.1	130.2
1/2/2006 5:00	58.9	66.4	3	119.4	165.9	60.7	1	124.4
1/2/2006 6:00	59.8	58.7	3	119.3	99.3	41.4	1	115.6
1/2/2006 7:00	63.1	69.4	3	119.2	72.3	44.4	1	115.5
1/2/2006 8:00	64.4	85	3	119.3	67.9	112.6	1.5	124.9
1/2/2006 9:00	61.1	68.5	3	119.4	89.2	102.1	2	131.6
1/2/2006 10:00	57.6	15.3	3	109.3	338.1	30.8	2	134.6
1/2/2006 11:00	720.4	14.5	3	82.2	175.4	33.6	2	136.5
1/2/2006 12:00	42.5	51.4	1.4	64.3	562.4	25.5	1.3	136.4
1/2/2006 13:00	48.3	114.3	1	80.9	514.3	23.9	1	128.5
1/2/2006 14:00	47.1	127.8	1.3	90	261.5	35.8	1	122
1/2/2006 15:00	50.7	142	1.3	98.8	87.4	78.1	1.2	120.4
1/2/2006 16:00	54.3	172.4	1.6	103.2	280	85.3	1.5	133.1
1/2/2006 17:00	60.7	93.2	2.6	113.3	423.1	33.4	0.7	128
1/2/2006 18:00	60.2	69.5	2.2	107.6	217.1	73.2	0.5	118.6
1/2/2006 19:00	101.1	71.6	2.8	112	108.8	128.1	0.7	124.7
1/2/2006 20:00	62.7	17.6	2.8	108.4	493.1	35.7	0.6	118.9
1/2/2006 21:00	56	91.9	3.3	106	537.1	65.9	0.8	112.2
1/2/2006 22:00	99.6	35.9	3.5	113	77.2	280.8	1.5	123.8
1/2/2006 23:00	56.3	48.4	3.4	103.5	123.4	84.4	1.5	132.9
1/3/2006 0:00	56.7	87.1	3.8	112.3	231.6	64.4	1	128.4
1/3/2006 1:00	69.1	12.1	3.4	118.6	303.3	97.2	1.2	134.6
1/3/2006 2:00	60.2	105.8	2.2	110.1	232.8	27.1	1	130.1
1/3/2006 3:00	60.3	79.7	2.5	115.4	223.1	32.6	1	130.4
1/3/2006 4:00	59.1	41.4	2.5	111.6	352	33.6	1	130
1/3/2006 5:00	58.6	47.1	2.4	112.5	214.5	23.8	1	123.1
1/3/2006 6:00	55.6	113.3	2.3	111.4	631.4	67.9	1	122.5
1/3/2006 7:00	62.5	76.4	2.3	112.2	127.2	30.7	1	120.9
1/3/2006 8:00	57.3	115.5	2.2	110.3	86.6	29.1	1	116.3
1/3/2006 9:00	55.3	68.5	2.2	108.6	93.6	36.1	1	113.1
1/3/2006 10:00	50.1	39.5	2.2	104.5	82.3	202.6	1.2	112
1/3/2006 11:00	51.4	215.2	2.7	105.9	111	139.5	1.8	126.1
1/3/2006 12:00	65.7	104.1	3	118.5	205.5	20.1	1.6	120.4
1/3/2006 13:00	63.7	17	2.8	118.8	112.4	139.5	1.8	125.2
1/3/2006 14:00	58.6	83.8	2	118.6	193.1	86	1.6	127.8
1/3/2006 15:00	63.6	83.2	2	115.8	631	44.5	1.8	131.4
1/3/2006 16:00	721.3	112.7	2	115.5	678.9	34.3	1.4	128.3
1/3/2006 17:00	222.6	63.2	2	111.5	222.5	32	0.7	125.7
1/3/2006 18:00	58.1	106.4	2	109.2	703.7	37.9	0.6	114.8
1/3/2006 19:00	106.3	105.1	3.6	114.7	119.9	223.6	2	122
1/3/2006 20:00	67.6	48.9	2.2	113.3	275.5	36.4	1.6	124.7
1/3/2006 21:00	57.7	68.9	2.2	105.1	246.3	96.9	1.5	126.7



Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
1/3/2006 22:00	50.7	110.1	2.3	98.2	543.1	27.5	1.4	119.9
1/3/2006 23:00	51.2	134.3	3.1	103.7	773.8	66.4	0.5	116.8
1/4/2006 0:00	566.2	90.7	3	114.8	151.9	83.5	0.5	118.1
1/4/2006 1:00	69.6	118.7	3	118.3	277.6	53.8	0.5	120.4
1/4/2006 2:00	55.6	152.3	3	112.6	217.8	55.6	0.5	115.7
1/4/2006 3:00	603.4	169.9	3	116.6	173.7	192.3	0.5	123.9
1/4/2006 4:00	60.1	47.1	2.7	112.2	473.6	57	0.5	124.9
1/4/2006 5:00	62.1	143.4	2.5	118.5	96.4	60.5	0.5	120.7
1/4/2006 6:00	119.8	48.4	2.5	119.3	88.5	45.4	0.5	117
1/4/2006 7:00	68.7	72	2.5	116.9	86	112.9	0.5	119.1
1/4/2006 8:00	112.8	128	1.4	112.7	93.5	70.6	0.3	121.1
1/4/2006 9:00	61.7	256	0	112.4	106.9	148.6	0	105.8
1/4/2006 10:00	58.6	268.2	0	112.4	51	226.1	0	101.9
1/4/2006 11:00	58.4	0	0	113.1	54.8	0	0	104.9
1/4/2006 12:00	67.2	296.5	0	115	50.8	220.3	0	96.4
1/4/2006 13:00	63.1	221.8	0	117.7	47	354.2	0	94.6
1/4/2006 14:00	63.6	201	0	117.4	50.4	268.2	0	91.6
1/4/2006 15:00	60	228.5	0	112.4	54.9	396.3	0	92.2
1/4/2006 16:00	59.4	217.5	0	112.4	68.4	789.1	0	115.9
1/4/2006 17:00	60.9	238.7	0	110.7	80.1	202.6	0	109.6
1/4/2006 18:00	54.3	265.7	0	107.4	69.4	388.2	0	111.7
1/4/2006 19:00	143.3	334.5	0.7	111.6	81.4	263.9	0.3	103.7
1/4/2006 20:00	56.6	87.1	2.7	105.1	60.9	242.3	1.7	105.1
1/4/2006 21:00	55.8	109.7	3.1	105	127.5	213.9	1.4	125.1
1/4/2006 22:00	48.9	140.6	2.3	95.1	183.4	85	0.5	117.5
1/4/2006 23:00	47.7	353	4.3	100.5	102	87.9	0.5	107.7
1/5/2006 0:00	55.2	151.9	3.3	105.5	70.4	262.5	0.9	106.1
1/5/2006 1:00	156	266.2	3.5	105	114.5	135.3	1.6	107.5
1/5/2006 2:00	152.6	210.3	3.7	104.9	150.7	161.6	1.6	109.2
1/5/2006 3:00	53.3	143.2	3.7	105.1	133.5	166.1	1.6	110
1/5/2006 4:00	52	175.8	3.7	106.6	186.3	148.8	1.6	111.4
1/5/2006 5:00	49.6	81.2	3.7	107	327.1	107.3	1.6	112.1
1/5/2006 6:00	49.5	84.7	3.1	107	72.4	185.7	1.7	108.7
1/5/2006 7:00	48.3	118.1	2.8	101.1	73.4	347.3	2	119.6
1/5/2006 8:00	50.2	220.7	3.4	101.1	89.1	124.8	2	124.7
1/5/2006 9:00	50	163.9	4.2	101.9	89.2	106.9	1.3	116.9
1/5/2006 10:00	53.2	158.4	4.7	102.1	170.2	132.7	2	119.3
1/5/2006 11:00	126.4	156.2	5.1	103.8	263.2	134.3	2	112
1/5/2006 12:00	520.1	37.5	5.1	95.8	295.6	288.6	2.1	118
1/5/2006 13:00	45.1	190.1	5.1	101.7	327.5	195.4	2.2	130.1
1/5/2006 14:00	54.1	235.5	5.1	108.3	313.7	15.2	2.1	125.9
1/5/2006 15:00	60.2	79.2	5	110.2	228.9	8.6	2	118.3
1/5/2006 16:00	449.7	74.8	4.8	110.3	81.9	69.3	1.9	115.5
1/5/2006 17:00	336.6	38.9	3.1	109.6	72.6	90.1	1.8	112.7
1/5/2006 18:00	51.6	185.6	4	107.9	116.2	68.3	1.7	110.2
1/5/2006 19:00	59.9	151.6	4.4	114.8	82.8	153.6	2.2	110.9
1/5/2006 20:00	66.7	162.1	3.5	117.3	95.7	106.4	1.5	115.2
1/5/2006 21:00	67.5	89.3	3	116.4	75	87.5	1.8	105.6
1/5/2006 22:00	152.1	71.5	2.9	108.8	74	192.9	2.1	113.1
1/5/2006 23:00	53.3	212.1	3.4	110.2	233.6	126.7	1.4	110.6
1/6/2006 0:00	62.2	226	3.7	111.3	90.9	209	1.9	112.2
1/6/2006 1:00	438.5	164.3	3.7	115.4	191.4	190.6	2	115.4
1/6/2006 2:00	138.8	112.9	3.7	115.9	158.1	147.8	2	118.2
1/6/2006 3:00	62.6	209.2	3.8	118.1	255.4	70.4	2	122.6
1/6/2006 4:00	93.7	83.2	3.5	118.6	397.4	49.1	1.6	121.9
1/6/2006 5:00	353.7	91	3	115.3	285.1	51.9	1	118
1/6/2006 6:00	63.9	151.5	3	118.6	245.4	32.1	1	115.6
1/6/2006 7:00	65.4	146.5	2.7	119.3	285.2	58.1	1	110.2
1/6/2006 8:00	61	165.6	2.6	119.3	269.4	135	1	110.3
1/6/2006 9:00	55.4	106.4	2.7	117.6	88.8	256.6	1	110.2
1/6/2006 10:00	53.9	159.7	3.6	115.3	90	236	1.9	112.2
1/6/2006 11:00	55.6	105.7	4	118.3	119.4	178	2	114.2
1/6/2006 12:00	58.5	41.2	4	115	170.5	136.5	2	112.5
1/6/2006 13:00	53.6	166.9	4.3	115.1	83.9	168.7	2	112.6
1/6/2006 14:00	63.4	70.8	4.6	115.2	84.7	127	2	115.4
1/6/2006 15:00	72.5	14.8	3.9	115	127.8	71.3	1.8	115.6
1/6/2006 16:00	54.3	117.7	2.5	108.8	115.8	96	1.2	115.5
1/6/2006 17:00	57	252.5	3.6	115.9	125.3	81.6	1.2	115.5
1/6/2006 18:00	60.3	74.9	3.3	116.4	132.4	58.8	1.2	115.5
1/6/2006 19:00	54.6	30.9	3.1	112.4	133.4	35.7	1.2	115.5
1/6/2006 20:00	54.1	65.5	3	112.4	110.9	52.9	1.2	115.5

