

April 24, 1996

Received April 25, 1996 BAR- again

Mr. A. A. Linero, P.E. Administrator, New Source Review Section Florida Department of Environmental Protection 2600 Blair Stone Road Tallahassee, FL 32399-2400

Re: Buckeye Florida, Inc.

No. 4 Lime Kiln and Two Causticizing Lime Bins

1230001-04-AC; PSD-FL-232

Dear Mr. Linero:

The purpose of this correspondence is to present comments to the Department regarding the Technical Evaluation and Preliminary Determination (TE&PD) dated March 21, 1996, concerning the above referenced air construction permit for Buckeye Florida, Inc. (BKI). The comments are presented below, in the order in which they appear in the TE&PD.

#### TE&PD

- pg. 3- Table 1: This table should be titled "Maximum or Allowable Pollutant Emissions (TPY)". Table 1 does not show the "net" emissions; these are shown in Table 3. The narrative prior to Table 1 should be revised accordingly.
- pg. 4 Table 2: The figures in this table should be replaced with the figures from the revised actual emissions for 1994-1995, presented in the revised Table 2-1 of the application (faxed to FDEP on March 8). This table is attached for your convenience.
- pg. 4 Table 3: The figures in this table should be those presented in Table 3-3 of the application (attached). Table 3-3 reflects the 1994-1995 actual emissions as the PSD baseline.
- pg. 5 III. Summary of Emissions: Revise wording to reflect that there are no allowable emission limits for CO or VOC, but add TRS. Delete references to "gas turbine".
- pg. 6 MAXIMUM ALLOWABLE EMISSION LIMITS: Not all of the pollutants have allowable emission limits. Recommend rewording title to "MAXIMUM OR ALLOWABLE EMISSIONS".

Rename heading entitled "Standard" to "Basis".

pg. 11 - Table 4: Column heading entitled "Proposed Emission Rate" should be renamed "Net Emissions Increase", as these are the appropriate figures for comparing to the PSD significant emission rates. Also, the figures in this column should reflect the figures in Table 3-3 of the application (attached).



In addition to the above identified changes, additional changes may be necessary in the TE&PD based on comments on the specific conditions as described below.

#### Specific Condition 2

Limits for both lime mud input rate and lime product are not necessary. BKI suggests that the limit for lime mud input rate be deleted, and the limit for lime product be retained as this is the recorded production rate. Additionally, it would be simpler to have a single production rate for the lime bins. Since both purchased lime and lime from the lime kiln can be received into the bins at any one time, the maximum production rate would be the sum of the two individual rates, or 150,500 lb/hr. This change does not affect the maximum emissions for the bins, which are based on volume flow rate and a grain loading.

#### Specific Condition 3

It is repetitive to have both hourly and annual limitations on fuel burning rates since the annual rates are based on the hourly rates and 8,760 hr/yr. Therefore, it is requested that the annual rates be deleted.

#### Specific Condition 5

There does not appear to be a regulatory basis for setting emission limits for CO and beryllium. In the case of CO, it is not subject to BACT or any other emission limiting standard, and emissions of CO are not being synthetically limited to avoid PSD review.

Beryllium is a trace substance occurring in the purchased lime, and is emitted in extremely small quantities. Beryllium emissions are controlled by the PM control device and the PM limits. Therefore, it is not necessary to have an emission limit for beryllium. Beryllium is subject to BACT, but the definition of BACT does not require that an emission limitation be set. If the Department determines that technological or economic limitations on measurement methodology make setting of an emissions limit impractical, the Department may set a design, work practice, equipment or operational standard may be imposed instead. BKI considers testing for beryllium emissions to be unnecessary and economically prohibitive in this case. In addition BKI has test data for beryllium which indicates beryllium emissions much lower than the stated emission limit (see attached data). It is requested that the lime kiln ESP design and PM standard be a surrogate for beryllium emissions, and the beryllium emission limit be deleted.

Please note that the annual emission limit for TRS should read "11.58 TPY" instead of 11.68 TPY. Also, in regard to the heading entitled "Emission Standard", if the CO and Be limits are dropped, it should be footnoted that the factors for CO and Be are the "Basis for Emission Limit", and not emission standards.

