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PS Form 3800, March 1993

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Perry, FL	
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1230001-04-AC	

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- 2. Restricted Delivery

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3. Article Addressed to:
 C.S. Aiken, Plant Mgr
 Buckeye Fla, LP
 Route 3, Box 260
 Perry, FL 32347

4a. Article Number
Z 127 633 195

4b. Service Type

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7. Date of Delivery
3/27/96

5. Signature (Addressee)

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6. Signature (Agent)
A Moore

Thank you for using Return Receipt Service



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

March 21, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. C. S. Aiken, Plant Manager
Buckeye Florida, Limited Partnership
Route 3, Box 260
Perry, Florida 32347

Re: Foley Mill
No. 4 Lime Kiln and Two Causticizing
Lime Bins - 1230001-04-AC and PSD-FL-232

Dear Mr. Aiken:

Enclosed is one copy of the Preliminary Determination, draft BACT determination and draft Air Construction Permit for the proposed increased production rate for the No. 4 Lime Kiln and two (2) Causticizing Lime Bins located at the Buckeye Florida, Limited Partnership Foley Mill, Route 3, Box 260, Perry, Florida 32347, Taylor County. The Department's Intent to Issue Air Construction Permit and the "Public Notice" are also included. The "Public Notice" must be published within 30 days of receipt of this letter.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above address. If you have any questions, please contact Edward Svec at (904)488-1344.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/es/t

Enclosures

cc: J. Harper, EPA
J. Bunyak, NPS
C. Kirts, NED

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

Permit No.: 1230001-04-AC
PSD-FL-232
Taylor County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Buckeye Florida, Limited Partnership, Route 3, Box 260, Perry, Taylor County, Florida 32347 for the increase to the production rate of the No. 4 Lime Kiln and the change in throughput rate of two Causticizing Lime Bins. Pollution control equipment includes an existing electrostatic precipitator for the control of particulate matter and beryllium emissions from the kiln, an existing baghouse filter for control of particulate matter from the storage bins and good combustion practices for the control of nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC) and total reduced sulfur (TRS).

A Best Achievable Control Technology (BACT) determination was required for emissions of particulate matter (PM and PM₁₀), nitrogen oxides (NO_x), and beryllium (Be) pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD).

Emissions of these pollutants shall not exceed the following limits:

<u>Pollutant</u>	<u>Maximum Emission Limit (Tons Per Year)</u>
PM	87.6
PM ₁₀	87.6
NO _x	299.8
Be	0.0023

An air quality impact analysis was conducted. Emission increases from the modification will not consume PSD increment and will not cause a violation of any state or federal ambient air quality standards.

Any person whose substantial interests are affected by this proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 within 14 (fourteen) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information; (a) The name, address, and the telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of facts which petitioner contends warrants reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and, (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice, in the Office of General Counsel, at the above address, of the Department. Failure to petition within the allotted time frame constitutes a waiver of any rights such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, Florida Administrative Code.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Department of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7577

Any person may send written comments on the proposed agency action to Administrator, New Source Review at the Department of Environmental Protection, Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. All comments received within 30 days of the publication of this notice will be considered in the Department's final determination.

Further, a public hearing can be requested by any person(s). Such requests must be submitted within 30 days of this notice.

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

In the Matter of an
Application for Permit by:

Mr. C. S. Aiken
Plant Manager
Buckeye Florida, Limited Partnership
Foley Mill
Route 3, Box 260
Perry, Florida 32347

DRAFT Permit No.: 1230001-04-AC
PSD-FL-232
Taylor County

INTENT TO ISSUE

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of DRAFT Permit enclosed) for the source detailed in the application specified above, for the reasons stated below.

The applicant, Buckeye Florida, Limited Partnership, applied on January 12, 1996 to the Department for a permit to construct for an increase in the permitted production rate from 650 tons per day to 750 tons per day of the No. 4 Lime Kiln and the associated change in throughput at two Causticizing Lime Bins located at the Foley Mill, Route 3, Box 260, Perry, Taylor County, Florida 32347.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The source is not exempt from permitting procedures. The Department has determined that an air construction permit is required at the described facility.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.0872, F.S., and Rules 62-103.150 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "Public Notice." The notice shall be published one time only within 30 (thirty) days in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area

that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit, with the attached conditions of the permit unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S. received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

Any person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000. Petitions filed by the permit applicant and the parties listed below must be filed within 14 (fourteen) days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of the receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The petition shall contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the proposed source will operate; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of facts which the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above, and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any

subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**



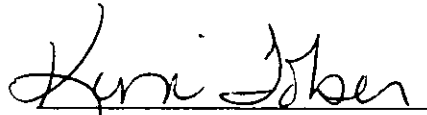
C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(904)488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this **INTENT TO ISSUE** and all copies were mailed before the close of business on 3-25-96 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,
on this date, pursuant to Section 120.
§52(11), F.S., with the designated
Department Clerk, receipt of which is
hereby acknowledged.