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
1/6/2006 21:00	1102.2	55.7	3	107.2	73.3	23.1	1.2	110.8
1/6/2006 22:00	47.9	171.4	3.1	105.3	59.7	97.4	1.3	99.8
1/6/2006 23:00	55	110.3	3.1	105.9	70.4	120.7	1.8	119.9
1/7/2006 0:00	48	239.5	3.2	103.5	67.6	62.6	1.2	111.8
1/7/2006 1:00	56.2	257.8	3.3	108.9	65.1	224.1	1.2	115.9
1/7/2006 2:00	55.6	154.2	3.2	110.6	68.7	172.7	1.2	118.6
1/7/2006 3:00	58.7	144.2	3.3	112.4	109.1	145.1	1.3	120.9
1/7/2006 4:00	60.6	155.7	3.2	113.6	81.4	111.4	1.2	121.6
1/7/2006 5:00	54.1	100.5	3.3	108.1	74.5	79.6	1.3	109.2
1/7/2006 6:00	52.6	225.9	3.3	110.8	64.7	387.9	1.2	117.4
1/7/2006 7:00	51.5	141.9	3.3	106.5	78.7	196.8	1.2	119.7
1/7/2006 8:00	57	357.5	3.3	109.6	270.9	134.2	1.2	120.7
1/7/2006 9:00	59.4	249.4	3.3	110.5	140.9	103.1	1.2	116.6
1/7/2006 10:00	63.1	280.3	3.3	113.7	75.7	332.3	1.5	123.1
1/7/2006 11:00	163.5	128.7	3.3	101.6	124.3	89.7	2	128.5
1/7/2006 12:00	58.9	366.8	3.3	113.1	155.4	7.4	2	113.5
1/7/2006 13:00	57.6	111.6	3.2	110.4	305.9	200.8	2	130.6
1/7/2006 14:00	59.2	143.5	3.6	118	297.8	29.3	2	115
1/7/2006 15:00	61.9	31.7	3.7	116.9	82.6	26.1	2	117.8
1/7/2006 16:00	55.4	75	3.3	110	75.8	14.5	1.8	115.5
1/7/2006 17:00	55.5	126.7	3.3	111.7	74.1	63.5	1.8	115.3
1/7/2006 18:00	57.2	80.4	3.3	114.1	73	34.7	1.8	115.6
1/7/2006 19:00	53.2	63.5	3.3	105.6	72.4	28.4	1.8	115.5
1/7/2006 20:00	58.9	209	3.5	118.2	76.7	4.8	1.6	113.2
1/7/2006 21:00	64.8	71.3	3.7	119.5	70.1	118.1	1.2	115.4
1/7/2006 22:00	60.7	44.6	3.3	112.7	70.3	130.7	1.7	115.5
1/7/2006 23:00	62	198.4	3.6	117.6	73	103.4	1.8	115.5
1/8/2006 0:00	64.2	96.6	2.8	111.2	110	261.2	1.8	117.5
1/8/2006 1:00	64.5	124	2	110.8	165.2	208.4	1.8	125.9
1/8/2006 2:00	62.9	151.7	2	110.3	94.4	28.2	1.9	126
1/8/2006 3:00	63.2	203.2	2	111.9	99.1	26.5	1.5	125.9
1/8/2006 4:00	74	170.4	2	113.3	149.5	85.2	1	126
1/8/2006 5:00	67.8	116.6	2	110.8	197.4	91.5	1	124.6
1/8/2006 6:00	66.1	213.6	2.2	109.5	126.8	64.9	1	118.7
1/8/2006 7:00	76.8	411.8	3.1	117.6	91.4	98.7	1	121.8
1/8/2006 8:00	90.7	421.4	3.7	119.5	89.9	185.4	1	122.6
1/8/2006 9:00	74.8	310	4	119.1	80.9	150.3	1	124
1/8/2006 10:00	86.5	21	3.8	119.2	76.8	147	1	122.1
1/8/2006 11:00	74	54.1	2.4	118.7	72.1	195.4	1	120.7
1/8/2006 12:00	71.7	78.5	2	112.2	74.2	211.8	1	117.9
1/8/2006 13:00	1089.9	130.1	2	95.1	66.9	298.3	1.5	115.5
1/8/2006 14:00	51.8	536	3.3	97.5	71	334.8	2	115.5
1/8/2006 15:00	61.2	589.3	4.7	105.5	72.9	555.4	2.1	116.2
1/8/2006 16:00	66.9	428.2	5	108	84.8	408.9	2.1	135.7
1/8/2006 17:00	73.3	416.8	5	114.2	219.1	10.9	2.1	137.1
1/8/2006 18:00	75.5	363.3	5	118	86.5	23.3	2.1	117.5
1/8/2006 19:00	70.3	141.5	5	117.6	117.9	263.6	2	131.3
1/8/2006 20:00	101.6	7.7	4.8	113.4	109.2	56.1	1.9	135.9
1/8/2006 21:00	254	58.1	3.8	118	86.1	22.7	1.2	125.6
1/8/2006 22:00	89.7	27.1	3.7	117.3	83.7	43.8	1	121
1/8/2006 23:00	69.9	11.4	3.7	112.4	76.2	87.8	1	114.8
1/9/2006 0:00	63.5	54.5	2.3	109.6	67.3	199.9	1.4	110.4
1/9/2006 1:00	56.4	204.6	2.5	105.6	70.5	399.8	2	113
1/9/2006 2:00	63.1	250.6	3.1	110.4	87.1	229.1	2	124.7
1/9/2006 3:00	72.4	97.5	2.9	114.4	98.9	65.4	1.4	126.9
1/9/2006 4:00	66.4	130.9	1.8	110.7	98.5	104.2	1	126
1/9/2006 5:00	68.6	260.5	1.8	110.3	99.7	149.6	1	126.2
1/9/2006 6:00	131.9	195.2	1.9	113.9	302.1	131.3	1	123.3
1/9/2006 7:00	646.5	74.5	2	115.6	182	282.9	1.2	124
1/9/2006 8:00	112.3	180	2.3	118.3	292.3	141.6	1.5	126
1/9/2006 9:00	67.3	57.6	2.5	119.6	106.1	115.1	2.3	126
1/9/2006 10:00	73.2	22.3	2.5	113.8	81.2	28.8	2.5	126
1/9/2006 11:00	62.4	97.1	2.6	101.3	134	8.6	2.5	126
1/9/2006 12:00	99.7	58.7	2.8	110	204	7.9	2	120.6
1/9/2006 13:00	154.9	79.3	2.5	107.4	66.7	205.8	2	110
1/9/2006 14:00	116.4	166	3.2	108.2	164.8	168.8	3.3	112
No data Kiln down				No data Kiln down				
1/12/2006 15:00	24.5	122.6	0	30.7				
1/12/2006 16:00	257.5	131.1	1.8	49.1				
1/12/2006 17:00	199.7	90.2	1.5	68.7				

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
1/12/2006 18:00	305.3	84.4	1.5	73.3				
1/12/2006 19:00	326.5	147.9	1.5	83				
1/12/2006 20:00	182.2	142.7	1.5	86.3				
1/12/2006 21:00	49.8	250	1.5	91.3				
1/12/2006 22:00	63.7	320.3	1.5	107.6				
1/12/2006 23:00	203	137.3	1.5	117.3				
1/13/2006 0:00	162.6	95.7	1.5	111.5				
1/13/2006 1:00	156.8	151.2	2.2	109.3				
1/13/2006 2:00	206.6	135.6	3	109.3				
1/13/2006 3:00	232.8	114.7	3	109.9				
1/13/2006 4:00	173.9	122.5	3	110.2				
1/13/2006 5:00	109.3	152.2	3	110.3				
1/13/2006 6:00	65.3	196	3.1	113				
1/13/2006 7:00	65.4	259.2	1.9	113.8				
1/13/2006 8:00	69.7	498.3	3.6	113.9				
1/13/2006 9:00	68.8	468.4	5.2	114				
1/13/2006 10:00	71.2	477.2	2.1	114.6				
1/13/2006 11:00	70	668.4	1.3	119.3				
1/13/2006 12:00	158.8	330.8	3.6	123.8				
1/13/2006 13:00	152	352.5	4.2	124.5				
1/13/2006 14:00	156.1	412.6	4.1	124.3				
1/13/2006 15:00	180.5	402.7	4.2	125.7				
1/13/2006 16:00	214.4	328.4	4.5	128.5				
1/13/2006 17:00	152.5	284	4.7	136.4				
1/13/2006 18:00	265.2	142.5	4.8	137.7				
1/13/2006 19:00	415.9	76.5	4.6	140.5				
1/13/2006 20:00	352.2	39	3.8	136.3				
1/13/2006 21:00	260.6	67.2	3.5	134				
1/13/2006 22:00	238.1	51.1	3.5	133.7				
1/13/2006 23:00	290.1	53.9	3.5	131.2				
1/14/2006 0:00	217.2	68.6	3.5	131.2				
1/14/2006 1:00	149.3	115.2	3.6	131.1				
1/14/2006 2:00	147.3	106.6	3.6	126.2				
1/14/2006 3:00	199	44.1	3.5	123.5				
1/14/2006 4:00	64.8	82.9	3.5	124.9				
1/14/2006 5:00	113.2	192	3.5	126.7				
1/14/2006 6:00	266.5	185.2	3.9	128.3				
1/14/2006 7:00	259.9	160.4	4.3	130.6				
1/14/2006 8:00	239.6	92.4	4.3	131.4				
1/14/2006 9:00	245.4	65.8	4.1	132.5				
1/14/2006 10:00	77.6	40.9	3	133				
1/14/2006 11:00	210.6	32.2	2	99.7				
1/14/2006 12:00	43.3	204	3.3	99.8				
1/14/2006 13:00	56.6	246.9	5	122.1				
1/14/2006 14:00	166.7	167.9	5	130.8	21.1	45.9	1.2	34.8
1/14/2006 15:00	268	164.2	5	133.7	441.1	84.4	1.9	58.3
1/14/2006 16:00	257.9	84	4	132.3	46.1	102.8	2	84
1/14/2006 17:00	112.3	80.8	3.1	130.2	477.9	250.6	2.1	104.9
1/14/2006 18:00	199.7	204.4	3.2	130.4	71.7	344.9	2.4	117
1/14/2006 19:00	173.8	209.5	3.8	131.9	83.7	306.7	2.5	125.6
1/14/2006 20:00	267	126.1	3.8	132.1	125.4	270.4	2.5	132.8
1/14/2006 21:00	64.5	107	3.8	132	210.6	185.3	2.5	140.5
1/14/2006 22:00	115.2	146.7	3.8	132.1	333.5	51.7	2.2	143
1/14/2006 23:00	64.6	121.1	3.8	132	223.1	17.2	2	143
1/15/2006 0:00	66.4	97.3	3.8	128.8	198.8	8.4	2	137.7
1/15/2006 1:00	277.4	118.9	3.8	120	463.3	47.9	2	121.1
1/15/2006 2:00	163.5	51.7	2.9	126.9	78	45	1.9	126
1/15/2006 3:00	61.6	72.5	2.7	128.3	71.4	50.3	1.7	115.5
1/15/2006 4:00	56.3	124.4	2.8	129.6	75	254.4	2.3	121.2
1/15/2006 5:00	59	111.6	2.8	130	81.9	284.9	2.5	124.1
1/15/2006 6:00	62.7	49.3	2.9	130.2	75.2	359.8	2.6	124.2
1/15/2006 7:00	180.5	90.6	2.9	128.7	72.4	270.5	2.6	123.8
1/15/2006 8:00	163.2	161.4	2.9	120.9	561.3	231.3	2.8	125.5
1/15/2006 9:00	53.2	203.4	3.3	129	84.3	43.4	2.7	132.7
1/15/2006 10:00	64.2	76	3.4	132.3	88.8	4.6	2.8	132.3
1/15/2006 11:00	65.5	16	3.4	129.8	177.7	5	2.3	119.7
1/15/2006 12:00	64.7	21.5	2.9	123.2	68.5	180.4	2.6	122.3
1/15/2006 13:00	58.5	94.2	2.8	121.5	78.7	65	2.3	127.1
1/15/2006 14:00	60.2	153.4	3.5	123.3	92.4	14.3	1.8	124.5
1/15/2006 15:00	63.2	132.1	3.7	123.5	73.6	27.6	1.7	120
1/15/2006 16:00	97.6	114.3	3.8	123.7	80.1	80.7	1.7	119.8

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
1/15/2006 17:00	65.8	164.8	3.7	125.6	82	118.7	1.7	119.8
1/15/2006 18:00	107	234.1	3.8	128.4	83.4	154.4	2.2	123.9
1/15/2006 19:00	291.1	292.2	4.1	126.5	68.4	136.1	1.8	124
1/15/2006 20:00	367.4	105	4.5	117.7	288	77.5	1.8	118.2
1/15/2006 21:00	511.6	48.5	4.1	113.2	79.7	272.8	2.9	116.4
1/15/2006 22:00	52.2	17.7	2.9	106.2	116.6	215.3	2.9	106.5
1/15/2006 23:00	43.7	37.3	2.5	101.3	61	377.8	2.7	104.5
1/16/2006 0:00	93.5	100.9	2.5	100.6	59.2	189.3	2.6	103.2
1/16/2006 1:00	213.8	124.7	2.6	100.6	57.7	59.4	1.8	100.7
1/16/2006 2:00	43.6	63.4	2.6	100.7	56.1	160.1	1.6	100
1/16/2006 3:00	41.5	83.5	2.6	95.7	52	217.1	2.1	95
1/16/2006 4:00	38.9	151.5	2.7	95	50.5	401.9	2.5	98.4
1/16/2006 5:00	38.6	173.8	2.9	95.8	52.3	428.1	2.5	99.7
1/16/2006 6:00	184.6	214.6	3.3	97.3	53.3	488	2.5	99.7
1/16/2006 7:00	170.2	279.6	3.6	98.3	62.6	369.7	2.5	100.2
1/16/2006 8:00	89	189.2	4	102.8	69.4	258.7	2.6	105
1/16/2006 9:00	52.7	219.6	4	100.7	45.8	334.6	2.6	100.3
1/16/2006 10:00	43.2	65.7	4	100.7	52	61.4	2.3	99.9
1/16/2006 11:00	49	3.9	4	100.8	54.3	414.1	2.5	99.8
1/16/2006 12:00	50.9	3.7	4.5	100.6	55.6	521.4	2.7	99.7
1/16/2006 13:00	53.1	3.8	4.8	100.7	56.5	536.6	2.7	99.8
1/16/2006 14:00	48.9	3.4	4.8	100.8	56.3	491.5	2.7	99.8
1/16/2006 15:00	39.5	14.6	2.6	100.8	55.6	368.7	3.2	99.6
1/16/2006 16:00	37.7	151.8	2.3	100.7	55.6	123.4	3.5	99.6
1/16/2006 17:00	39.2	226.5	2.1	99.2	54.9	141	3.4	99.9
1/16/2006 18:00	36.7	248.3	2.3	90	53.7	824.2	3.5	99.6
1/16/2006 19:00	40	374	4.2	105.8	55.7	626.8	3.3	99.7
1/16/2006 20:00	47.4	365.4	5	115	54.3	321.4	3.5	99.5
1/16/2006 21:00	118.5	377	5	116.2	55	309.7	3.5	100.5
1/16/2006 22:00	56.4	289.8	5	120.2	58.2	229.5	3.5	106.7
1/16/2006 23:00	60.7	332.1	5	124.9	74.2	160.2	3.4	115.1
1/17/2006 0:00	62.2	213	5	125.4	115.4	124.7	3.4	119.6
1/17/2006 1:00	59.7	102.2	4.8	128.2	82.3	90.8	3.2	120.5
1/17/2006 2:00	59.6	55.6	3.4	126.3	77.1	104.1	3	120.7
1/17/2006 3:00	60.6	52.8	3	127.6	75.1	73.7	3	120.7
1/17/2006 4:00	62.2	44.7	3	128.1	76.5	32.1	3	120.7
1/17/2006 5:00	61.6	60.6	2.5	129.3	75.4	40.1	2.4	120.8
1/17/2006 6:00	58.7	60.1	2	129.9	63.6	18.4	2	120.6
1/17/2006 7:00	62.3	116.2	2	129.9	144.5	78.2	1.5	120.6
1/17/2006 8:00	66.1	108.1	2	130	237.1	187.8	2.8	120.7
1/17/2006 9:00	56.6	76	2	126.2	117.8	87.4	3	121.9
1/17/2006 10:00	52.2	156	2.7	125	196	19.7	2.2	126.3
1/17/2006 11:00	54.8	124.2	4	127.3	1113.2	32.2	1.8	126.6
1/17/2006 12:00	55.1	88.8	4	128.5	85.9	22.4	1.8	97.8
1/17/2006 13:00	55.9	71.4	3.8	128	50.1	293.6	1.9	113.8
1/17/2006 14:00	56.9	122	3.5	128.2	67.1	134.6	1.6	126.1
1/17/2006 15:00	54.4	97.9	3.5	128	59.1	32	1	119.1
1/17/2006 16:00	55.7	232.4	4.1	132.2	61.2	195.5	2.3	124.3
1/17/2006 17:00	66.2	231.9	5	135	727.9	32.1	2	124
1/17/2006 18:00	147	265.3	5	138.4	635.2	80.1	2	109.3
1/17/2006 19:00	127.6	385.1	5	139.7	127.5	210.6	2.9	113.8
1/17/2006 20:00	191	231.6	5	139.9	96.3	84.5	3	124.4
1/17/2006 21:00	124.1	157.3	5	140.3	147.7	13.2	3	121
1/17/2006 22:00	114.7	23.3	5	140	67.7	186.4	3	123.7
1/17/2006 23:00	71.3	119.7	4.2	140	65.5	193.5	3	125.4
1/18/2006 0:00	61.4	206.1	4.5	140.2	68.4	155.8	3.2	125.4
1/18/2006 1:00	59.4	228.6	4.8	142	69	153	3.2	127.1
1/18/2006 2:00	61	174.9	4.9	142	70.1	124.1	3.2	128.3
1/18/2006 3:00	65.8	175	4.9	142	77.4	122.2	3.2	129.2
1/18/2006 4:00	61.5	229.5	4.9	142.3	75.8	140.7	3.2	129.3
1/18/2006 5:00	106.5	233.5	4.9	142.9	119.7	99	2.3	130.2
1/18/2006 6:00	61.8	201.2	5	143.5	71.4	118.8	1.5	131.1
1/18/2006 7:00	62.5	181.9	5	144	70.3	110.9	2.2	131.9
1/18/2006 8:00	61.3	191.7	5	144	70.7	53.7	2.3	132.2
1/18/2006 9:00	60.7	179.1	5	144	78.8	42	2.2	132
1/18/2006 10:00	59.2	192	5	144.1	86.2	65.7	2.3	132.1
1/18/2006 11:00	59.1	175.9	5	144	116.9	62.9	2.1	131.9
1/18/2006 12:00	60.3	124.9	5	143.9	87.6	68	2	132.1
1/18/2006 13:00	65.5	109.6	5	144	124.2	138.8	1.9	132.6
1/18/2006 14:00	70.9	125.6	5	144.1	105	121.2	2	135.3
1/18/2006 15:00	124.9	168	5	143.9	87	30.8	2	138.1