#### Specific Conditions 7, 8, 9, 10 and 11

Each of these conditions relate to testing for the lime kiln, and not the lime bins or other source. Therefore, it is recommended that each condition include the phrase "lime kiln", so there is no mistake concerning the source to which the condition applies.

## Specific Condition 9

This condition requires annual testing for NOx emissions. Since the NOx emissions are based on an emission factor, and there is no control equipment for NOx, it is requested that this be a one time test to confirm the emission factor.



#### Specific Condition 10

BKI believes that annual Method 16 tests are not necessary since the lime kiln has a certified TRS CEM in place, and this CEM is used for compliance purposes. The current operating permit does not require a Method 16 test. Only initial compliance tests using Method 16 are required under the NSPS, 40 CFR 60.285. BKI will continue to use the TRS CEM for compliance purposes. Also, pg 5 of the TE&PD states that the TRS CEM will be used for compliance purposes.

## Specific Condition 11

Since it is requested that the beryllium emission limit be deleted, the test requirement for beryllium is also requested to be deleted.

#### Best Available Control Technology Evaluation

Consistent with the discussion above, it is requested that no emission limit be set for beryllium, but instead, an equipment design standard or surrogate parameter (PM) limit be set.

Thank you for consideration of these comments, and please call if you have any questions concerning this information.

Sincerely,

David A. Buff, P.E.

David a boff

Florida P. E. #19011

**SEAL** 

cc: Cecil Hance Bob Leetch

CC: EPA NPS O.Kirt, NED

DB/mlb

Table 2-1. Actual 1994-1995 Emissions from No. 4 Lime Kiln, Buckeye Florida, L.P. (Revised 3/8/96)

		Reference	Activit	Short-Term Hourly	ı Annual	
Pollutant	Emission Factor		Short-term (a)	Annual (b)	Emissions (lb/hr)	
Particulate (PM)	3.0 lb/hr	1		9 007 h-t		
Particulate (PM10)	3.0 lb/hr	1		8,087 hr/yr	3.0	12.1
Sulfur dioxide	1 lb/ton CaO	5	27 00 ton CaO//a	8,087 hr/yr	3.0	12.1
Nitrogen oxides	2.19 lb/ton CaO	5	27.08 ton CaO/hr	207,504 ton CaO/yr	27.08	103.75
Carbon monoxide	0.41 lb/ton CaO		27.08 ton CaO/hr	207,504 ton CaO/yr	59.31	227.2
VOC (c)		3	27.08 ton CaO/hr	207,504 ton CaO/yr	11.10	42.5
• •	0.236 lb C/ton CaO	5	27.08 ton CaO/hr	207,504 ton CaO/yr	6.39	24,49
Lead	0.0038 lb/ton CaO	6	27.08 ton CaO/hr	207,504 ton CaO/yr	0.10	0.39
Sulfuric acid mist	4.45 % of SO2	4			1.20	4.87
Total reduced sulfur	0.52 lb/hr	7	- <del>-</del> - <del>-</del>	8,087 hr/yr	0.52	2.10
Beryllium	1.7E-05 lb/ton CaO	6	27.08 ton CaO/hr	207,504 ton CaO/yr	4.6E-04	=
Mercury 	9.1E-06 lb/ton CaO	6	27.08 ton CaO/hr	207,504 ton CaO/yr	2.5E-04	0.0018 9.4E-04

## Footnotes

- (a) Short-term activity factor based on current permit limit of 650 TPD lime product.
- (b) Annual activity factor is an average of the production rate for the lime kiln in 1994 and 1995. (1995 rate based on first 9 months of 1995)
- (c) VOC factors are representative of wet scrubbers and could be conservative.

# References

- 1. Emission rates based on stack tests, 1994-1995.
- 2. AP-42, Table 1.1-5.
- 3. NCASI Bulletin No. 416, for lime kilns Table 6, pg. 30, maximum of average for any single kiln used.
- 4. AP-42 Table 1.3-2. SO3 is 3.6% of SO2. All of SO3 becomes sulfuric acid mist.
- 5. NCASI Bulletin No. 646, Tables 12-14, lime kilns, average factor used for NOx, SO2 and VOC.
- 6. NCASI Bulletin No. 650, for lime kilns with scrubbers; average factors used; ESP data not available.
- 7. Average value for TRS from continuous monitoring in 1994-1995.