 3-25-96
(Clerk) (Date)

Copies furnished to:

J. Harper, EPA
J. Bunyak, NPS
C. Kirts, NED

Technical Evaluation
and
Preliminary Determination

Buckeye Florida, Limited Partnership
Taylor County
Perry, Florida

Construction Permit Number
1230001-04-AC
PSD-FL-232

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

March 21, 1996

I. Application

A. Applicant and Address

Buckeye Florida, Limited Partnership
Foley Mill
Route 3, Box 260
Perry, Florida 32347

B. Project and Location

The applicant intends to increase the production rate of their No. 4 Lime Kiln from 650 tons per day to 750 tons per day at the Foley Mill in Perry, Taylor County, Florida. The increase in production rate will allow the processing of additional lime mud from the water treatment plant and reduce the amount of purchased lime. There will be no increase in the production of pulp associated with this request. However, because of this change, there will be a change in the permitted throughput of two Causticizing Lime Bins. The UTM coordinates of the project are Zone 17, 256.7 km East and 3328.7 km North.

C. Process and Controls

The No. 4 Lime Kiln converts lime mud (CaCO_3) to lime (CaO). The lime product produced in the kiln is stored in the two lime bins. Purchased lime can also be received and stored in the two bins. The No. 4 Lime Kiln is permitted to burn natural gas and No. 6 fuel oil. Particulate matter emissions from the lime kiln are controlled by an existing electrostatic precipitator. The bins utilize a baghouse filter to control particulate matter generated from the transfer of lime.

The existing lime kiln currently operates at a maximum fuel firing rate of 170,000 cubic feet per hour of natural gas or 1,214 gallons per hour of No. 6 fuel oil. The maximum heat input rate needed to produce the 750 tons per day of lime is 210 million Btu per hour. This equates to a maximum fuel firing rate of 201,923 cubic feet per hour of natural gas or 1,400 gallons per hour of No. 6 fuel oil. A new burner will be installed on the lime kiln to accommodate these higher fuel flows.

Other process units at the facility will not be affected due to this increased production capacity. The increased lime production will offset purchased lime amounts. The plant water treatment system uses approximately 100 tons per day of lime which is mostly lost to the system. The increased lime kiln production capacity will allow the plant to recover and re-process up to 100% of this water treatment lime on a continuous basis. There will be no increase in the total lime throughput of the lime storage bins. The amount of recovered lime will increase and the amount of purchased lime will decrease.

The proposed increase in production rate will result in an emissions increase of total suspended particulate matter (PM), particulate matter with an aerodynamic diameter of less than or equal to 10 micrometers (PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), total reduced sulfur (TRS), lead (Pb), sulfuric acid mist (SAM), beryllium (Be), and mercury (Hg).

D. SIC and SCC

1. The Standard Industrial Code is:

- o 2611: Pulp Mill

2. The Source Classification Code is:

- o Sulfate Kraft Pulping 3-07-001-99 Tons Air-Dried Unbleached Pulp Produced

II. Rule Applicability

The proposed project is subject to preconstruction review in accordance with Chapter 403, Florida Statutes, Florida Administrative Code (F.A.C.) Chapters 62-210, 62-212, and 62-296 and 40 CFR (July 1994 version).

The application package was deemed complete on January 12, 1996.

The facility is located in Taylor County which is an area designated as attainment for all pollutants pursuant to F.A.C. Rule 62-275.400

The following table exhibits the net potential / allowable pollutant emissions from the proposed project in tons per year (TPY) at a production rate of 750 tons per day:

Table 1

Net Potential / Allowable Pollutant Emissions (TPY)

Source	PM	PM ₁₀	SO ₂	NO _x	CO	VOC	Pb	SAM	TRS	Be	Hg
Kiln	87.6	87.6	136.9	299.8	56.1	32.3	0.5	6.1	11.8	0.0023	0.0012
Bins	1.5	1.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

The following table exhibits the actual 1993 to 1994 emissions in tons per year at a production rate of 650 tons per day:

Table 2

Actual 1993 to 1994 Pollutant Emissions (TPY)