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
1/18/2006 16:00	64.6	155.5	5	144	114.2	9.1	2	133.3
1/18/2006 17:00	66.5	137.1	5	144.1	161.6	23.4	2	135.1
1/18/2006 18:00	102	180.1	5	144	217.3	20.6	2	135.8
1/18/2006 19:00	142.8	245.8	5	144	111.8	48.9	2	136.8
1/18/2006 20:00	160	234.1	5	143.9	195.5	12.1	1.9	137.7
1/18/2006 21:00	110.7	230.6	5	144.1	754.6	20.1	1.9	136.3
1/18/2006 22:00	147.6	215.7	4.9	143.9	987.3	20.6	1.9	129.9
1/18/2006 23:00	121.9	161.4	5	140.9	67.1	25.1	1.9	123.7
1/19/2006 0:00	61.6	135.1	5	140.2	61	140.5	2.1	123.3
1/19/2006 1:00	63.5	172.2	5	141.2	62	140.9	2.3	123.5
1/19/2006 2:00	64.7	135.5	5	141.9	61.5	219	2.5	123.7
1/19/2006 3:00	139.9	77.8	4.8	140.4	63.2	216.5	2.7	125.5
1/19/2006 4:00	56.4	113.3	4.5	140.1	69	264	3.2	128.2
1/19/2006 5:00	55.7	125.8	4.2	140	65.5	272.9	3.4	130.8
1/19/2006 6:00	58.2	105.2	3.8	139.9	63.2	182.9	3.1	132.7
1/19/2006 7:00	97	153.3	3.1	140.1	63.9	257.3	3.3	133.6
1/19/2006 8:00	56.8	196.5	3.6	140	66.6	393.5	3.4	136.8
1/19/2006 9:00	58.6	154.1	4.5	140	70.6	404.6	3.4	137.4
1/19/2006 10:00	56	132.8	4.7	139.9	70.4	393.4	3.4	137.8
1/19/2006 11:00	58.9	124.3	4.8	139.9	73.5	267	3.4	138.7
1/19/2006 12:00	56.9	86.4	4.8	140.1	144.3	260	3.4	139.4
1/19/2006 13:00	58.5	63.9	4.7	140.1	71.3	72.3	3.4	139.7
1/19/2006 14:00	59	78.1	4.7	140	69.9	18.5	2.7	139.6
1/19/2006 15:00	59.6	113.7	4.7	140	68.7	108.8	1.8	139.8
1/19/2006 16:00	60.7	106.4	4.8	140	257.1	124.9	2	139.5
1/19/2006 17:00	223.2	182.2	4.8	139.9	117.2	197	3.1	139.7
1/19/2006 18:00	109.3	235.1	5	140.1	71.4	117.8	3.5	139.7
1/19/2006 19:00	97.3	208.1	5	140	115.4	43.4	2.2	139.7
1/19/2006 20:00	246.3	125.3	5	139.9	71	169.1	1.5	139.5
1/19/2006 21:00	54.1	75	5	140.1	246.6	53.1	1	136.5
1/19/2006 22:00	146.8	85.1	5	139.8	62.4	115.2	0.7	120.6
1/19/2006 23:00	146.1	111.1	5	140.1	181.8	148.1	3.1	132.3
1/20/2006 0:00	114.1	237.7	5	141.5	106.8	68.9	0.5	133
1/20/2006 1:00	102.8	210.5	5	144.4	109.4	108.1	0.5	132.9
1/20/2006 2:00	112.3	143.4	4.7	143.6	66.7	108.5	1	130.3
1/20/2006 3:00	60.4	150.9	4.6	140.1	153	140.4	1.3	124
1/20/2006 4:00	71	211.8	5	140.5	364.8	237.6	3.3	130.3
1/20/2006 5:00	146.7	211.5	4.9	142.5	476.9	102.8	2.9	125.8
1/20/2006 6:00	142.5	143.4	3.8	139.7	75.5	184.9	3.4	129.1
1/20/2006 7:00	97.4	101.7	4.2	139.7	74.9	265.5	3.4	131.3
1/20/2006 8:00	61.4	57.3	4.2	138.5	76.5	277.3	3.4	133
1/20/2006 9:00	108.3	29.8	4.3	141.3	76	327.2	3.4	133
1/20/2006 10:00	159.9	37	4.3	140.6	76.1	311.2	3.4	133
1/20/2006 11:00	209.9	62	4.3	140.4	141.3	156.3	3.5	133
1/20/2006 12:00	173.5	62.3	4.3	140.3	296.9	118.8	3.5	135.9
1/20/2006 13:00	114.8	54.5	4.3	138.1	384.2	135	3.5	139.8
1/20/2006 14:00	73.5	28.3	4.3	138.6	405.5	25.9	3.5	140.1
1/20/2006 15:00	120.6	30.2	4.2	139.9	225.3	7	3.5	140.3
1/20/2006 16:00	76.5	44.6	4	140.8	127.4	9.2	2.8	140.1
1/20/2006 17:00	78.4	172.7	3.9	141.4	129	66.3	1.1	140.1
1/20/2006 18:00	67.7	120.6	4.1	140.6	94	56.2	1	138.9
1/20/2006 19:00	150	78.8	4.1	140	78.2	38.1	1	130.4
1/20/2006 20:00	239.6	76.6	4	140.6	247.1	157.7	1.6	130.7
1/20/2006 21:00	278.2	62.8	3.8	140.1	432.5	195.3	3	134.5
1/20/2006 22:00	229.5	91.8	3.8	140	356.8	264.1	3.3	136.2
1/20/2006 23:00	227.3	67.7	3.6	140	257.9	245.7	3.5	138
1/21/2006 0:00	207.1	77.5	2.2	138.9	246.8	183.2	3.5	138.2
1/21/2006 1:00	73.5	102.6	2.3	133.4	714.8	69.2	3.1	138.3
1/21/2006 2:00	64.1	151.8	2.5	131.7	89.7	96	1.3	135.3
1/21/2006 3:00	155.5	130.1	4.2	130.1	78.2	153.7	2	130.1
1/21/2006 4:00	66.8	169.8	4.8	130.3	86.7	162.9	3.3	131.5
1/21/2006 5:00	150.8	223	5	134.3	101.8	140.5	3.3	131.6
1/21/2006 6:00	125.9	235.6	5	137.9	197.8	165.2	3	132.5
1/21/2006 7:00	197.2	239	5.1	138.3	124.7	92.9	2.7	133.4
1/21/2006 8:00	107.2	267.3	5	143.5	101.2	86.1	2.5	132.3
1/21/2006 9:00	79.2	225.6	5.1	144	152.9	79.3	1.9	130.3
1/21/2006 10:00	116.2	176.8	5.1	142.4	312.6	84.7	1	128.6
1/21/2006 11:00	76.7	188.6	5.1	142	328.6	103.5	1.8	129.1
1/21/2006 12:00	133.8	282.6	5.1	142.8	414.5	92.1	2.3	129.6
1/21/2006 13:00	222.3	315.4	5.1	144	112.9	17.4	2.2	127.8
1/21/2006 14:00	81.7	174.1	5.1	144	74.2	9.1	1.5	120

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
1/21/2006 15:00	127.3	29.1	5.1	144	103.5	31	1.5	118.7
1/21/2006 16:00	197.9	93.5	5.1	144	73.3	78	1.5	120.1
1/21/2006 17:00	245.3	133.9	5.1	144	131.6	125.5	1.5	120.8
1/21/2006 18:00	242	180.2	5.1	144.4	63.8	190	2.6	123.2
1/21/2006 19:00	147.6	178.8	5.1	144.9	63.3	145.3	3	126.3
1/21/2006 20:00	261.7	160.7	5.1	145	69.6	79.2	3	126.7
1/21/2006 21:00	198.5	73.9	5.1	145	474	55	3	126.9
1/21/2006 22:00	125.8	74.2	5.1	145	257.5	144.2	3.5	128.5
1/21/2006 23:00	181.8	78.3	5.1	145.1	251	87.1	3.5	129.7
1/22/2006 0:00	167.1	78.8	5.1	144.9	232.6	165.9	3.5	131.3
1/22/2006 1:00	180.5	55.5	3.6	143.3	801.4	107.6	3.2	132.4
1/22/2006 2:00	178.3	121.1	3.1	140.1	151.4	55.7	1.8	131.8
1/22/2006 3:00	159.4	125.3	3.6	140.5	72.7	33.2	1.4	124.1
1/22/2006 4:00	146.6	90	3.6	141.8	62.8	182.9	2.9	124.9
1/22/2006 5:00	224	84.7	2.2	141.9	70.4	187.3	2.9	128.9
1/22/2006 6:00	268.7	71.2	1.9	137.5	112.3	108.2	3	124.7
1/22/2006 7:00	193.9	104.1	2	134.9	84	184.6	3.2	125.4
1/22/2006 8:00	66.4	164.1	2	138	71.9	295.1	3.5	129.7
1/22/2006 9:00	148.5	75.1	2	138.1	71.4	228.7	3.5	129.6
1/22/2006 10:00	227.3	100.1	2	137.9	70.3	145.4	3.5	129.7
1/22/2006 11:00	261.3	127.7	2	137.9	75.7	76.3	3.5	129.6
1/22/2006 12:00	202.5	144	2	138.9	75.2	37.9	3.4	129.5
1/22/2006 13:00	251.1	164.6	2	140.4	74.3	59.3	2.2	129.6
1/22/2006 14:00	259.9	117.8	1.9	140.5	70.9	128.5	2	129.7
1/22/2006 15:00	158	96.5	1.4	140.4	69.4	166.5	2	129.6
1/22/2006 16:00	71.1	127.4	1	140.5	70.7	274.8	2	129.7
1/22/2006 17:00	110	121.2	1	140.5	70.6	396.2	2	129.5
1/22/2006 18:00	215.3	179.4	1	140.4	71	405.1	2	129.7
1/22/2006 19:00	351	236	1	140.5	526.3	296.1	2	124.8
1/22/2006 20:00	267.4	162.5	3.7	140.6	116.2	73.3	2	110.6
1/22/2006 21:00	252.4	67.1	4	140.4	241.4	99.2	2	110.4
1/22/2006 22:00	261.9	43	3.6	140.6	496.2	123.3	2	110.5
1/22/2006 23:00	232.9	64.2	3	140.6	120.3	125.1	2	110.3
1/23/2006 0:00	115.2	54.2	3	140.4	54	134.5	2.1	110.5
1/23/2006 1:00	179.4	63.4	1.6	132.5	53	31.2	1.8	110.4
1/23/2006 2:00	61.1	154.7	1.8	123.4	49.1	85.3	0.3	107.9
1/23/2006 3:00	167.8	191.4	3.8	134.8	46.9	128.9	0.8	105.6
1/23/2006 4:00	75.6	140.1	2.3	135.4	48.1	129	1.5	105.6
1/23/2006 5:00	112.9	181.3	2.6	139.9	48.3	181.4	2	105.7
1/23/2006 6:00	81.5	152.2	2.7	140	93.8	173.6	2.2	107.6
1/23/2006 7:00	113.6	146.2	2.6	140	58.1	159.5	2.5	110.5
1/23/2006 8:00	184.9	158.5	3.1	139.9	231.4	55.8	2.5	110.3
1/23/2006 9:00	230	192.8	4	139.9	64.2	9.6	2.3	110.4
1/23/2006 10:00	293.4	157.6	4.7	140	61.3	29.3	1.5	110.5
1/23/2006 11:00	196.9	91	5	140.1	51.3	102.6	1.4	110.8
1/23/2006 12:00	217.1	64.8	5	140	54.9	94.6	2.2	115.2
1/23/2006 13:00	215.2	71.9	5	139.9	277.8	181	2.5	117.9
1/23/2006 14:00	245.6	91.9	5	140	117.4	154.8	2.5	118.1
1/23/2006 15:00	248.7	49.7	5	140	65.8	74.3	2.5	118.2
1/23/2006 16:00	272.5	38.4	5	139.9	69.9	3.3	2.5	114.7
1/23/2006 17:00	270.9	28.4	4.9	140	67	5	2.4	111.6
1/23/2006 18:00	305.5	66	3	140.1	60.7	142.8	2.7	116.4
1/23/2006 19:00	386.3	104.4	3	143	494.9	147.4	3	120.6
1/23/2006 20:00	287.9	92.9	3	144.9	400.9	245.1	3	123.6
1/23/2006 21:00	381.5	65.9	3	145	236.8	256.6	3.3	119.5
1/23/2006 22:00	287.7	56.6	3	144.9	209	237.8	3.3	123.8
1/23/2006 23:00	334.1	55.1	2.7	145.1	318.3	255.9	3.5	126.8
1/24/2006 0:00	300	49.1	2.6	145.2	706.1	72.6	2.4	126.6
1/24/2006 1:00	207	84.4	1.1	143.5	74	162.7	2.2	126.9
1/24/2006 2:00	195.8	110.9	1.1	140	191.8	143.4	2.2	128.6
1/24/2006 3:00	287.2	98.6	1	137.8	144.9	82.9	2.2	129.4
1/24/2006 4:00	162.4	104.8	1.1	129.1	84.8	131	2	130.8
1/24/2006 5:00	112.2	114.1	2.4	139.5	76.9	133.3	2.1	130.8
1/24/2006 6:00	202.8	72.7	1.7	136.1	80	134.4	2.5	132.1
1/24/2006 7:00	230	156.5	1.4	131.3	183.7	108.5	1.5	127.6
1/24/2006 8:00	275.3	211.7	1.8	134.7	110.2	148.5	1.6	127
1/24/2006 9:00	336.1	77.6	3	134.6	194.1	94.3	2.5	130.3
1/24/2006 10:00	313.9	46.8	2.8	135.3	239.8	84.3	2.5	133.4
1/24/2006 11:00	270	34.6	2.7	135.2	908.9	21.6	2.5	134.4
1/24/2006 12:00	151.9	23.1	2.2	135.1	118.8	4.7	1.9	118.4
1/24/2006 13:00	207.6	50.6	1.7	134.4	69	68.2	1.7	116.8