Table 3-3. Net Emissions Increase from Lime Kiln Project, Buckeye Florida, L.P.

	Emissions		Net Increase	PSD Significant	PSD
Pollutant	Current Actual (TPY)	Future Maximum (TPY)	in Emissions (TPY)	Emission Rate (TPY)	Review Applies?
Particulate (PM)	12.1	87.6	75.5	25	YES
Particulate (PM10)	12.1	87.6	75.5 75.5	15	YES
Sulfur dioxide	103.8	136.9	33.1	40	NO
Nitrogen oxides	227.2	299.8	72.6	40	YES
Carbon monoxide	42.5	56.1	13.6	100	NO
VOC	24.5	32.3	7.8	40	NO
Lead	. 0.4	0.5	0.1	0.6	NO
Sulfuric acid mist	4.9	6.1	1.2	7	NO
Total reduced sulfur - Gas	2.10	11.58	9.5	10	NO
Beryllium	0.0018	0.0023	0.0005	0.0004	YES
Mercury	0.00094	0.0012	0.00031	0.1	NO

# Multiple Metals Test Data Buckeye Florida: No. Lime Kiln: 2/21/96

Metal	Emission Factor	Emission Factor	Emission Factor
ID	10 <sup>-3</sup> lb/MM lb CaO	lb/MM lb CaO	lb/ton CaO <sup>1</sup>
Antimony	0.72	7.20E-04	1.44E-06
Arsenic	0.72	7.20E-04	1.44E-06
Beryllium	0.37	3.70E-04	7.40E-07
Cadmium	0.93	9.30E-04	1.86E-06
Chromium	1.80	1.80E-03	3.60E-06
Cobalt	0.37	3.70E-04	7.40E-07
Lead	1,50	1.50E-03	3.00E+06
Manganese	4.00	4.00E-03	8.00E+06
Mercury	2.10	2.10E-03	4.20E-06
Nickel	3.70	3.70E-03	7.40E-06
Selenium	0.14	1.40E-04	2.80E-07
Total Metals	19.00	1.90E-02	3.80E-05
Phosphorous	88.00	8,80E-02	1.76E-04

## Footnote:

*1: IMM Pounds = 500 Tons* 

Example:  $(0.37 \times 10^{-3})$  lb/MM lb CaO x 1MM lb/500 Ton =  $(7.4 \times 10^{-7})$  lb/Ton CaO

Shaded values indicate a measured or average concentration which is equal to or greater than the analytical detection limit. *Unshaded values indicate a measured or average concentration which was below the detection limit or not detected*, and a value of 50 percent of the detection limit was used for calculation purposes.



Shaded values indicate a measured or average concentration which is equal to or greater than the analytical detection limit. Unshaded values indicate a measured or average concentration which was below the detection limit or not detected, and a value of 50 percent of the detection limit was used for calculation purposes.

Table 2-3

Multiple Metals Emission Data - No. 4 Lime Kiln

	Run 1	Run 2	Run 3	Mean
Date	2/21/96	2/21/96	2/21/96	
Time Began	1020	1223	1419	
Time Ended	- 1129	1329	1525	
Stack Gas Data		,		
Temperature, °F	429	419	418	422
Velocity, ft/sec	35	35	36	35
Moisture, %	34	34	34	34
CO₂ Concentration, %	19.0	18.7	19.8	19.2
O <sub>2</sub> Concentration, %	5.6	6.3	5.4	5.8
VFR, x 10⁴ dscfm	3.4	3.4	3.5	3.4
Lime Production Rate, ton CaO/day	648	644	644	645
Emission Factor, x 10 <sup>-3</sup> lb/MM lb CaO				
Antimony	0.70	0.72	0.72	0.72
Arsenic	0.70	0.72	0.72	0.72
Beryllium	0.36	0.37	0.37	0.37
Cadmium	2.0	0.37	0.37	0.93
Chromium	3.2	1.2	1.2	1.8
Cobalt	0.36	0.37	0.37	0.37
Lead	1.8	1.f	1.6	1.5
Manganese	6.6	2.3	3.0	4.0
Mercury	2.1	2.1	2.1	2.1
Nickel	7.5	2.1	1.4	3.7
Selenium	0.36	0.04	0.04	0.14
Total Metals	32	12	12	19
Phosphorus	102	116	46	88



#### **SECTION 3**

#### SOURCE TESTING METHODOLOGY

This section describes the procedures used to collect and analyze samples from stationary emission sources. The emission testing program was conducted in accordance with the methodology summarized in Table 3-1.