Source	PM	PM ₁₀	SO ₂	NO _x	CO	VOC	Pb	SAM	TRS	Be	Hg
Kiln	3.7	3.7	98.01	214.7	40.2	23.13	0.37	4.81	2.55	0.0017	0.0009
Bins	1.5	1.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

The following table exhibits the Net Increase of emissions in tons per year following the increase in production rate to 750 tons per day:

Table 3

Net Emissions Increase (TPY)

Source	PM	PM ₁₀	SO ₂	NO _x	CO	VOC	Pb	SAM	TRS	Be	Hg
Kiln	83.9	83.9	39.89	85.1	15.9	9.17	0.13	1.29	9.03	0.0006	0.0003
Bins	0.0	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

The existing facility is a major facility (emits 100 tons per year or more of any pollutant), the facility category is listed in Table 212.400-1 Major Facility Categories and will constitute a major modification at a major facility because the modification results in significant net emission increases for the pollutants PM, PM₁₀, NO_x, and Be. This subjects the project to PSD Preconstruction Review for these pollutants pursuant to F.A.C. Rule 62-212.400. A determination of Best Available Control Technology (BACT) is required for the pollutants with significant net emission increases pursuant to F.A.C. Rule 62-212(5).

40 CFR 60.280 Subpart BB Standards of Performance for Kraft Pulp Mills, adopted by reference in F.A.C. Rule 62-296.800, applies to the proposed production increase because it constitutes a modification to an affected facility, a lime kiln, at a kraft pulp mill. The NSPS limits the emissions of particulate matter to 0.067 gr/dscf corrected to 10 percent oxygen when gaseous fossil fuel is burned and 0.13 gr/dscf corrected to 10 percent oxygen when liquid fossil fuel is burned. Because particulate matter emissions will increase above the 25 tons net significant increase threshold, particulate matter emission limits will be determined by an application of BACT. Additionally, TRS emissions are limited to 8 ppm by volume on a dry basis, corrected to 10 percent oxygen.

EPA Method 5 shall be used to determine compliance with the particulate matter standards with the oxygen concentration used for emission rate correction determined using EPA Method 3B pursuant to F.A.C. Rule 62-297 and 40 CFR 60, Appendix A.

Compliance with the TRS standard will be determined using a continuous monitoring system which meets the requirements of 40 CFR 60.284(a)(2).

Initial and annual nitrogen oxide emissions compliance tests shall be conducted using EPA Method 7 or 7E as requested by the applicant and pursuant to F.A.C. Rule 62-297 and 40 CFR 60, Appendix A.

Visible emissions from the lime kiln shall be less than 20% opacity, pursuant to F.A.C. Rule 62-296.310(2)(a). Initial and annual compliance tests shall be conducted using EPA Method 9 pursuant to F.A.C. Rule 62-297 and 40 CFR 60, Appendix A.

Visible emissions from the lime storage bins shall be less than 5% opacity. Because the emission unit has the potential to emit less than 100 tons per year and is controlled with a baghouse, particulate matter test requirements are waived pursuant to F.A.C. Rule 62-297.620(4). Initial and annual compliance tests shall be conducted using EPA Method 9 pursuant to F.A.C. Rule 62-297 and 40 CFR 60, Appendix A.

The proposed project is subject to the provisions of F.A.C. Rules 62-210.650: Circumvention and 62-210.700: Excess Emissions.

III. Summary of Emissions

The proposed project will have allowable emission limits and standards for the pollutants PM, NO_x, CO, VOC, SO₂, and PM₁₀. The maximum allowable emissions from the proposed gas turbine shall not exceed the following limits except during periods of startup, shutdown and malfunction pursuant to F.A.C. Rule 62-210.700. The emission limits are based on the applicant's request and vendor specifications provided to the Department.

MAXIMUM ALLOWABLE EMISSION LIMITS
LIME KILN

<u>Pollutant</u>	<u>Standard</u>	<u>Lbs/Hr</u>	<u>TPY</u>
PM	0.0451 gr/dscf @ 10% oxygen; visible emissions shall not exceed 10% opacity	20.00	87.6
PM ₁₀	0.0451 gr/dscf @ 10% oxygen; visible emissions shall not exceed 10% opacity	20.00	87.6
SO ₂	1.0 lb/ton CaO, NCASI Bltn No. 646	31.25	136.9
NO _x	2.19 lb/ton CaO, NCASI Bltn No. 646	68.44	299.8
CO	0.41 lb/ton CaO, NCASI Bltn No. 416	12.81	56.1
VOC	0.236 lb/ton CaO, NCASI Bltn No. 646	7.38	32.3
Pb	0.0038 lb/ton CaO, NCASI Bltn No. 650	0.12	0.5
SAM	4.45% of SO ₂ , AP-42 Table 1.3-2	1.39	6.1
TRS	7 ppmvd @ 10% oxygen	2.64	11.58
Be	1.7E-05 lb/ton CaO, NCASI Bltn No. 650	5.3E-04	0.0023
Hg	9.1E-06 lb/ton CaO, NCASI Bltn No. 650	2.8E-04	0.0012