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
1/24/2006 14:00	225.3	98.5	1.7	135.3	66.4	168	2.5	121.9
1/24/2006 15:00	74.2	55.6	1.7	125.2	122.2	37.5	2.5	122.9
1/24/2006 16:00	58.9	164.1	1.8	124.9	168.2	36.6	2.5	118.9
1/24/2006 17:00	605.3	186.2	2.1	125.3	637.9	63	2.5	108
1/24/2006 18:00	56	189.9	2.8	127.7	55.2	132.6	2.8	118.1
1/24/2006 19:00	150.4	138.7	3	131.6	64.2	31.5	3	120.1
1/24/2006 20:00	105	225.6	3	136	67.2	8.1	3	120.7
1/24/2006 21:00	140.7	235.3	3	139.3	72.7	19.8	2.9	124.6
1/24/2006 22:00	227.5	145.6	3	139.9	63.8	75.4	1.5	121.3
1/24/2006 23:00	259.5	103	3	140.1	533	105	1.5	111.3
1/25/2006 0:00	152.4	123.4	3	139.4	197.3	82.7	1.5	105.5
1/25/2006 1:00	78.4	121.6	3	140.5	151.7	145.8	1.5	116.3
1/25/2006 2:00	75.3	136.8	3	139	58.5	106.9	1.4	116.2
1/25/2006 3:00	69.9	158.4	3	137.8	51.7	63.2	1	115.2
1/25/2006 4:00	69.1	194.7	3.1	135.8	51.5	56.6	1.4	115.8
1/25/2006 5:00	113.4	185.3	3.7	135.1	98	134.8	2.8	122.7
1/25/2006 6:00	61.6	150.4	4	135	68.5	160.1	3.4	124.9
1/25/2006 7:00	62.5	220	4.8	135.4	600.4	228.8	3.3	124.8
1/25/2006 8:00	63.2	331	5	139	58.4	115.7	3.4	124.8
1/25/2006 9:00	64.5	288.6	5	139.9	57.1	137.9	3.5	126.2
1/25/2006 10:00	70.6	168.5	5	140.1	61.6	195.1	3.5	130.6
1/25/2006 11:00	84.6	145	5.1	139.9	80.3	109.4	3.5	133.8
1/25/2006 12:00	85.6	121.5	5.1	139.9	83.3	116.6	3.5	135.6
1/25/2006 13:00	208.7	86.8	5.1	140.1	690.7	124.1	3.5	137.1
1/25/2006 14:00	154	53.8	5.1	139.9	77.7	23.6	3.2	137.3
1/25/2006 15:00	150.6	23.8	5.1	140	65.4	18.9	2.5	137.3
1/25/2006 16:00	151.9	38.8	3.8	140.1	66.6	12.4	2.5	137.3
1/25/2006 17:00	71.2	101.2	2.6	140	65.6	33.3	1.7	137.4
1/25/2006 18:00	75.5	138.8	2.6	140.2	58.2	90.9	1	137.2
1/25/2006 19:00	63.8	226.7	2.6	141.8	92.1	57.6	1	137.7
1/25/2006 20:00	200.6	382.2	3.3	143.8	280.8	29.4	0.9	138.9
1/25/2006 21:00	142	530.7	1.3	145.1	1033.9	100.2	1	137.5
1/25/2006 22:00	75.3	385.3	1.7	144.9	171.7	34.9	1.2	135.4
1/25/2006 23:00	117.1	113.5	2.3	145.1	64.7	52.1	1.2	137.1
1/26/2006 0:00	253.5	156.6	2.2	145.1	80.5	67.9	1.2	137.4
1/26/2006 1:00	118.6	114.1	2.2	145	115.9	191.8	1.6	140.1
1/26/2006 2:00	103.7	52.5	2.2	142.1	81.3	162.4	2.9	147.9
1/26/2006 3:00	70.4	37.7	2.2	134.2	152	17.9	1.7	147.8
1/26/2006 4:00	53	146.9	2.2	135.2	115.6	25.8	1.2	135.9
1/26/2006 5:00	63	194.7	2.2	141.9	55.4	151.2	1.7	131.5
1/26/2006 6:00	68.8	161.4	2.2	142	109.7	92.7	1.4	135.4
1/26/2006 7:00	60.3	170.6	2.2	141.8	204.8	239.3	2.9	143.1
1/26/2006 8:00	62	156.9	2.1	142.1	137.1	101.6	2.1	139.1
1/26/2006 9:00	56.7	117.4	1.9	142	102.5	80.9	1.7	139.2
1/26/2006 10:00	111.4	149.1	1.5	142.1	161.3	53.8	1	139.1
1/26/2006 11:00	118.5	145.1	1.5	141.9	224.4	32	0.9	139.3
1/26/2006 12:00	102.6	44.7	1	141.9	193.4	33.3	0.5	139.2
1/26/2006 13:00	142.3	79	0.3	142.2	195.9	91.2	0.1	139.2
1/26/2006 14:00	136.3	158.6	0	142	192.6	109	0	131.6
1/26/2006 15:00	58.6	184.6	0	142.1	144.3	190.7	0	133.2
1/26/2006 16:00	60.2	200.4	0	139.8	82.5	155.1	1.4	132.5
1/26/2006 17:00	54.1	279.2	0	135.1	65.9	207	1.5	129
1/26/2006 18:00	55.7	529.8	0	138.4	127.4	348.8	3.1	132.8
1/26/2006 19:00	59	525.2	0	140.4	127.3	81.6	3.2	135.1
1/26/2006 20:00	98.3	495.5	0	144.1	105.8	261.7	3.2	139.9
1/26/2006 21:00	102.8	441.2	0	145	250.3	125.1	3.3	142.2
1/26/2006 22:00	127	411.7	0	145	739.4	59.5	3.3	143.3
1/26/2006 23:00	305.6	336.5	0	145.2	916.4	54	2.1	109.6
1/27/2006 0:00	54.7	153.8	1.1	134.3	400.8	3	3.3	77.1
1/27/2006 1:00	52.7	374.4	1.6	139.2	271.8	55.3	3.3	115
1/27/2006 2:00	142.4	351.2	1.6	147.8	111.2	111.6	2.3	136.5
1/27/2006 3:00	65.4	164.1	1.6	133.6	54.5	89.6	1	118.4
1/27/2006 4:00	58.3	362.6	1.6	137	80.1	171.1	3.2	134.7
1/27/2006 5:00	239.7	365.1	1.7	139.9	122	11.5	2	134.5
1/27/2006 6:00	353.4	280.8	1.7	140.4	135.5	10	2	119.9
1/27/2006 7:00	64.2	299.3	1.7	142.2	121.3	23.7	2	128.3
1/27/2006 8:00	68.7	233	1.7	142	117.3	62.6	2	128.2
1/27/2006 9:00	245.1	158	1.7	142	702.4	287.6	2.7	128.2
1/27/2006 10:00	112.5	166.4	1.7	142	63.7	132.6	2.7	128.2
1/27/2006 11:00	203.2	157.2	1.7	142.1	78	99.5	2	128.1
1/27/2006 12:00	145	145	1.7	142	68	163.8	2.2	129.3

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
1/27/2006 13:00	109.3	245	3.3	142	98.1	112.8	2.3	131.2
1/27/2006 14:00	70.1	274.8	0.3	142	84	92	2.5	133
1/27/2006 15:00	62.4	226.4	1.2	139.9	220.7	54.2	2.9	132.9
1/27/2006 16:00	60.4	81.1	1.6	134	153.6	124.1	1.5	133.1
1/27/2006 17:00	51.8	203.1	2.9	124.1	332.8	82.4	2.1	129
1/27/2006 18:00	52.8	181.5	4.7	124.2	61.4	41.8	0.8	119.5
1/27/2006 19:00	238.8	154.9	4.9	123.8	289.1	159.2	1.5	120.4
1/27/2006 20:00	162.8	65	2.2	123.9	53	75.4	1.5	121.5
1/27/2006 21:00	228.7	80.1	1.5	105.9	52.9	54.9	1.1	106.8
1/27/2006 22:00	40	191.2	3.1	118.1	57.2	185.7	3.2	123.2
1/27/2006 23:00	58.6	158.4	4.3	133.8	257.4	93.2	1.8	127.8
1/28/2006 0:00	64.6	87	4	135.1	398.9	385.3	1.7	128.4
1/28/2006 1:00	65.2	51.6	3.1	135.1	183	99.2	2.6	132
1/28/2006 2:00	108.2	41.3	3	134.9	117.7	273.9	3.1	132.5
1/28/2006 3:00	62.6	106.8	3	135.2	71.3	309.9	3.4	133.6
1/28/2006 4:00	55.9	68.1	3	134.9	66.9	331.5	3.4	134.7
1/28/2006 5:00	58.7	75.6	3	135	81.2	56	3.4	134.9
1/28/2006 6:00	153.4	81.2	3	134.8	151.2	46.6	3.4	135
1/28/2006 7:00	65.9	169.5	3	135.8	155.7	270	3.4	135.5
1/28/2006 8:00	99.6	47	3	136	119.9	127.9	3.4	135.8
1/28/2006 9:00	67.9	49.8	3	136.1	360.2	120.8	3.4	135.9
1/28/2006 10:00	66.9	48.3	3	136	987.1	156.7	3.3	135.7
1/28/2006 11:00	70.5	50.7	2.8	136	91.7	65.9	2.8	135.8
1/28/2006 12:00	67.5	167	1.9	136.1	120.4	122.2	2.6	135.9
1/28/2006 13:00	102.2	177.4	3	135.9	87.4	115.9	2	135.9
1/28/2006 14:00	66.9	168.3	3.4	137.8	197.7	153.8	1.1	135.8
1/28/2006 15:00	68.3	243.3	3.1	140.4	189.6	160.3	1	134.2
1/28/2006 16:00	70.8	240.3	3.1	141.9	79	155.3	1.1	134.1
1/28/2006 17:00	68.3	170.2	2.5	142.2	73.2	149.1	0.7	133.9
1/28/2006 18:00	131.8	187.3	2.4	138.2	177.5	155	0.4	129.3
1/28/2006 19:00	60.2	184.2	3	139.7	1293	251.1	2.6	129.5
1/28/2006 20:00	61.2	152	2.9	140	64.5	178.4	2	128.6
1/28/2006 21:00	62.2	168.2	2.3	139.9	144	194.3	2.5	130.7
1/28/2006 22:00	61.5	168.5	2.3	139.9	108.4	218.5	2.7	136.9
1/28/2006 23:00	58.7	159.6	2	139.9	101.2	253.3	3	138.6
1/29/2006 0:00	65.3	159.9	1.5	139.8	268.3	187.1	3.5	141.6
1/29/2006 1:00	105.9	172.1	1.5	139.8	139.9	108.1	3.5	141.5
1/29/2006 2:00	102	75.5	1.5	139.8	84.8	194.1	3.5	141.5
1/29/2006 3:00	56.4	71.4	1.5	139.8	121.6	130.3	3.5	142.5
1/29/2006 4:00	50.3	186.6	1.5	139.8	129.3	16.1	2.7	142.5
1/29/2006 5:00	100.7	161.2	1.5	139.8	101	11.9	2	136.1
1/29/2006 6:00	103.4	120.3	1.5	139.8	130.8	114.9	2	134.5
1/29/2006 7:00	206.9	144.8	1.5	139.8	592	63.1	1.6	135.8
1/29/2006 8:00	122.8	212.5	1.5	139.8	186.4	150.9	3	136.5
1/29/2006 9:00	56.4	448.8	1.5	139.8	120.6	161.7	3.2	139.5
1/29/2006 10:00	99.3	447.5	1.5	139.8	996	113.5	3.2	141.6
1/29/2006 11:00	59.2	484	1.5	139.8	78.5	66.7	2.6	141.4
1/29/2006 12:00	65.3	439.9	1.5	139.8	430.6	16.3	1.7	141.7
1/29/2006 13:00	115.5	340	1.5	139.8	372	30	1.4	142.1
1/29/2006 14:00	66.9	173.1	1.5	139.8	241.4	87.2	1	142.4
1/29/2006 15:00	157.8	119	1.5	139.8	223.2	125.1	1	142.7
1/29/2006 16:00	64.1	114.6	1.5	139.8	92.2	116.9	1.6	142.4
1/29/2006 17:00	60	152.6	1.5	139.8	72.1	96.3	1.4	140.6
1/29/2006 18:00	58.1	130.5	1.5	139.8	296.6	51.3	0.6	140.7
1/29/2006 19:00	57.4	100.8	1.5	139.8	402	64.5	0.5	140.7
1/29/2006 20:00	58.4	154.8	1.5	139.8	689.6	90.2	0.9	139.6
1/29/2006 21:00	58.3	194.7	1.5	139.8	66.3	49.7	0.5	129.8
1/29/2006 22:00	64	177.3	1.5	139.8	60.8	181.6	1.7	135.5
1/29/2006 23:00	60.4	202.8	1.5	139.8	83.6	155.7	2.3	140.7
1/30/2006 0:00	105.1	152.3	3.9	145	65.3	207	2.7	142.1
1/30/2006 1:00	64.5	142.3	3.9	145	111.7	60.9	2.6	142.7
1/30/2006 2:00	63.6	143.9	3.9	145	249.6	116.7	2.3	142.4
1/30/2006 3:00	62.3	150.2	3.9	145.1	67.2	155.8	2.6	142.5
1/30/2006 4:00	63.7	208.2	3.9	146.5	85.2	21.9	1.3	142.5
1/30/2006 5:00	65.8	120.8	3.9	148.9	72.9	17.9	1.3	130.5
1/30/2006 6:00	261.2	60	3.5	149	57.3	127.1	1.2	134.8
1/30/2006 7:00	142.3	119.6	3	150.6	154.2	279.5	1.6	147.8
1/30/2006 8:00	148.3	129.3	3	150.9	999.2	18.4	2	147.2
1/30/2006 9:00	178.3	102.7	3	151	495.4	28.7	1.2	117.7
1/30/2006 10:00	153	103.2	3	150.9	55.8	188.6	1.3	127.1
1/30/2006 11:00	65.7	94.6	3	150.9	61.5	265.7	2.8	130.8



Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
1/30/2006 12:00	62.5	81.3	2.8	150.7	76.9	103.2	2.8	132.6
1/30/2006 13:00	65.5	57.1	2.7	149.7	104.9	62.9	2.5	134.6
1/30/2006 14:00	105.7	24.3	2.7	140.5	160.4	7.3	2.5	135.1
1/30/2006 15:00	61.9	88.8	2.7	142	144.2	31.4	1.8	135
1/30/2006 16:00	63.9	157.9	3	141.4	67.7	75.7	1	134.8
1/30/2006 17:00	58.7	205.1	3.6	135.6	72.6	99.8	1.2	131.3
1/30/2006 18:00	52.9	356.4	4.8	137.1	57.5	124.8	1.6	129.9
1/30/2006 19:00	62.9	340.5	5.1	143.9	70.2	215.7	3.2	139.8
1/30/2006 20:00	60.1	223.5	5	134.6	151.6	131.4	2.6	148
1/30/2006 21:00	104.6	335.7	5	131.3	241.3	35.7	1.4	132.9
1/30/2006 22:00	210.3	181.5	4.9	118.2	128.9	139.2	2.6	131
1/30/2006 23:00	175	248.4	4.8	134.8	76.1	151.7	2.6	137.1
1/31/2006 0:00	259.2	137.6	3.6	113.7	107.2	37.8	1.5	134.5
1/31/2006 1:00	47.3	448.6	3.9	123.7	88.3	38.1	1.5	130
1/31/2006 2:00	132.9	273.9	5	131.3	82.6	169.9	2.2	134.8
1/31/2006 3:00	117.7	188.6	5	135	85.9	123.5	3	147.4
1/31/2006 4:00	102.8	144.6	5	135	161.3	21.7	1.2	127.6
1/31/2006 5:00	99.8	137.9	5	136.2	57.6	202.9	2.3	128.8
1/31/2006 6:00	205.6	108.1	5	138	149.1	112.5	2.8	139.9
1/31/2006 7:00	264.1	87.5	5	140.1	789.6	46.3	1.8	136.8
1/31/2006 8:00	200.9	56.1	5	140.2	935.5	105.2	1.8	131
1/31/2006 9:00	254.4	75.3	5	140	65.8	449.5	1.8	134
1/31/2006 10:00	210.8	112.5	4.1	139.9	79.3	168.2	2.8	137.7
1/31/2006 11:00	180.3	128	3.5	139.8	130.1	78.1	2	137.8
1/31/2006 12:00	160.8	126	3.5	140	117.7	62.5	2	140
1/31/2006 13:00	123.5	110	3.3	140.1	207.3	52.3	1.4	140.1
1/31/2006 14:00	248.5	127.1	2.9	140.1	91.4	96	1	139.8
1/31/2006 15:00	190.3	124.3	2.9	139.8	284.3	120.6	1	121.9
1/31/2006 16:00	344.2	117.7	2.9	140.1	51.3	154.3	1.4	119.9
1/31/2006 17:00	184.1	90.1	2.9	140.1	67.9	88.5	1	121.5
1/31/2006 18:00	117.6	119.1	2.7	139.9	118.9	108.5	2.2	132.1
1/31/2006 19:00	136	126.5	2.8	137.6	196.7	126	2	130.2
1/31/2006 20:00	250.4	192.2	3.7	138.8	73.9	208.3	2.8	130.2
1/31/2006 21:00	66.9	151.1	2.8	138.6	413.7	165.8	3.2	131.8
1/31/2006 22:00	102.8	215.7	3.6	137.5	93.6	74.9	1.2	125.9
1/31/2006 23:00	66.6	196.5	3.7	139.8	48.9	97.1	0.5	115.2
2/1/2006 0:00	114.5	205.7	3.3	139.9	52.6	136	0.5	114.8
2/1/2006 1:00	111.9	122.4	3.2	140	74.7	211	2.2	126.2
2/1/2006 2:00	118.8	80.3	3.2	135.9	84.7	157.8	2.5	131.5
2/1/2006 3:00	113.6	199.2	3.2	134.1	132.5	189.5	2.3	115.5
2/1/2006 4:00	63.6	205.5	3.2	140	928.2	20.2	0.9	1.2
2/1/2006 5:00	184.3	111.1	3.2	140	14.8	70.2	1.1	53.5
2/1/2006 6:00	70.7	94.1	3.2	138.9	92.2	143.7	1.5	95.4
2/1/2006 7:00	141.9	46.2	3.2	130.1	51	215.3	1.5	105.6
2/1/2006 8:00	54.8	116.8	3.3	125.8	154.1	325.2	3.2	114
2/1/2006 9:00	53.8	283.1	3.6	130.6	183.5	248.4	3.4	120.6
2/1/2006 10:00	50.5	302.3	4.7	135.2	92.4	266.7	3.4	125.3
2/1/2006 11:00	61	303.7	5	137.7	266.7	134	3.5	127.6
2/1/2006 12:00	101.9	270.3	5	140.2	315.2	74.5	3.5	128.6
2/1/2006 13:00	165.4	215.5	5.1	141.3	271.3	85.5	2.2	130.1
2/1/2006 14:00	146.2	198.7	5.1	141.8	297.4	179.6	2.1	130
2/1/2006 15:00	106.1	156.9	5.1	141.9	119	197.4	2.8	131
2/1/2006 16:00	116.9	81.7	5.1	142.2	169.5	121	3	130.9
2/1/2006 17:00	227.3	53.7	5	141.9	81	212.7	3.4	133.4
2/1/2006 18:00	189.9	88.6	5	141.8	122.9	70	3.3	136.2
2/1/2006 19:00	213	52.6	5	142	142.1	14.2	3.2	137.8
2/1/2006 20:00	223.1	43.3	4.3	142.1	415.6	8.9	3.2	117.9
2/1/2006 21:00	75.1	92.1	3.6	142	55.3	86.5	3.2	112.5
2/1/2006 22:00	138.5	72.1	3.6	142	55.6	389.5	3.3	117.6
2/1/2006 23:00	103.3	31	3.6	142.2	60.1	346.9	3.3	120.6
2/2/2006 0:00	64.2	33.1	3.6	141.9	101.5	283.6	3.4	124.1
2/2/2006 1:00	64.7	39.2	3.6	141.9	831.1	130.8	3.4	126.4
2/2/2006 2:00	75.8	30.3	3.4	142.1	163.2	65.5	3.2	131.8
2/2/2006 3:00	61.4	68.6	2.2	139.7	127.3	26.6	1.9	131.4
2/2/2006 4:00	58.7	141.1	2.2	136.5	195.8	28.2	1.5	130
2/2/2006 5:00	61.6	176.8	2.7	138.7	240.1	46.8	1.5	130.1
2/2/2006 6:00	116.1	82.9	2.8	139.8	82.7	13.4	1.5	121.8
2/2/2006 7:00	66.5	51.4	2.8	138.9	58.5	79.6	1.5	122.7
2/2/2006 8:00	163.5	136.2	2.9	139.5	109.6	94.2	1.5	124.1
2/2/2006 9:00	61.7	220.3	4.5	140.6	591.3	210	2.6	124.8
2/2/2006 10:00	64.6	182.5	4.5	141.3	641.4	356.2	3	125.5

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
2/2/2006 11:00	109.4	129.6	4.4	143.2	67.8	407.4	3.2	127.6
2/2/2006 12:00	106	94.3	4	142.9	66.5	428.7	3.3	129.2
2/2/2006 13:00	68.3	118	3.9	143.1	67	559.2	3.5	134.3
2/2/2006 14:00	239.7	58.7	3.7	142.9	135	201.7	3.5	135
2/2/2006 15:00	166.5	71.8	3.1	143.1	242.7	48	3.4	134.9
2/2/2006 16:00	162	139	3.3	141.1	140.6	25.3	2.4	135
2/2/2006 17:00	134.2	162.7	4.8	132.3	219	33.2	2	135
2/2/2006 18:00	161.8	327.4	5.1	128.2	314.8	24.6	2	133.7
2/2/2006 19:00	243.6	171.8	5	120.7	184.5	40.7	2	125.3
2/2/2006 20:00	255.7	82.5	3.6	115.3	117.3	123.4	2.7	115.1
2/2/2006 21:00	179.4	131.5	2.2	115	63.9	148	3.1	115.1
2/2/2006 22:00	450.2	103.8	1.8	114.9	57.9	244	3.5	114.9
2/2/2006 23:00	139.4	120	1	112.2	58.6	181.4	3.3	115.1
2/3/2006 0:00	184.2	162.4	1	109	59.6	43.4	2.3	115
2/3/2006 1:00	273.3	191.9	1	110	61.3	99.9	1.6	115
2/3/2006 2:00	220.6	175.1	1.3	110	61.8	221.6	2.5	115
2/3/2006 3:00	266.7	181.8	1.4	110.1	87.3	108.9	2.5	115
2/3/2006 4:00	206.4	156.2	1.5	110.1	72.1	138.3	2.5	115
2/3/2006 5:00	95.4	196.1	1.5	110.1	103.6	167.5	2.5	115
2/3/2006 6:00	43.8	310.9	2.5	114.1	155.2	117.6	2.5	114.9
2/3/2006 7:00	45	480.8	2.9	114.9	274.6	80.5	2.5	115.1
2/3/2006 8:00	47.5	688.9	2	115.1	70.7	15.7	2.5	114.9
2/3/2006 9:00	159.9	591.7	0	37.1	211.9	4.4	2.5	86.8
2/3/2006 10:00	275.7	206.9	0	70.7	161.1	25	0.6	74.9
2/3/2006 11:00	29	262.7	0	92.6	44.1	77.2	0.5	96.8
2/3/2006 12:00	125.5	282.1	0	102.6	49.4	130.4	0.9	108.4
2/3/2006 13:00	38.9	242.2	1	109.4	54.2	58.3	1	114.9
2/3/2006 14:00	153.2	30	3.5	110	55.1	54.6	0.8	115.1
2/3/2006 15:00	124.3	6.8	3.5	110.1	57.3	84.6	0.9	114.9
2/3/2006 16:00	44.3	67.6	3.5	126	55.6	149.8	0.9	118.7
2/3/2006 17:00	383.1	54	2.5	105.2	313.4	79	0.9	120
2/3/2006 18:00	233.2	40	2.3	80.1	108.3	115.8	0.9	122.4
2/3/2006 19:00	30.7	413	2.1	109.4	158.5	69.9	0.8	123
2/3/2006 20:00	47.7	586.5	1.6	129.8	62.4	150.4	0.9	123
2/3/2006 21:00	100.5	479.3	1.3	134.8	191.8	84.1	0.8	123
2/3/2006 22:00	111.4	580	0.4	134.9	119.3	114.2	1	121.5
2/3/2006 23:00	150.5	591.9	2.4	135	101.3	205.1	2.7	120
2/4/2006 0:00	57	480.8	1.5	135.2	78.4	107.8	3.5	120
2/4/2006 1:00	51.8	319.5	1.9	135	143.8	118	3.3	121.8
2/4/2006 2:00	57.3	384.6	0.6	135.3	167.8	158.5	3.5	125.1
2/4/2006 3:00	289.3	446.9	0.9	134.8	151.9	151.2	3.5	127.6
2/4/2006 4:00	101.9	175.5	3.1	135.4	122.3	121.1	3.5	129.8
2/4/2006 5:00	102	100.9	3	135.7	176.3	86.5	3.4	132
2/4/2006 6:00	66.8	167.2	3	132.2	335.4	41.4	3.4	132.2
2/4/2006 7:00	51.8	275.2	3	130.4	171.5	7.6	3.4	130.1
2/4/2006 8:00	49.5	337.8	3	131.3	116.3	7.3	3	129.9
2/4/2006 9:00	54.9	329.7	3	133.3	90.3	47.2	2.5	130.1
2/4/2006 10:00	145.2	322.4	3	134.1	62.1	87.6	2.5	130
2/4/2006 11:00	51.8	273.2	3	133.8	74.5	114.4	2.5	129.9
2/4/2006 12:00	53.5	289.5	3	134	88.5	77.8	2.5	130
2/4/2006 13:00	55.1	318.1	3	134	85.7	170.5	2.7	130
2/4/2006 14:00	57.4	280.1	3.2	134.2	78.5	150.6	3	130
2/4/2006 15:00	168.3	201.3	1.1	73.2	72	195.8	3	129.9
2/4/2006 17:00	953.1	124.7	0.9	17.7	124.2	259.2	2.8	130
2/4/2006 18:00	36.4	370.2	1.7	72.4	70.2	228.2	2.6	129.9
2/4/2006 19:00	47.5	467.6	3	110.8	124	251.9	2.4	130
2/4/2006 20:00	157.6	419.1	3	123.4	103	316.5	2.3	130.2
2/4/2006 21:00	59.9	429.2	3	127.9	64.7	317.7	2.1	129.9
2/4/2006 22:00	60.4	444.5	3	129.8	113.3	294.3	2	130.1
2/4/2006 23:00	163.4	447.1	3	129.9	112.4	187.3	1.9	129.9
2/5/2006 0:00	189.3	411.9	3	133.4	66	48.3	1.8	129.9
2/5/2006 1:00	188.5	359.5	3	135	64.1	279.8	1.7	130
2/5/2006 2:00	239.3	337.5	3	135	371	242.7	1.6	131.5
2/5/2006 3:00	180.5	215.8	3	135	62	370.2	1.4	127.2
2/5/2006 4:00	116.5	157.2	3	135	64.2	485.9	0.3	129.3
2/5/2006 5:00	89.7	82.1	3	135.1	64.8	439.5	0.5	131.1
2/5/2006 6:00	57.4	106	3	134.5	65.5	532.7	0.7	131.2
2/5/2006 7:00	401.9	108.9	3	124.5	65.9	335.4	0.7	132
2/5/2006 8:00	285.3	65.4	3	120.7	68.9	291.6	0.7	131.7
2/5/2006 9:00	140.3	105.2	2.7	120	514.8	145.6	1.3	132
2/5/2006 10:00	115.3	92.8	1.8	120	69.9	59.9	2.5	132.1