Table 3-1
Source Testing Methodology

		Appendix Reference			
Parameter	Method Number <sup>a</sup>	Method Description <sup>b</sup>	Quality Control Data <sup>c</sup>	Comments <sup>d</sup>	
Volumetric Flow Rate	1,2,3,4	B.1			
Multiple Metals	29	B.2		Draft Note 1 - Note 5	

<sup>\*</sup>Methods are USEPA Reference Methods unless otherwise noted.

The methodology was strictly followed with the exception of the following deviations.

- 1. Impingers containing potassium permanganate solution for the collection of elemental mercury vapor, were not included in the sampling system. Method 29 (Draft) was adopted from a BIF Method for hazardous waste incinerators where elemental mercury may have been present in the waste material. A review of previous test data, knowledge of the pulp and paper process and the potential for manganese contamination of the sample indicates that the emission of the potassium permanganate would not compromise the quality of the mercury test performed on the filter and impinger fractions of the sampling train only.
- 2. Sample recovery procedures and sample fraction analysis were modified to reduce the number of sample fraction analyses. Analysis of the samples was performed using ICP/MS to achieve greater sensitivity and reduced sample matrix interference.
- 3. Modification of the sample fractions compromised the blank correction procedure indicated by the method. The reported test data have been corrected for the measured

<sup>&</sup>lt;sup>b</sup>Detailed method descriptions provided in the referenced appendix.

Quality assurance data included in the referenced appendix.

<sup>&</sup>lt;sup>d</sup>Deviations described in the paragraphs following this table.



concentrations found in the blank sample. The blank sample was comprised of a filter, reagents, and rinsate equivalent to the components used for each sample. In cases where a non-detect have been reported for an analyte in the blank sample, no correction has been made to the test data.

- 4. Particulate matter analysis was performed for each sample as indicated in the method.
- 5. In all cases, values at the limit of detection have been identified and an assigned value of 50% of the detection limit used for reporting and calculation purposes.



# APPENDIX B

# TEST METHODOLOGY

- B.1 Volumetric Flow
- **B.2** Multiple Metals

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Printed: 29 March 1996



## **B.1** VOLUMETRIC FLOW RATE

Mass emission rates are calculated by multiplying measured target analyte concentrations by calculated volumetric flow rates. Volumetric flow rates are calculated using measurement data obtained by EPA Reference Methods 1-4.

The ductwork is measured at the sample location to the nearest 0.25 inch using a steel tape measure. Traverse points are selected in accordance with EPA Reference Method 1 on the basis of ductwork dimensions, geometry, and upstream and downstream disturbances. When a sample location does not meet EPA Reference Method 1 criteria, the maximum recommended number of traverse points are used.

## **Gas Velocity**

The velocity of the gas stream is measured in accordance with EPA Reference Method 2 by reading the instantaneous velocity pressure with an inclined manometer at each traverse point using either a standard "P" type or an "S" type pitot tube. The stack pressure is calculated from the measured static pressure of the stack and the ambient barometric pressure. The static pressure is measured by using the static side of the pitot tube, and the barometric pressure is measured using a calibrated aneroid barometer. Magnahelic, gauges with scales of 0 to 5 and 0 to 25 inches of water or an inclined manometer with a scale of 0 to 10 inches of water are used for velocity pressure measurements. Manometer selection is determined by the velocity pressure of the gas stream. A manometer with a 0 to 0.25 inch scale may be used when the velocity pressure of the gas stream is less than 0.02 inches of water. By convention, any measured velocity pressures of less than 0.005 inches of water are recorded and reported as less than 0.005 inches of water. The stack temperature is measured with a calibrated thermocouple and pyrometer.

For low velocity pressure measurements (less than 0.005 inches of water) a hot wire anemometer may be used to measure the velocity of the gas stream. The indicated velocity is used without correction when the gas stream is ambient air with a moisture content of less than 65 percent. The indicated velocity is corrected in accordance with procedures specified by the manufacturer when



the moisture content exceeds 65 percent or when the dry gas fraction is something other than ambient air.