MAXIMUM ALLOWABLE EMISSION LIMITS
LIME STORAGE BINS

<u>Pollutant</u>	<u>Standard</u>	<u>Lbs/Hr</u>	<u>TPY</u>
PM	Visible emissions shall not exceed 5% opacity	0.343	1.5
PM ₁₀	Visible emissions shall not exceed 5% opacity	0.343	1.5

IV. Air Quality Analysis

1. Introduction

The proposed project is located in an attainment area for all regulated pollutants, and will emit three pollutants at levels in excess of PSD significant amounts as shown in Table 4. These pollutants are the criteria pollutants PM/PM₁₀, NO_x, and the non-criteria pollutant beryllium (Be)

The air quality impact analyses required by the PSD regulations for these pollutants include:

- * An analysis of existing air quality;
- * A significant impacts analysis;
- * A PSD increment analysis (PM₁₀ and NO₂);
- * An Ambient Air Quality Standards (AAQS) analysis;
- * An analysis of impacts on soils, vegetation, and visibility and of growth-related air quality modeling impacts; and,
- * A "Good Engineering Practice" (GEP) stack height determination.

The analysis of existing air quality generally relies on preconstruction monitoring data collected with EPA-approved methods. The significant impact analysis, PSD increment and AAQS analyses depend on air quality dispersion modeling carried out in accordance with EPA guidelines.

Based on the required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of any AAQS or PSD increment. A discussion of the modeling procedure and required analyses follows.

B. Analysis of Existing Air Quality

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review. However, an exemption to the monitoring requirement can be obtained if the maximum air quality impact resulting from the projected emissions increase, as determined by air quality modeling, is less than a pollutant-specific de minimus concentration. Table 5 shows that maximum projected air quality impacts due to the project are predicted to be less than the applicable de minimus levels; therefore, no preconstruction air quality monitoring is required for this project.

C. Modeling Procedure

The EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model was used to evaluate the pollutant emissions from the proposed project and other existing major facilities. The model determines ground-level concentrations at user-specified receptors of inert

gases or small particles emitted into the atmosphere by point, area and volume sources. The model incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. The ISCST3 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options in each modeling scenario. Direction-specific downwash parameters were used for all sources for which downwash was considered.

Meteorological data used in the ISCST3 model to determine air quality impacts consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) stations at Tallahassee, Florida (surface data) and Waycross, Georgia (upper air data). The 5-year period of meteorological data was from 1982 through 1986. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover and cloud ceiling.

Since five years of data were used in ISCST3, the highest-second-high (HSH) short-term predicted concentrations were compared with the appropriate AAQS or PSD increments. For the annual averages, the highest predicted yearly average was compared with the standards. For determining the significant impact area (SIA) and impacts on the Class I areas, both the highest short-term predicted concentrations and the highest predicted yearly averages were compared to their respective significant impact levels.

D. Significant Impact Analysis

Initially, the applicant conducted preliminary modeling using only the proposed project's emissions for the criteria pollutants PM₁₀ and NO₂. This modeling was done to determine if the project was predicted to have a significant impact from either of these pollutants and to determine the SIA. For the AAQS and PSD Class II increment analyses, receptor grids are based on the size of the SIA for each pollutant. If there is no SIA predicted for a pollutant, no AAQS or PSD Class II increment modeling is required. For this modeling the receptor grid consisted of 222 receptors placed along 36 polar radials spaced 10 degrees apart and centered on the No. 4 Lime Kiln stack location. The first receptor was located at the plant property boundary with subsequent receptors located at offsite distances of 0.6 km, 1.0 km, 1.5 km, 2.0 km, 2.5 km, 3.0 km and 5.0 km. The results of the SIA analysis are shown in Table 6. The maximum predicted impacts are less than the applicable significant impact levels; therefore, no SIA is predicted for any pollutant and no further modeling in the PSD Class II area is required.