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
2/5/2006 11:00	200	132.1	1.7	109	73.3	181.6	2.3	128.9
2/5/2006 12:00	95.3	136.1	3.2	107.8	111.1	168.5	2.4	130.7
2/5/2006 13:00	110.8	172.1	2.2	109.7	69.5	226.1	2.6	131.8
2/5/2006 14:00	96.1	172.4	2.4	105.4	72.7	110.9	2.8	131.6
2/5/2006 15:00	41.4	140.5	2.9	104.8	373.3	171.3	3.4	133.2
2/5/2006 16:00	42.4	135.3	3.3	104.9	78.8	40.7	3.2	132.1
2/5/2006 17:00	95.5	113.9	3.4	105	71.8	112.5	3	131.9
2/5/2006 18:00	95.4	105.3	3.4	104.8	301	143.4	2.9	132.1
2/5/2006 19:00	142.7	68.2	3.3	104.6	325.5	119	2.8	131.7
2/5/2006 20:00	398.4	142.7	3.3	83.2	56.8	35.6	2.6	115.4
2/5/2006 21:00	466.5	245	3.4	101.5	57.4	174	2.2	114.9
2/5/2006 22:00	207.7	122.4	3.5	119	61.3	429.6	2.1	115.7
2/5/2006 23:00	19.7	87.7	3.5	89.3	67.3	372.4	2.3	125.6
Kiln down annual Outage				Kiln down annual Outage				
2/12/2006 18:00	20.2	18.4	0	41.1	69.6	262.3	3.3	134.8
2/12/2006 19:00	76.7	99.5	0	47.1	101.1	279	3.3	133.4
2/12/2006 20:00	131.8	163.6	0	66.7	58	194.8	3.3	117.8
2/12/2006 21:00	32.4	248.1	0	86.7	61.4	22.5	3.3	119.6
2/12/2006 22:00	934.8	173.7	0	76.8	72.7	47.1	3.3	129
2/12/2006 23:00	39.8	158.6	1.2	89.7	73.6	221.3	3.3	134.9
2/13/2006 0:00	1243.1	62.6	1	86.7	83.7	142.9	3.3	134.9
2/13/2006 1:00	581.7	92.5	1.1	76.6	123.9	72.2	2.9	135.2
2/13/2006 2:00	36.7	262.2	3	89	88.4	106.7	2	135
2/13/2006 3:00	37.8	206.5	4.2	99.3	86.1	101.6	1.9	135
2/13/2006 4:00	43.2	206.5	4.3	109.6	81.4	128.1	1.7	135.1
2/13/2006 5:00	46.5	175.4	3.5	107.8	70.2	88.1	1.6	135
2/13/2006 6:00	233.9	64.9	2.6	88.7	115.5	97	1.4	135
2/13/2006 7:00	38.5	271.6	4.6	104.9	226.1	32.7	1.4	121.7
2/13/2006 8:00	45.2	107.9	5	110.7	56.3	224	1.6	120.5
2/13/2006 9:00	435.1	104.4	5	116.2	64	396.5	3.3	133.3
2/13/2006 10:00	342.9	215.2	5	127	70.6	257.5	3.3	135
2/13/2006 11:00	139.5	267.2	5	134.3	153.4	140.1	3.3	135
2/13/2006 12:00	220.4	227.6	4.9	134.6	68.4	311.6	3.2	135
2/13/2006 13:00	128.7	447.1	4.7	130	64.7	652.6	2.9	134.9
2/13/2006 14:00	106.7	587.4	2.7	122.9	399.6	645.4	1.7	111.6
2/13/2006 15:00	105.7	354.6	0	120.1	59.8	874.6	0	127.5
2/13/2006 16:00	197	233.9	0	120	64.7	881.1	0.1	130.9
2/13/2006 17:00	115.9	248	0	120.4	73	553.3	3.3	135
2/13/2006 18:00	44.6	458.3	3.2	122.7	69.2	374.3	3.4	135
2/13/2006 19:00	48.2	146.8	4	127.4	79.5	135.5	3.4	134.9
2/13/2006 20:00	58.4	111.3	3.9	126.2	148	48.9	3.1	135.1
2/13/2006 21:00	512.5	102.9	2.1	115.3	127.3	100.4	2.5	134.9
2/13/2006 22:00	510.1	141.6	3	115.3	105.8	112.7	2.5	134.8
2/13/2006 23:00	817.8	174.9	3.1	115.1	84.1	255.6	3.1	135
2/14/2006 0:00	42.9	371.3	4	116.6	76.5	336.7	3.4	134.8
2/14/2006 1:00	42.2	336.9	5.1	122.5	80.2	204	3	135.1
2/14/2006 2:00	47.9	273.2	5.1	128.8	79.5	157.3	2.1	135
2/14/2006 3:00	247.4	167.3	3.3	115.3	81.5	98.6	1.3	135.3
2/14/2006 4:00	289	197	4.5	113.8	118.7	129.4	1	134.4
2/14/2006 5:00	83.7	421.4	5	118.1	222.4	146.9	1	135.7
2/14/2006 6:00	43.1	480.4	5.1	126.5	211	227.4	1	134.6
2/14/2006 7:00	48	292.1	5.1	129.9	159.4	224.1	1.1	135.1
2/14/2006 8:00	47.8	169.3	5.1	129.9	129.1	140.6	1.2	135.1
2/14/2006 9:00	50.4	231.2	5.1	130.5	117	162.6	1.2	135.1
2/14/2006 10:00	572.6	248.5	5.1	134.7	78.7	206.9	2.1	134.9
2/14/2006 11:00	557.5	112.8	5.1	135	76.8	106.6	2.7	135.3
2/14/2006 12:00	58.8	161.5	5.2	135.2	83.9	83.8	2.8	134.9
2/14/2006 13:00	146.7	228.3	5.2	135.3	90.3	55.9	3.1	135
2/14/2006 14:00	53.7	324.6	5.2	138.6	154.3	120.9	3	135.1
2/14/2006 15:00	52.5	398.7	5.2	135	177.1	151	3	134.8
2/14/2006 16:00	51.8	333.4	5.1	134.6	125.8	75.8	3	134.9
2/14/2006 17:00	146.4	330.6	5.1	138.9	140	66.8	2.2	135.1
2/14/2006 18:00	171.6	405.6	5.1	139.9	79.7	93.7	2	134.7
2/14/2006 19:00	63.1	514.6	5.1	140	150.1	174.5	2	135.3
2/14/2006 20:00	63	465.2	5.1	140	77.1	233.2	2.4	134.9
2/14/2006 21:00	62.6	247.9	5.1	139.8	76.6	171.3	2.5	135.1
2/14/2006 22:00	155.8	427.5	5.1	136.6	70.1	87.5	2.5	134.9
2/14/2006 23:00	42.3	576.2	5.1	135	77.7	67.6	2.5	134.9
2/15/2006 0:00	44.8	595.1	5.1	129.1	83.9	79.1	1.7	135
2/15/2006 1:00	581	187.7	5.1	114.8	177.1	62.8	1.4	131.8

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
2/15/2006 2:00	43.1	126.9	5.1	118.5	156.7	109.2	1	135
2/15/2006 3:00	44.6	219.6	5.1	122.5	174.2	47.6	1	133.7
2/15/2006 4:00	49.6	118.4	5.1	127.3	103.8	40.7	0.8	127.4
2/15/2006 5:00	52.7	49.8	5.1	131.7	62.6	133	0.9	124
2/15/2006 6:00	102.3	65.3	5.1	135	104.4	137.6	1.9	129.1
2/15/2006 7:00	64.7	34.5	5.1	136.1	86	137.8	2.8	134
2/15/2006 8:00	57.3	19.7	5.1	136.1	77.8	73.8	2	131.4
2/15/2006 9:00	63	34.5	4.3	139.8	81	143.6	2	133.8
2/15/2006 10:00	59.4	89.8	2.5	138.8	72.9	95.1	2	132.2
2/15/2006 11:00	53.1	78.1	1.6	135	72.5	71.9	2	133.2
2/15/2006 12:00	221.2	129.1	3.1	135	71.7	26.7	1.9	133.3
2/15/2006 13:00	145.9	515.1	3.4	135	109	14.6	1.8	131
2/15/2006 14:00	54.8	648.1	3.9	135.1	65.8	31.7	1.3	115.2
2/15/2006 15:00	96.1	809.4	4.2	135.1	53.7	100.7	1.7	118.4
2/15/2006 16:00	51.3	880	4.6	137	56.9	302.3	2.6	124.4
2/15/2006 17:00	93.5	597.8	4.9	139.9	112.1	304	3.5	134.7
2/15/2006 18:00	108.9	610.9	5	140.1	75.6	203.9	3.5	136.6
2/15/2006 19:00	820.7	408.5	5	140	149.5	182.8	3.5	137
2/15/2006 20:00	58.5	228.9	5	140.3	87.6	154.9	3.5	138.7
2/15/2006 21:00	55.7	113.1	5	140.2	176.7	107.4	3.5	138.1
2/15/2006 22:00	53	147.5	5	139.7	150.5	57.9	3.5	138
2/15/2006 23:00	56.1	122	5	139.9	155.4	51.9	3.5	137.9
2/16/2006 0:00	123.6	113	5	139.7	153.2	26.5	3.4	138.1
2/16/2006 1:00	637.1	15.3	5	135.1	160.5	14.1	2.3	137
2/16/2006 2:00	64	14.1	5	134.9	124.8	13.5	2	121.3
2/16/2006 3:00	207.7	9.3	5	130.8	150.6	47.1	2.5	110
2/16/2006 4:00	52.4	54.1	4.2	133.7	72.6	195.5	3.4	129.6
2/16/2006 5:00	51.7	89.3	5	135	151.6	33.2	3.4	130.1
2/16/2006 6:00	51.1	68.8	5	133.6	116.9	30.9	3.4	130.2
2/16/2006 7:00	49.8	32.2	5	130	74	81.5	3.4	132
2/16/2006 8:00	45.5	142	5.2	130.1	76.2	41	2.7	131.9
2/16/2006 9:00	48.8	211.8	2.7	129.9	70.9	100.2	2.5	132.6
2/16/2006 10:00	50.1	99.9	2.8	129.9	71.1	307.9	2.3	133.1
2/16/2006 11:00	1219.3	97.3	1.5	112.8	74.5	316.6	2.4	134.4
2/16/2006 12:00	38.8	142.6	4	121	125.7	199.6	2.9	135
2/16/2006 13:00	151.3	302.9	5.2	136	154.9	183	2.7	135.1
2/16/2006 14:00	266.4	148.2	4.4	138.9	124.3	163.2	2.9	135.1
2/16/2006 15:00	641.9	83	1.4	117	122.4	109.9	1.3	134.9
2/16/2006 16:00	1074.9	133.4	0.4	105.3	119.4	113.6	1.9	134.9
2/16/2006 17:00	272.7	127.4	1.9	106.2	261.2	111.5	2.2	134.1
2/16/2006 18:00	33.8	196.2	4.6	117.2	292.5	113.5	3.4	134.5
2/16/2006 19:00	45.4	349.2	5.2	133.2	246.1	146.2	3.5	137.4
2/16/2006 20:00	51.8	343.5	5.2	135.2	293.4	94.4	2.2	136.9
2/16/2006 21:00	47.6	310.8	5.2	135	211	110.4	1.6	130.2
2/16/2006 22:00	792.2	137.1	4.6	133.3	323.9	47.9	0.2	12.2
2/16/2006 23:00	44.6	93.2	2.5	125.2	0	1.6	0	0
2/17/2006 0:00	46	114.5	2.5	124.5	0	2.6	0	0
2/17/2006 1:00	99.9	122.1	3.4	112.8	706.7	68	0.3	33.5
2/17/2006 2:00	40.5	239.7	5.2	127.7	729	83.9	1	71.8
2/17/2006 3:00	92.3	200.7	5.2	120	103.7	79.7	1	63.9
2/17/2006 4:00	333.5	260.2	5.2	120.5	813.8	237.9	1.5	93.8
2/17/2006 5:00	309.3	298.1	5.2	124.7	706.1	305.1	2.9	112.5
2/17/2006 6:00	371.1	305.5	5.2	129.6	194.3	225.7	3.5	129.2
2/17/2006 7:00	135.2	407.7	5.2	130.1	837.8	96.9	3.5	125.5
2/17/2006 8:00	51.4	390.2	5.2	135.4	267.1	119.8	2.8	125.2
2/17/2006 9:00	60.9	348.2	5.2	144.4	352.3	129.4	3.3	125
2/17/2006 10:00	776.4	74.1	3.3	120.1	65.5	102.3	2.7	124.9
2/17/2006 11:00	464.3	96	2.6	123.2	174.9	109.9	2.8	125.1
2/17/2006 12:00	927.7	107.2	1.1	112.9	166.4	134	3.1	125
2/17/2006 13:00	538	133.5	2.8	107.6	65.1	111.9	2.1	125.1
2/17/2006 14:00	42.5	168.5	5.2	113.4	116.6	115.6	3.1	125
2/17/2006 15:00	44.6	267	5.3	132.7	61.9	172.3	3.5	125
2/17/2006 16:00	52.7	210.4	5.3	140.4	61.7	262.8	3.6	125.5
2/17/2006 17:00	60.2	184.6	3.9	138.2	106.1	271.5	3.6	123.8
2/17/2006 18:00	52.1	102.2	2.8	113.2	55.8	298.2	3.2	120.9
2/17/2006 19:00	40.6	105.6	1.6	108.4	66.2	397.9	3.5	126.6
2/17/2006 20:00	1353	232.9	1.6	110	62.1	327.2	3.5	128
2/17/2006 21:00	41.3	490.3	1.9	116.4	107.5	254.3	3.5	131.5
2/17/2006 22:00	45.9	368.9	5.2	125.2	127.3	206.4	3.5	135
2/17/2006 23:00	49	60.4	2.7	125	107.1	97.3	2.9	130.7
2/18/2006 0:00	44.5	105.8	1	115.4	103.7	194.7	3.5	131.8