#### Gas Composition and Moisture Content

The composition of the gas stream is measured in accordance with EPA Reference Method 3 using an Orsat or Fyrite Combustion Gas Analyzer. Gas composition determinations are conducted using either integrated or grab sampling techniques.

Grab samples are analyzed using a Fyrite analyzer by withdrawing a gas sample from the source and introducing the sample directly to a zeroed oxygen or carbon dioxide combustion gas analyzer. After introduction of the gas sample, the analyzer is inverted the prescribed number of times and the analyzer fluid level is recorded giving a percent by volume determination of the oxygen or carbon dioxide concentrations.

Integrated samples are collected by withdrawing a sample from the source through a moisture condenser into a Tedlar<sub>®</sub> sample bag. The bag is then analyzed using an Orsat analyzer.

The moisture content of the gas stream is determined using one of the following procedures:

- For sources requiring testing by EPA Reference or Test Methods 5, 8, 12, 13, 17, 23, 26A, 29, 0010, or 0011, moisture is determined by EPA Reference Method 4. At the conclusion of each run the volume of condensed moisture in the impingers of the sampling train is measured and used to calculate the moisture content of the gas stream.
- For sources with temperatures greater than 212°F, the approximation technique described in EPA Reference Method 4 may be used with midget impingers to condense moisture before dry gas volume measurement.
- For sources with a temperature of less than 212°F, wet bulb/dry bulb temperature
  measurements may be made, and the moisture content calculated using vapor
  pressure tables.

When multiple methods are used for moisture determinations, the lowest moisture value is used for volumetric flow calculations.



The molecular weight of the gas stream is calculated using the measured moisture, oxygen, and carbon dioxide concentrations. The balance of the gas stream is assumed to be nitrogen. The volumetric flow is then calculated at stack and standard conditions using the calculated molecular weight, the measured stack temperature, and measured velocity, stack and barometric pressures. Standard conditions are 68°F and 29.92 inches of mercury and zero percent moisture.

# **Data Acquisition and Reporting**

Data are recorded at the time of collection on preprinted data sheets. Calculations are performed (where possible) with preprogrammed calculators or spreadsheet software.

# **Quality Control**

Quality control procedures for volumetric flow measurements involve leak checks of pitot tubes, pitot tube lines and manometers; periodic analysis of ambient air and duplicate analysis of source gas samples with the Fyrite analyzer; triplicate analysis with the Orsat analyzer; and periodic calibration checks of thermocouples and pyrometers.

Data transfers are minimized. Data sheets are checked for completeness and accuracy. Calculations are verified by a second person.

Printed: 29 March 1996



# **B.2** MULTIPLE METALS

Sampling for metals emission is conducted according to EPA Reference Method 29.

# Sampling Equipment and Procedures

Figure B-1 shows a schematic of the Method 29 multiple metals sampling train. The sampling train consists of a glass nozzle, heated glass probe liner, and glass filter holder containing a quartz fiber filter. The outlet of the filter holder is connected to the first impinger which is a short-stemmed moisture knockout. The second and third impingers contain 100 mL of a nitric acid/hydrogen peroxide solution. The fourth impinger is empty and, if mercury is determined, the fifth and sixth impingers are added and contain a potassium permanganate solution. The last impinger contains 200 to 300 grams of preweighed indicating silica gel.

Sampling is conducted isokinetically (according to EPA Reference Method 5). The sampling points are selected in accordance with EPA Reference Method 1. An S-type pitot tube is connected to the sample probe so that an instantaneous velocity head is measured at each sampling point during each test run. The stack temperature is also measured at each point. The sampling rate is adjusted at each point, based on velocity, to ensure isokinetic sample collection.

Cleanup procedures for EPA Reference Method 29 are initiated as soon as the post test leak check is complete. The probe is allowed to cool prior to sample recovery. When it can be safely handled, the tip of the probe nozzle is wiped and rinsed. A non-contaminating cap is placed over the probe nozzle to prevent losing or gaining particulate matter. A schematic of the multiple metals sample recovery process is shown in Figure B-2.

Before moving the sampling train to the cleanup site, the probe is removed from the sampling train. Care is taken not to lose any condensate that might have been present. The filter holder inlet and outlet is capped, as are the impinger train inlet and outlet. Plastic caps, serum caps, or Teflon tape is used to close these openings.