E. PSD Increment Analysis

1. Class II Area

The PSD increment represents the amount that new sources in an area may increase ambient ground level concentrations of a pollutant. The project site is located in a PSD Class II area. Because no significant PM₁₀ and NO₂ impacts due to the project are predicted, no further PSD Class II increment modeling is required.

2. Class I Area

There are four PSD Class I areas within 165 km of the project site. The St. Marks and Bradwell Bay National Wilderness Areas (NWAs) are 50 and 100 km from the site, respectively. The Okefenokee and Chassahowitzka NWAs are 125 and 165 km from the site, respectively. Maximum pollutant impacts were determined at all four Class I areas. Thirty-three (33) receptors were used to predict maximum impacts in the St. Marks (18) and Bradwell Bay (15) Class I areas, while 10 and 13 receptors were used to predict impacts at the Okefenokee and Chassahowitzka Class I areas. As was done in the PSD Class II area in the vicinity of the plant, maximum PM₁₀ and NO₂ impacts from the project were calculated at these Class I receptors. These impacts were compared with the National Park Service's significant impact levels. These impacts are shown in Table 7. They are less than the applicable significant impact levels; therefore, no further Class I modeling is required.

F. AAQS Analysis

No AAQS analysis is required for PM₁₀ and NO₂ emissions since the project's maximum predicted impacts are less than the significant impact levels.

G. Hazardous Air Pollutants Air Quality Analysis

The maximum predicted impacts of hazardous air pollutants (HAPs), including the PSD significant pollutant Be, that are proposed to be emitted by the project are presented in Table 8. Each pollutant's maximum 8-hour, 24-hour, and annual impact is compared to the Department's draft Ambient Reference Concentrations (ARC). As shown in the table, all predicted impacts are less than their respective ARC.

H. Additional Impacts Analysis

1. Impacts on Soils, Vegetation, and Wildlife

The maximum ground-level concentrations predicted to occur for PM₁₀ and NO₂ as a result of the proposed project, will be below the associated AAQS and significant impact levels. The AAQS are designed to protect both the public health and welfare. As such, this project is not expected to have a harmful impact on soils and vegetation in the PSD Class II area. An air quality

related values (AQRV) analysis was done by the applicant for the Class II area in the vicinity of the project and for the Class I areas. No significant impacts are expected.

2. Impact on Visibility

Visual Impact Screening and Analysis (VISCREEN), the EPA-approved Level 1 visibility computer model, was used to estimate the impact of the proposed project's stack emissions on visibility in the four Class I areas. The results indicate that the maximum visibility impacts do not exceed the screening criteria inside or outside these areas. As a result, there is no significant impact on visibility predicted for these Class I areas.

3. Growth-Related Air Quality Impacts

There will be no increase in permanent employment as a result of the proposed project. Therefore, there will be no permanent growth-related air quality impacts due to the project.

4. Good Engineering Practice (GEP) Stack Height

The GEP stack height regulations allow any stack to be at least 65 m (213 ft) high. The No. 4 Lime Kiln is an existing source with an existing stack. The lime kiln stack height is 38.1 m (125 feet). This source does not exceed GEP stack height based on the significant structures at the facility.

IV. Conclusion

Based on the information provided by Buckeye Florida, Limited Partnership, The Department has reasonable assurance that the modification of the facility by increasing the production rate of the No. 4 Lime Kiln to 750 tons per day and changing the throughput of the two Causticizing Lime Bins, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 62-212 of the Florida Administrative Code.

roj 3/25

Table 4. Projected Emission Rates Increases for Comparison with PSD Significant Emission Rates (Tons per Year)

Pollutant	Proposed Emission Rate	Significant Emission Rate	Applicable Pollutant (Yes/No)
PM	83.9	25	Yes
PM ₁₀	83.9	15	Yes
SO ₂	39.9	40	No
NO _x	85.1	40	Yes
CO	15.9	100	No
VOC	9.2	40	No
Lead	0.13	0.6	No
Beryllium	0.0006	0.0004	Yes
Mercury	0.00031	0.1	No

Table 5. Maximum Project Air Quality Impacts for Comparison to the De Minimus Ambient Levels.

Pollutant	Avg. Time	Max Predicted Impact ¹ (ug/m ³)	De Minimus Level (ug/m ³)
PM ₁₀	24-hour	2	10
NO ₂	Annual	0.2	14
Be	24-hour	0.00001	0.001

1. Highest, high value over a five year period for all averaging times.

Table 6. Maximum Project Air Quality Impacts for Comparison to the PSD Class II Significant Impact Levels.