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
2/18/2006 1:00	43.3	118.4	1.5	117.6	76.9	222.4	3.5	134.9
2/18/2006 2:00	45.3	112.4	1.8	117.9	112.6	97.8	3.2	135
2/18/2006 3:00	43.7	120.1	2.6	115.1	80.9	109.5	3.1	135.1
2/18/2006 4:00	659.6	106.1	2.6	111.7	109.2	111.6	2.7	133.3
2/18/2006 5:00	40.4	124	3	106.6	185.7	108.8	2.1	130.1
2/18/2006 6:00	41.7	102	3.6	114.4	224.5	117.5	2.6	127.6
2/18/2006 7:00	41.8	125.1	3.4	115.9	117.2	270.3	3.5	134.6
2/18/2006 8:00	43.6	255.3	5.2	122.7	197.4	98	2.6	135
2/18/2006 9:00	720.9	130.8	4.9	121.6	80.7	113.1	2.8	134.9
2/18/2006 10:00	770.4	87.9	3.2	117.3	77.2	173.1	3.2	135
2/18/2006 11:00	254.8	102.5	2	113.6	75	108.6	2.3	135.1
2/18/2006 12:00	42.2	131.5	3.3	113.9	73.7	116.5	3.1	135
2/18/2006 13:00	41.3	110.6	4.3	115.1	75.3	105.5	2.8	135.1
2/18/2006 14:00	41.9	113.7	3.7	110.6	72	127.6	3.5	135
2/18/2006 15:00	42.7	102.6	4	111.8	74.6	114.4	3.2	135
2/18/2006 16:00	598.7	99.9	2.6	111.8	74.9	109.9	2.8	135
2/18/2006 17:00	43.4	113.1	2.3	110.1	73.3	111.1	2.7	135
2/18/2006 18:00	43.2	112	2.5	109.9	110.8	126.4	3.4	135.1
2/18/2006 19:00	37.8	110.1	2.4	110	148.2	174.9	3.5	134.9
2/18/2006 20:00	35.7	121.9	3.3	111.9	134	99.3	2.1	135
2/18/2006 21:00	40.2	115.8	4.1	115	137.3	106.5	1	134.9
2/18/2006 22:00	42.3	93.8	2.8	115	122.1	108.1	0.5	134.1
2/18/2006 23:00	41.7	101	1.6	114.5	57.9	145.1	2.1	115.7
2/19/2006 0:00	45.4	112.5	1.4	101.2	63.1	255.6	3.5	123.3
2/19/2006 1:00	40.8	132.8	3.1	104.7	97	295.3	3.5	130
2/19/2006 2:00	43.1	192	5.2	118	69.2	268.6	3.5	133.5
2/19/2006 3:00	616.2	69.9	3.7	121.9	73.2	184	3.5	135
2/19/2006 4:00	50.4	103.6	1.6	107.5	74.8	110.9	3.4	135.1
2/19/2006 5:00	36.5	137.3	3.6	104.6	73.7	163.7	3.5	135
2/19/2006 6:00	42.5	93.8	3.9	114.4	201.1	138	3.5	134.9
2/19/2006 7:00	47	102.6	2.3	121.7	75.4	125.2	3.2	135
2/19/2006 8:00	49.1	107.2	1.3	120.4	77.5	112.3	3.1	135
2/19/2006 9:00	44.7	117.5	2.1	119.9	79.7	134.7	3.5	135
2/19/2006 10:00	46	120.8	3	120	75.1	142.3	3.5	135.1
2/19/2006 11:00	586.3	110.6	3.1	119.3	72.1	164.3	3.5	135.1
2/19/2006 12:00	522.8	107.4	2.4	117.8	70.1	206.3	3.5	135
2/19/2006 13:00	46.7	107.8	3	121.7	72.9	131.4	3.5	135
2/19/2006 14:00	305.9	89.6	1.1	106.6	71.8	188.9	3.5	134.9
2/19/2006 15:00	35.2	156.4	3.6	107.9	68.9	211.5	3.5	135.1
2/19/2006 16:00	41.4	100.1	4.1	113.7	68.3	190.7	3.5	134.9
2/19/2006 17:00	228.2	98.7	3	114.3	71.5	145.8	3.5	135.2
2/19/2006 18:00	169.2	180.9	5	115.1	73	147.6	3.5	135.7
2/19/2006 19:00	42.8	276.8	5.2	116.2	77	200.8	3.5	136.7
2/19/2006 20:00	37.7	382	5.2	117.8	77.6	202.9	3.5	137.9
2/19/2006 21:00	41.8	453.9	5.2	120.7	76.6	180.7	3.5	139.2
2/19/2006 22:00	47.8	272.8	5.2	122.8	78.1	98.3	2.5	140
2/19/2006 23:00	49	75.4	4.2	119	73.7	109.6	2	140.2
2/20/2006 0:00	50.8	120.2	4.1	122.4	74.4	110.1	1.9	139.9
2/20/2006 1:00	49.6	106.5	3.6	124.8	74.7	109.3	1.7	140
2/20/2006 2:00	51.1	96.7	2.9	124.9	74.3	107.3	0.8	140
2/20/2006 3:00	49.7	100.1	1.7	121	72.8	126.8	0.6	138.7
2/20/2006 4:00	686.1	121	1.8	101.9	108.9	68.3	1	135
2/20/2006 5:00	36.2	191.2	4.8	107.7	73	80	1	135.1
2/20/2006 6:00	363.3	118.1	4.5	113.1	75	85.5	0.9	132.1
2/20/2006 7:00	43.3	134.5	4.6	114.1	68.8	121.5	2.6	130.1
2/20/2006 8:00	92	238	5.2	114.9	71.5	123.8	3.5	133.4
2/20/2006 9:00	49.8	193.7	5.2	122.6	74.4	103.8	3.2	137.5
2/20/2006 10:00	123.1	230	5.2	132.7	132	107.1	1.8	140.1
2/20/2006 11:00	106.5	127.7	4.9	144.1	145.3	107.5	0.9	137.3
2/20/2006 12:00	178.7	80.5	2.4	145	108.3	112.3	1	132.2
2/20/2006 13:00	110.3	110.5	1.9	140.4	66.3	110.8	1.2	130
2/20/2006 14:00	106.1	115.6	2.2	140.1	63.4	119.3	2.8	128.6
2/20/2006 15:00	187.4	156.1	4.8	140.2	251.6	140.4	3.6	134
2/20/2006 16:00	143.9	129.4	5.2	140.2	169.3	98	3.5	134.9
2/20/2006 17:00	54.6	209.6	5.2	140.3	110.3	105.6	3.1	134.9
2/20/2006 18:00	607.8	158.3	5.1	142.6	73.5	110.5	3.2	135.7
2/20/2006 19:00	97	138.5	5	145.9	67.4	108.3	3.1	136.2
2/20/2006 20:00	191	129.2	5.1	145.1	66.4	108.1	2.5	136
2/20/2006 21:00	58.8	109.3	4.9	144.9	63.9	104.3	1.4	135.9
2/20/2006 22:00	58.9	99.6	4.6	144.9	65.2	93.9	0.7	125.2
2/20/2006 23:00	417.8	104.8	4.1	145.2	56.4	149.4	1.2	118.6


Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (ppm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (ppm)	Kiln Feed rate (tph)
2/21/2006 0:00	60	123.1	4.3	144.9	63.5	142.2	3.3	126.6
2/21/2006 1:00	63.5	95.3	3.7	145.2	69.7	102.1	2.4	130
2/21/2006 2:00	60.3	100.4	2.5	144.8	64.6	107.5	1.1	130
2/21/2006 3:00	67.5	101.2	1.3	134.1	64.6	108.3	0.9	128.1
2/21/2006 4:00	45.6	148.8	3.6	112.7	88.3	88.7	1.4	93.3
2/21/2006 5:00	161	100.5	4.4	123.8	63	118.9	3.1	123.9
2/21/2006 6:00	49.2	122.5	4.6	124	80.3	98.5	2	128.8
2/21/2006 7:00	128.1	108.3	4.5	124	107.5	114	1.6	125
2/21/2006 8:00	141.4	76.8	0.9	119.7	145.8	109.4	2.1	125
2/21/2006 9:00	110.9	120.9	1.3	115.6	107.2	117.6	2.6	127.5
2/21/2006 10:00	100.1	109.5	1.3	116.2	121.3	134.2	3.5	132.5
2/21/2006 11:00	51.6	119.9	1.8	116.1	147.7	115.8	3.5	134.5
2/21/2006 12:00	49.4	135.6	3.8	125.9	130.8	94.6	3.1	135
2/21/2006 13:00	61.6	119.9	5	139.7	202.4	107.6	2.2	135.1
2/21/2006 14:00	256	87.5	3.3	141.8	203.6	103.2	0.9	134.3
2/21/2006 15:00	435.7	95.7	1.9	142.1	81	120.9	1	130
2/21/2006 16:00	58.9	137.3	3.6	142.3	114.5	111.5	1.5	130.1
2/21/2006 17:00	62.6	117.4	4.8	143.6	112.6	114.3	2	122.7
2/21/2006 18:00	58.3	100	4.7	144	210.9	137.9	2.9	116.3
2/21/2006 19:00	703.3	109.1	4.6	144.2	180.9	195.6	3.6	120.8
2/21/2006 20:00	62.6	114.9	4.5	144.8	115.4	242.5	3.6	125.1
2/21/2006 21:00	60.7	119.8	5	144.9	69.3	245.6	3.5	131.6
2/21/2006 22:00	60.2	165.1	5.2	145.3	78.2	240.3	3.5	136.4
2/21/2006 23:00	57.8	86.9	4.5	144.8	129.7	89.4	3.1	138
2/22/2006 0:00	54.5	109.9	4.2	145.3	119.2	109.5	2.3	138.1
2/22/2006 1:00	57.5	113.8	4.3	145.1	76.9	108.9	2.3	137.9
2/22/2006 2:00	56.9	116.8	4.8	144.6	162.7	109.2	2.1	136.9
2/22/2006 3:00	57.7	121.7	5.2	142.2	166.2	106.3	1.4	131.9
2/22/2006 4:00	56.8	177.5	5.2	144	67.7	123	2.3	130.7
2/22/2006 5:00	59.8	146.9	5.2	144.9	113.9	107.7	3.3	134.9
2/22/2006 6:00	59.1	138.5	5.2	144.9	70.1	100.7	2.2	133.3
2/22/2006 7:00	507.9	254.4	5.2	145	283.2	135.5	2.2	113.3
2/22/2006 8:00	53.6	244.5	5.2	145.1	59.6	184.2	3.5	125.9
2/22/2006 9:00	192.1	309	5.2	144.9	483	124.9	2.6	131.9
2/22/2006 10:00	54.1	312.3	5.2	145	388.8	110	0.9	132.9
2/22/2006 11:00	56.8	348.7	5.2	146	349.3	115.1	1.9	135.6
2/22/2006 12:00	53.2	285.3	5.2	146	385.9	111	2.4	137.5
2/22/2006 13:00	61.9	185.3	5.2	146	361.7	99.7	0.7	127.9
2/22/2006 14:00	145.2	199.6	5.2	146.1	142.1	222.4	1.4	85.7
2/22/2006 15:00	96.4	225.9	5.2	146	37.4	111.9	2.9	80
2/22/2006 16:00	69.8	372.8	5.2	146.4	41.8	109	2.9	80.7
2/22/2006 17:00	64.9	387.2	5.2	147	49.5	161.8	3.5	97
2/22/2006 18:00	212.8	342.6	5.2	143.1	394	269	3.5	113
2/22/2006 19:00	403.1	269.2	5.2	149.6	155.9	299	3.5	123.2
2/22/2006 20:00	900.3	322.6	5.2	150.1	172	348.3	3.5	132.4
2/22/2006 21:00	464.3	243	5.2	150	255.7	262.5	3.5	135.6
2/22/2006 22:00	488.5	243.8	5.2	149.8	151.4	104.3	3.3	137.5
2/22/2006 23:00	197.4	285.3	5.2	150.1	201.9	107.9	2.4	138.8
2/23/2006 0:00	221.1	285.9	5.2	150	230.2	109.9	2.3	139.1
2/23/2006 1:00	291.4	184.6	5.2	150.1	347.8	107.1	1.7	139.1
2/23/2006 2:00	275.1	146.4	5.2	150.5	224.7	107.4	1.1	139
2/23/2006 3:00	538.8	189.4	5.2	150	261	108.5	0.3	139
2/23/2006 4:00	204.3	159.8	5.2	149.9	267.2	111.7	0.2	139
2/23/2006 5:00	117.1	73.2	3.3	150	119.8	110	0.5	139.1
2/23/2006 6:00	85.8	111.4	2.7	150.5	139.6	113.9	0.3	139
2/23/2006 7:00	776.2	105.3	2.8	150	169.4	116	0.8	139
2/23/2006 8:00	701.5	103.1	1.7	150	128.1	109.8	0.9	139
2/23/2006 9:00	226.1	123.4	3	149.8	243.1	102	0.7	138.1
2/23/2006 10:00	275.3	121.1	3.5	150.2	116.1	85	0.6	131.5
2/23/2006 11:00	437.4	101	3.3	150	239.8	99.9	0.8	126.9
2/23/2006 12:00	300.9	106.3	2.7	149.9	243.8	122.1	2.8	131.1
2/23/2006 13:00	193.9	102.4	2	150.1	169.9	107.4	3.1	134.6
2/23/2006 14:00	254.2	112.2	1.9	149.9	331.3	101.5	1.8	133.7
2/23/2006 15:00	221.4	113.9	2.1	150.1	330.3	78.7	0.7	92.6
2/23/2006 16:00	514.3	118.4	2.4	150	305.9	125.2	1.8	89.2
2/23/2006 17:00	595.4	87.2	0.7	131.1	203.5	169.2	3.6	107.2
2/23/2006 18:00	167.1	224.5	4.6	125.7	235.2	181.5	3.6	120.3
2/23/2006 19:00	120.8	208.6	5.2	137.1	175.7	226	3.5	132
2/23/2006 20:00	762.4	95.9	4.1	143.9	216.1	149.7	3.5	137.2
2/23/2006 21:00	126.2	106	2.1	147	253.1	119.4	3.5	139.6
2/23/2006 22:00	106.4	106.1	2	148.8	441.6	89.3	2.9	141.9