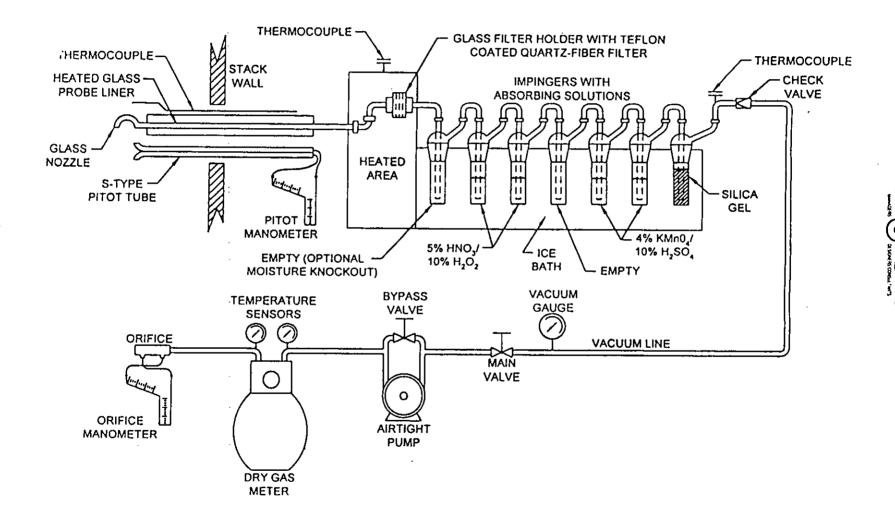
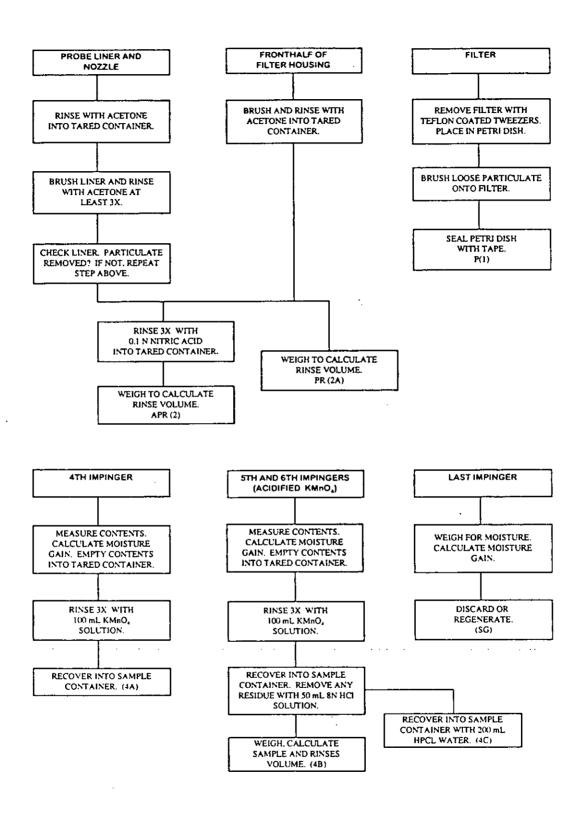


Figure B-1 EPA Reference Method 29 Sampling Train





EMQMETHODS/AQCHARTS PPT 1/17/96

Figure B-2 Sample Recovery Procedures For EPA Reference Method 29 Sampling Train



Container No. 1 (Filter): Care is taken to remove the filter holder and place it in its identified petri dish container. Care is taken to transfer the filter and any particulate matter or filter fibers that adhere to the filter holder gasket to the petri dish by using a dry (acid-cleaned) nylon bristle brush.

Container No. 2 (Acid Probe Rinse) and 2A (Acetone Probe Rinse): The probe nozzle, fitting and probe liner, and front half of the filter holder are brushed and rinsed at least six times with a total of 100 mL of 0.1 N nitric acid. The rinse is placed into a sample storage container. The volume of the combined rinses are recorded and the container is sealed and clearly labeled. If particulate matter is determined, the acid rinse is preceded by an acetone washing of the probe, nozzle, and front half of filter holder.