Pollutant	Avg. Time	Max Predicted Impact ¹ (ug/m ³)	Significant Impact Level (ug/m ³)
PM ₁₀	Annual	0.2	1
	24-hour	2.1	5
NO ₂	Annual	0.22	1

1. Highest, high value over a five year period for all averaging times.

Table 7. Maximum Project Air Quality Impacts for Comparison to the PSD Class I Significant Impact Levels

Pollutant	Averaging Time	Max. Predicted Impact at Class I Area(s) ¹ (ug/m ³)	National Park Service (NPS) Significant Impact Level (ug/m ³)
PM ₁₀	Annual	0.006	0.08
	24-hour	0.095	0.27
NO ₂	Annual	0.0056	0.025

1. Highest, high value over a five year period for all averaging times.

Table 8. Hazardous Air Pollutant Analysis

Pollutant	8- hour		24- hour		Annual	
	Impact (ug/m ³)	ARC (ug/m ³)	Impact (ug/m ³)	ARC (ug/m ³)	Impact (ug/m ³)	ARC (ug/m ³)
Acetaldehyde	0.0524	450	0.0243	107	0.0027	0.5
Acrolein	0.0037	2.3	0.0017	0.5	0.0002	0.02
Antimony	0.0014	5	0.0006	1.2	0.0001	0.3
Arsenic	0.0012	0.1	0.0005	0.02	0.0001	0.00023
Benzene	0.0086	30	0.0040	7.2	0.0004	0.12
Beryllium	0.0001	0.02	0.0001	0.005	0.0000	0.00042
Cadmium	0.0002	0.02	0.0001	0.005	0.0000	0.00056
Carbon Disulfide	0.0471	310	0.0219	74	0.0024	200
Chlorobenzene	0.0024	460	0.0011	110		
Chromium III	0.0052	5	0.0024	1.2	0.0003	1000
Formaldehyde	0.0471	3.7	0.0219	0.9	0.0024	0.077
Hexane	0.0018	1760	0.0008	419	0.0001	200
Lead	0.0314	0.5	0.0146	0.1	0.0016	0.09
Manganese	0.0037	50	0.0017	12	0.0002	0.05
Mercury	0.0001	0.5	0.0000	0.1	0.0000	0.3
Methanol	0.1021	2600	0.0474	619	-	-
Methyl Ethyl Ketone	0.0052	5900	0.0024	1405	0.0003	1000
Methyl Isobutyl Ketone	0.0015	2050	0.0007	488	-	-
Napthalene	0.2959	500	0.1374	119	-	-
Nickel	0.0022	10	0.0010	2.4	0.0001	0.0042
particulate PAH	0.0393	2	0.0182	0.5	-	-
Selenium	0.0013	2	0.0006	0.5	-	-
Styrene	0.0024	2130	0.0011	507	0.0001	1000
Xylene	0.0020	4340	0.0009	1033	0.0001	80

Note: ARC = Ambient Reference Concentration

Memorandum

Florida Department of Environmental Protection

TO: C. H. Fancy

THROUGH: A. A. Linero *AAL Lin 3/25*

FROM: Ed Svec *ES*

DATE: March 25, 1996

SUBJECT: Buckeye Florida Lime kiln and Causticizing Bin Project
1230001-04-AC and PSD-FL-232

Attached for your review and approval is the public notice package for the Buckeye Florida project which is to increase the lime mud processing capacity of Lime Kiln No. 4. This will allow Buckeye to process more mud and will reduce purchases of lime.

The project will cause an increase only in lime production but not in anything else. However the emissions increase were significant with respect to particulate matter, NOx, and beryllium. The existing electrostatic precipitator will be used for particulate control including beryllium. NOx control will be achieved by good combustion practices.

Al and I will be happy to discuss this with you if you have any questions.

AAL/aal/l



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

Permittee:
Buckeye Florida, Limited Partnership
Route 3, Box 260
Perry, Florida 32347

Permit Number: 1230001-04-AC
PSD-FL-232
Expiration Date: 12/31/96
County: Taylor
Latitude/Longitude: 30°03'59"
83°33'12"
Project: No. 4 Lime Kiln and Two
Causticizing Lime Bins

This permit is issued under the provision of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4 and 62-212, Florida Administrative Code (F.A.C.). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto and specifically described as follows:

For modification of the existing No. 4 Lime Kiln by installing a new burner which will increase the operating rate of the lime kiln from 650 tons per day to 750 tons per day. The increase in production will also increase the throughput of two existing Causticizing Lime Bins. The project is located at the Buckeye Florida, Limited Partnership Foley Mill in Perry, Taylor County, Florida. The UTM coordinates of the site are Zone 17, 256.7 km E and 3328.7 km N. The No. 4 Lime Kiln will burn natural gas and No. 6 Fuel Oil. Particulate matter emissions will be controlled by an electrostatic precipitator. The two existing Causticizing Lime Bins are equipped with a baghouse to control particulate matter emissions.