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (ppm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (ppm)	Kiln Feed rate (tph)
2/23/2006 23:00	986.4	108.2	1.8	149	112.2	104.2	1	142
2/24/2006 0:00	63.2	113	1.8	149	126.5	71.3	0.6	133.9
2/24/2006 1:00	60.8	104.5	1.3	149	150.3	89.4	1.7	92.2
2/24/2006 2:00	65.5	121.4	1.9	143.7	52.5	193.2	3.5	110.1
2/24/2006 3:00	62.4	139.3	4	140.2	69.8	194.4	3.5	123.1
2/24/2006 4:00	69.8	106.7	5	142.2	193.1	95.6	3.2	134.1
2/24/2006 5:00	79.7	115.1	4.8	143.5	116.6	107.6	2.1	135
2/24/2006 6:00	70	99.4	4.6	147.3	74.1	105.7	1.3	135.1
2/24/2006 7:00	121.6	116.2	4.1	141.5	66.3	101	0.7	129.9
2/24/2006 8:00	202.8	134.7	5.2	124	606.2	106	1.2	111.9
2/24/2006 9:00	95.1	90	4.9	120.2	374.4	111	1.6	84
2/24/2006 10:00	43.2	97.4	3.5	120.4	129.4	109.9	3	99.2
2/24/2006 11:00	56.3	100.2	2.2	123.1	47.1	104.5	1.9	107.7
2/24/2006 12:00	46.4	102.2	1.5	123.7	45.6	96.1	0.9	97.4
2/24/2006 13:00	46.7	109	1.1	124	45.9	113.9	1.7	96.7
2/24/2006 14:00	53.8	115.3	1.4	123.9	45.5	108.3	1.7	99.9
2/24/2006 15:00	51.7	122.3	2.3	124.9	45.3	109.4	1.4	99.7
2/24/2006 16:00	55.1	172	4.8	132.5	51.8	118.7	3.1	113
2/24/2006 17:00	54.9	266.2	5.2	141.8	65.2	102.6	2.7	132.2
2/24/2006 18:00	56.2	338.1	5.2	147.4	66.6	83.2	0.6	127.3
2/24/2006 19:00	658.4	217.5	5.2	148.1	209.7	125.3	2.5	127.5
2/24/2006 20:00	59.4	109.9	5.2	145.3	523.8	98	2.2	136.1
2/24/2006 21:00	62.1	155.2	5.2	148	395.1	86.8	0.6	132.7
2/24/2006 22:00	62.9	110.9	5.2	147.8	177.5	106	0.9	122.9
2/24/2006 23:00	69.3	181.8	5.2	147.9	203.2	115.4	3	124.8
2/25/2006 0:00	62	155	5.2	148.1	124.4	113.6	2.8	125.5
2/25/2006 1:00	64.6	81.3	4.7	148	213.3	143.1	3.5	133.2
2/25/2006 2:00	66.6	107.6	4	147.9	211.1	89.9	2.9	125.9
2/25/2006 3:00	66	102.3	3.2	148.1	570.7	28.1	3.5	12.1
2/25/2006 4:00	67.1	116.7	3.6	148	0	1.2	3.2	0
2/25/2006 5:00	66.6	111.4	3.6	148	0	0.6	0	0
2/25/2006 6:00	64.5	111.3	3.6	148.1	0	0.5	0	0
2/25/2006 7:00	406.8	134.5	4.6	147.8	0	0.4	0	0
2/25/2006 8:00	231.2	80.3	3.2	148.1	0	0.3	0	0
2/25/2006 9:00	154.4	116.2	3.7	147.9	0	1.6	0	0
2/25/2006 10:00	66.7	89.5	1.9	148.1	0	4.2	0	0
2/25/2006 11:00	105.8	126.8	2.6	148	0	7.6	0	0
2/25/2006 12:00	63.6	119.4	3.7	148	363.6	49.6	0.7	49.8
2/25/2006 13:00	61.5	114.9	4	148.1	440.9	91.7	0.6	73.7
2/25/2006 14:00	59.1	117.8	4.9	148.2	44.1	184.7	1.6	78.8
2/25/2006 15:00	63.7	109.9	4.8	147.9	220	134.7	3.5	100.1
2/25/2006 16:00	139.9	97.8	3.9	148	86.9	98.4	3.2	127.9
2/25/2006 17:00	65.8	103.9	3	148	73.6	98.7	1.1	133.9
2/25/2006 18:00	64.2	111.1	2.8	142.6	60.4	100.4	1.5	117.1
2/25/2006 19:00	60.9	121.3	4	144.3	73.9	105.4	1.7	129.2
2/25/2006 20:00	118.8	98.4	3	147.2	67.7	104.2	0.7	125.3
2/25/2006 21:00	115.3	104.9	2.2	148.1	69.5	110.7	0.9	125
2/25/2006 22:00	75.8	113.6	2.2	148	68.8	111.2	1	125
2/25/2006 23:00	69.1	103.7	1.9	148.1	67.3	111.1	1	121.3
2/26/2006 0:00	71.9	97.5	0.8	147.9	63.7	112.1	1.5	120
2/26/2006 1:00	100.3	111.4	0.5	147.9	63.5	114.1	2.1	120
2/26/2006 2:00	64.8	112.3	1.1	145.4	75.3	107.6	2.2	132.5
2/26/2006 3:00	61.8	112.4	1	140.1	85.4	90.2	0.8	127
2/26/2006 4:00	58.1	116	1.3	137.3	175.6	100.5	0.7	130
2/26/2006 5:00	58.9	120.1	2.2	143.5	289.4	111.3	1	129.8
2/26/2006 6:00	315.7	101.2	1.5	149.8	241.7	104.7	1	125.8
2/26/2006 7:00	317.3	104.1	0.8	142.1	60.9	116.5	1.9	122.1
2/26/2006 8:00	482.3	111.7	1.1	131.4	61.8	107.8	2.3	122
2/26/2006 9:00	53.8	119.9	1.8	130	62.7	110.2	2	121.9
2/26/2006 10:00	53.6	117.3	2.2	130.1	64.6	114	2.4	122
2/26/2006 11:00	131.1	134.3	4.3	130.5	64.6	113.8	3.2	122
2/26/2006 12:00	147.5	126.8	5.2	134.7	66	122	3.4	121.9
2/26/2006 13:00	110	238.5	5.2	144.6	66.4	108.6	3.5	122.8
2/26/2006 14:00	58.7	196	5.2	149.8	67.4	146	3.5	125.9
2/26/2006 15:00	61.3	167.8	5.2	150.2	69.6	198.5	3.5	128.9
2/26/2006 16:00	60.6	132.4	4.2	143.6	88	122	3.5	130
2/26/2006 17:00	59.7	89.6	1.3	136	84.9	103	3.1	131.1
2/26/2006 18:00	47.1	126	2.1	126.5	78.6	109.1	2.6	133.9
2/26/2006 19:00	190	124	3.7	134.5	78.2	107.6	2.1	134.4
2/26/2006 20:00	53.5	108.7	3.8	136.4	76	107.1	1.4	134
2/26/2006 21:00	61.3	108.1	3.7	140.6	73.8	108.2	0.9	134.1

Date/Time	Kiln 1				Kiln 2			
	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed Rate (tph)	CO (ppm)	NOx (ppm)	Ammonia (gpm)	Kiln Feed rate (tph)
2/26/2006 22:00	58.9	105.6	2.8	143.7	72.6	105.2	0.7	132.2
2/26/2006 23:00	60.3	107	2.8	143.1	119.1	120.5	1.7	130
2/27/2006 0:00	58.1	106.5	2.1	139.8	70.3	104.3	1.8	129.9
2/27/2006 1:00	60.7	111.5	2.3	140	69	104.7	0.8	130
2/27/2006 2:00	59.4	104.7	1.6	139.9	71.4	109.2	0.8	129.9
2/27/2006 3:00	59	110	1.4	139.8	73.4	108.1	0.7	128.4
2/27/2006 4:00	57.9	114.4	1.6	136.7	70.1	112.5	1.1	127
2/27/2006 5:00	56.4	117.6	2.2	131.7	68.1	109.5	1.4	125.6
2/27/2006 6:00	53.3	135.6	4.5	130	71	116.4	2.1	125
2/27/2006 7:00	187	140.1	5.1	131.7	106.7	105.7	1.6	125
2/27/2006 8:00	192.6	217.8	5.1	131.9	72.1	120.8	3	125
2/27/2006 9:00	193	299.1	5.1	132.2	72.1	243.7	3.4	126.3
2/27/2006 10:00	57.6	335.7	5.1	139.2	159.7	267.4	3.4	133
2/27/2006 11:00	61.3	293.9	5.1	146.8	123.7	229.8	3.4	141.6
2/27/2006 12:00	69.6	222.8	5.2	150	118.8	86.5	1.3	137.3
2/27/2006 13:00	71.1	86.7	4.9	150.1	77.7	115.5	2.8	132.7
END								



**ATTACHMENT 3**

*Report in Confidential Cabinet*  
*Selective Non-Catalytic Reduction Testing* 

*At*

*Cemex Balcones*  
*New Braunfels, TX, USA*

Written By

Curtis Pepe  
Emissions Specialist

Peter Paone  
Process Engineer

Mark Leyrer  
Commissioning Engineer

May 6, 2005

**ATTCHMENT 4**

**EMISSIONS UNIT INFORMATION**

Section [1] of [9]

Cement Kiln No. 1

**C: EMISSION POINT (STACK/VENT) INFORMATION  
(Optional for unregulated emissions units.)****Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <b>No. 1 Kiln Stack</b>		2. Emission Point Type Code: <b>1</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <b>N/A</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <b>N/A</b>			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>150 feet</b>	7. Exit Diameter: <b>13.0 feet</b>	
8. Exit Temperature: <b>285°F</b>	9. Actual Volumetric Flow Rate: <b>315,000 acfm</b>	10. Water Vapor: <b>%</b>	
11. Maximum Dry Standard Flow Rate: <b>195,785 dscfm</b>		12. Nonstack Emission Point Height: <b>N/A feet</b>	
13. Emission Point UTM Coordinates... Zone: <b>17</b> East (km): <b>356.007</b> North (km): <b>3169.248</b>		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:			

**EMISSIONS UNIT INFORMATION**

Section [2] of [9]

Cement Kiln No. 2

**C. EMISSION POINT (STACK/VENT) INFORMATION**  
 (Optional for unregulated emissions units.)

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <b>No. 2 Kiln Stack</b>		2. Emission Point Type Code: <b>1</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <b>N/A</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <b>N/A</b>			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>105 feet</b>	7. Exit Diameter: <b>14.0 feet</b>	
8. Exit Temperature: <b>250°F</b>	9. Actual Volumetric Flow Rate: <b>315,000 acfm</b>	10. Water Vapor: <b>%</b>	
11. Maximum Dry Standard Flow Rate: <b>dscfm</b>		12. Nonstack Emission Point Height: <b>N/A feet</b>	
13. Emission Point UTM Coordinates... Zone: <b>17</b> East (km): <b>356.052</b> North (km): <b>3169.261</b>		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:			

**Sheplak, Scott**

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**From:** Nelson, Deborah  
**Sent:** Thursday, November 10, 2005 5:18 PM  
**To:** Sheplak, Scott  
**Cc:** Linero, Alvaro  
**Subject:** CEMEX

Scott,

I have a question concerning the CEMEX application and modeling.

1. The coordinates in the application for Kiln 1 and Kiln 2 are 356250 m E, 3168370 m N and 356300 m E, 3168380 m N respectively. In the modeling for Kiln 1 and Kiln 2, 356007 m E, 3169248 m N and 356052 m E, 3169261 m N is used. Please verify which coordinates are correct.

Thanks,

Debbie

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