Container No. 3 (Impingers 1 through 3, HNO<sub>3</sub>/H<sub>2</sub>O<sub>2</sub> Impingers and Moisture Knockout Impinger, when used, Contents and Rinses): The liquid in the first three impingers is measured volumetrically to within 1.0 mL using a graduated cylinder. The volume of liquid present is recorded. Each of the first three impingers, the filter support, the back half of the filter housing, and connecting glassware are cleaned by thoroughly rinsing with 100 mL of 0.1 nitric acid. The rinses and impinger solutions are measured and the volume recorded. The container is sealed and clearly labeled.

Container Nos. 4A (0.1 N HNO<sub>3</sub>), 4B (KMnO<sub>4</sub>/H<sub>2</sub>SO<sub>4</sub> absorbing solution), and 4C (8 N HCl rinse and dilution): All of the liquid, if any, from the impinger which is empty at the start of the run and immediately precedes the two permanganate impingers is transferred into a graduated cylinder to measure the volume to within 1.0 mL. The liquid is placed in sample Container No. 4A. The impinger is rinsed with 100 mL of 0.1 N HNO<sub>3</sub>. This rinse is placed into Container No. 4A.

The liquid from the two permanganate impingers is transferred into a graduated cylinder to measure the volume to within 1.0 mL. The KMnO<sub>4</sub> absorbing solution from the stack sample is transferred from the two permanganate impingers into Container No. 4B. 100 mL of fresh acidified potassium permanganate solution is used to rinse the two permanganate impingers and connecting glass pieces a minimum of three times and the rinses are placed into Container No. 4B. 100 mL of water is used to rinse the permanganate impingers and connecting glass pieces a minimum of three times, and the rinses are placed into Container No. 4B.



If no visible deposits remain after the above-described water rinse, the impingers are rinsed with 8 N HCl. However, if deposits are observed on the glassware after this water rinse, the impinger surfaces are washed with a total of only 25 mL of 8 N HCl for both permanganate impingers combined. The first impinger is rinsed. The actual rinse for the first impinger is then poured into the second impinger and rinsed. 200 mL of water is placed in Container No. 4C. The contents of the 25 mL of 8 N HCl rinse are transferred carefully with stirring into Container No. 4C.

Silica Gel: The color of the indicating silica gel is observed to determine whether it had been completely spent and a notation made of its condition. The weight of the spent silica gel (or silica gel plus impinger) is recorded to the nearest 1.0 g and is either discarded or regenerated.

Container No. 5A (0.1 N Nitric Acid blank) and 5B (water blank): During the field test, 300 mL of 0.1 N nitric acid solution that is used in the sample recovery process is placed into a labeled container for use in the front half and back half field reagent blanks. During the field test, 100 mL of the water that is used in the sample recovery process is placed into a labeled Container No. 5B.

Container No. 6 (5% Nitric Acid/10% Hydrogen Peroxide Blank): During the field test, 200 mL of the 5% nitric acid/10% hydrogen peroxide solution used as the nitric acid impinger reagent is placed into a labeled container for use in the back half field reagent blank.

Container No. 7 (Acidified Potassium Permanganate Blank): During the field test, 100 mL of the acidified potassium permanganate solution used as the impinger solution and in the sample recovery process is placed into a labeled container for use in the back half field reagent blank for mercury analysis.

Container No. 8 (8 N HCl Blank): During the field test, 200 mL of water is placed into a sample container and 25 mL of 8 N HCl is carefully added by stirring the solution into the 200 mL of water in the container.

Container No. 9 (Filter Blank): During the field test, an unused blank filter from the same lot as the sampling filters is placed in a labeled petri dish.



## Sample Analysis

The prescribed sample preparation and analysis scheme for multiple metals is shown in Figure B-3. The first two samples, labeled Fractions 1A and 1B, consist of the digested samples from the front half of the train. Fraction 1A is for ICAP or AAS analysis. Fraction 1B is for determination of front half mercury.

The back half of the train is used to prepare the third through seventh samples. The third and fourth samples, labeled Fractions 2A and 2B, contain the digested samples from the moisture knockout, if used, and HNO<sub>3</sub>/H<sub>2</sub>O<sub>2</sub> Impingers 1 through 3. Fraction 2A is for ICAP or AAS analysis. Fraction 2B is analyzed for mercury.