The emission units shall be constructed (modified) in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachment listed below:

1. Application received January 12, 1996.
2. Corrected Table 2-1 received March 8, 1996.

PERMITTEE:
Buckeye Florida, L. P.

PERMIT NUMBER: 1230001-04-AC
PSD-FL-232

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

PERMITTEE:
Buckeye Florida, L. P.

PERMIT NUMBER: 1230001-04-AC
PSD-FL-232

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. A description of and cause of non-compliance; and,
- b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F. S. or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (X) Determination of Best Available Control Technology (BACT)
- (X) Determination of Prevention of Significant Deterioration (PSD)
- (X) Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three

PERMITTEE:
Buckeye Florida, L. P.

PERMIT NUMBER: 1230001-04-AC
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years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- The date, exact place, and time of sampling or measurements;
- The person responsible for performing the sampling or measurements;
- The dates analyses were performed;
- The person responsible for performing the analyses;
- The analytical techniques or methods used; and,
- The results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. The No. 4 Lime Kiln and two Causticizing Lime Bins may operate continuously, 8,760 hours per year, as requested by the permittee.

2. The maximum process rate of the No. 4 Lime Kiln is 118,463 lbs/hr lime mud and the maximum production rate of lime product is 62,500 lbs/hr or 750 tons per day. Input to the causticizing lime bins shall not exceed 62,500 pounds per hour from the lime kiln and 88,000 pounds per hour from the loading of purchased lime.

3. The No. 4 Lime Kiln shall burn only natural gas or No. 6 fuel oil. The natural gas fuel burning rate shall not exceed 0.202 million cubic feet per hour or 1,769 million cubic feet per year. The No. 6 fuel oil burning rate shall not exceed 1,400 gallons per hour or 12,264,000 gallons per year. The maximum percent sulfur of the No. 6 fuel oil shall not exceed 2.5 percent.

4. The permittee shall comply with all applicable requirements in 40 CFR 60, Subpart BB - Standards of Performance for Kraft Pulp Mills.

PERMITTEE:
Buckeye Florida, L. P.

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PSD-FL-232

5. Maximum emissions from the No. 4 Lime Kiln shall not exceed any of the following:

Pollutant	Emission Standard	lbs/hr	TPY
PM	0.0451 gr/dscf @ 10% O ₂	20.0	87.6
PM ₁₀	0.0451 gr/dscf @ 10% O ₂	20.0	87.6
SO ₂	1.0 lb/ton CaO	31.25	136.9
NO _x	2.19 lb/ton CaO	68.44	299.8
CO	0.41 lb/ton CaO	12.8	56.1
TRS	7 ppmvd @ 10% O ₂	2.64	11.68
Be	1.7E-05 lb/ton CaO	5.3E-04	0.0023

Visible emissions shall not exceed 20 percent opacity, F.A.C. Rule 62-296.310(2)(a).

6. Maximum emissions from the two Causticizing Lime Bins shall not exceed any of the following:

Pollutant	Emission Standard	lbs/hr	TPY
PM	0.02 gr/scfm	0.343	1.5
PM ₁₀	0.02 gr/scfm	0.343	1.5

Visible emissions shall not exceed 20 percent opacity, F.A.C. Rule 62-296.310(2)(a).

7. Assuming all PM is PM₁₀, initial and annual compliance tests for PM and PM₁₀ shall be conducted using EPA Method 5 in accordance with F.A.C Rule 62-297 and 40 CFR 60 Appendix A.

8. Initial compliance with the SO₂ limits shall be determined using EPA Method 6 or 6C in accordance with F.A.C. Rule 62-297 and 40 CFR 60 Appendix A. This test shall be a one-time test requirement only, it must be a valid test.

9. Initial and annual compliance tests for NO_x shall be conducted using EPA Method 7 or 7E in accordance with F.A.C. Rule 62-297 and 40 CFR 60 Appendix A.

10. Initial and annual compliance for TRS shall be determined using EPA Method 16 as specified by 40 CFR 60.285 in accordance with F.A.C. Rule 62-297 and 40 CFR 60 Appendix A. TRS shall also be monitored using a continuous emissions monitoring system meeting the requirements of 40 CFR 60.284.