## Data Acquisition and Reduction

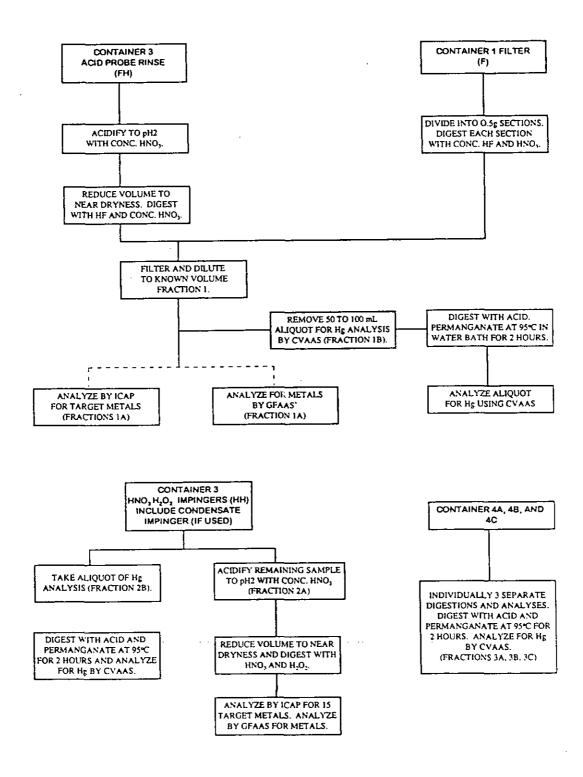
Data is recorded at the time of collection on preprinted data sheets. Calculations are performed (where possible) with preprogrammed calculators or spreadsheet software.

Prior to and following each run and port change, the sampling train is leak checked; the leak rate should not exceed the lesser of 0.02 actual cubic feet per minute (acfm) or 4% of the actual sampling rate. If a final leak rate does not meet the acceptance criterion, the test run may still be acceptable. If this is the case, the measured leak rate is reduced by the allowable leak rate and then multiplied by the period of time over which the leak occurred. This "leak volume" will be subtracted from the measured gas volume in calculating the emission results. This corrective action is noted in any reporting. Isokinetic sampling is maintained at  $100\% \pm 10\%$ .

Analyses are performed for each metal on a blank, a spike, a quality control sample, and a duplicate. Any spikes that produce results with less than 80 or greater than 120% recovery are rejected.

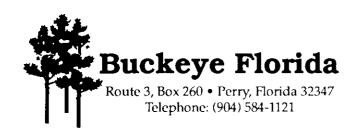
Data transfers are minimized. Field and laboratory data sheets are checked for completeness and accuracy. Calculations are verified by a second person.





1.MQMETHODSMQCHARTS.PPT 1/17/96

Figure B-3 Sample Preparation And Analysis Scheme For EPA Reference Method 29



# RECEIVED

APR 1 2 1996

**BUREAU OF AIR REGULATION** 

11 April 1996

Mr. Alvaro A. Linero, PE Administrator, New Source Review Section Division of Air Resources Management Florida Department of Environmental Protection 2600 Blair Stone Road Tallahassee, FL 32399-2400

RE: Foley Mill - Buckeye Florida, LP

No. 4 Lime Kiln & Causticizing Lime Bins

1230001-04-AC PSD-FL-232

Dear Mr. Linero,

We received the Preliminary Determination, draft BACT determination and draft permit for our #4 Lime Kiln and Two Causticizing Lime Bins on March 27, 1996.

There are several items which we would like to review with your office prior to publishing the "Notice of Intent". Mr. Ed Svec and I have discussed our desire to address these items prior to publication of the "Notice"

As a result, we are requesting a 45 day extension by which we would publish the "Notice of Intent". This extension would allow us time to meet with you and allow the Department time to respond to our comments.

We would like to meet with you and/or Ed Svec April 25 or April 26 at your office. Please advise us if you are available either of these two days.

I will be out of the office April 15-19. However, I will be checking for messages on a daily basis. So, please give me a call @ 904-584-1339 and leave a message. I will return your call and arrange our meeting time as soon as possible.

Thank you.

Sincerely, Cocile Depote Hence

Cecile Nepote Hance

Environmental Technology Leader

Buckeye Florida, LP

Ed Svec - FDEP CC:

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