PERMITTEE:
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11. Initial compliance with the beryllium limits will be determined using EPA Method 104 in accordance with 40 CFR 61 Appendix B. This test shall be a one-time test requirement only, it must be a valid test.
12. Initial and annual compliance tests for visible emissions shall be conducted using EPA Method 9 in accordance with F.A.C. Rule 62-297 and 40 CFR 60 Appendix A.
13. Visible emissions of 5% opacity or less from the Causticizing Lime Bins will waive the particulate matter testing requirements for the Causticizing Lime Bins in accordance with F.A.C Rule 62-297.620(4).
14. The compliance test reports shall be submitted to the Department's Northeast District office within 45 days of completion of the last test run.
15. The Department's Northeast District office shall be notified in writing at least 15 days in advance of any emission test required by this permit. Testing of emissions shall be conducted with the source operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum operating rate allowed by the permit. If it is impracticable to test at the permitted capacity, then sources may be tested at less than capacity; in this case, subsequent source operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the permitted capacity.
16. An annual operation report shall be submitted to the Department's Northeast District office by March 1 of each year pursuant to Rule 62-210.370(2), F.A.C.
17. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit (Rule 62-4.090, F.A.C.).
18. An Application for an operation permit must be submitted to the Department's Northeast District office. "Pursuant to Rule 62-213.420, F.A.C., the source shall apply for a Title V permit not later than 180 days after commencing operation and not later than 90 days before expiration of this air construction permit."

PERMITTEE:
Buckeye Florida, L. P.

PERMIT NUMBER: 1230001-04-AC
PSD-FL-232

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**

Howard L. Rhodes, Director
Division of Air Resources
Management

BEST AVAILABLE CONTROL TECHNOLOGY (BACT) DETERMINATION

Buckeye Florida, Limited Partnership
Perry, Taylor County, Florida
1230001-04-AC / PSD-FL-232

Buckeye Florida, Limited Partnership proposes to modify its existing No. 4 Lime Kiln at their Foley Mill in Perry, Taylor County, Florida such that lime production will be increased from 650 tons per day to 750 tons per day. The result of the proposed modification would result in the ability to recover lime mud currently lost in their water treatment process and thereby reduce the amount of purchased lime. The installation of a higher capacity burner is necessary to increase production of lime.

The lime kiln will emit particulate matter (PM and PM₁₀), sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds, lead, sulfuric acid mist, total reduced sulfur, beryllium, and mercury. The emission limits requested for the modification would result in a net significant increase of 83.9 TPY for PM, 83.9 TPY for PM₁₀, 85.1 TPY for NO_x, 0.006 TPY for Be and smaller quantities (less than significant emission rates) for SO₂, CO, VOC, Pb, Sulfuric Acid Mist, TRS and Hg. The significant emission rates for PM, PM₁₀, NO_x, and Be are 25 TPY, 15 TPY, 40 TPY and 0.0004 TPY, respectively.

The proposed increase in production of the No. 4 Lime Kiln is subject to the Prevention of Significant Deterioration (PSD) regulations and the allowable emissions of PM, PM₁₀, NO_x, and Be are set by a BACT determination.

DATE OF RECEIPT OF THE BACT APPLICATION

January 12, 1996

BACT REQUESTED BY THE APPLICANT

The applicant proposed the use of the existing electrostatic precipitator to control PM, PM₁₀ and Be emissions from the lime kiln. The requested PM standard is 20.0 lb/hr (0.0451 gr/dscf). The applicant assumes 100% of the PM is PM₁₀ and requests a standard of 20.0 lb/hr (0.0451 gr/dscf). The requested BACT for Be is the electrostatic precipitator and an emission rate of 5.3E-04 lb/hr. The applicant has requested the NO_x standard of 68.44 pounds per hour, which is equivalent to a concentration range of 134 to 185 ppmvd at 10% O₂ and 2.19 lb/ton CaO.

BACT DETERMINATION PROCEDURE

In accordance with Rule 62-212.410, Florida Administrative Code, Best Available Control Technology Determination, Stationary Source - Preconstruction Review, this BACT

determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking in to account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems and techniques. In addition, the regulations state that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of BACT pursuant to 40 CFR 52.21, and any emission limitation contained in 40 CFR 60 (Standards of Performance for New Stationary Sources) or 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other state.
- (d) The social and economic impact of the application of such technology.

BACT DETERMINED BY THE DEPARTMENT

The pulp and paper industry has historically employed venturi scrubbers or electrostatic precipitators to control PM and PM₁₀ emissions from lime kilns. The BACT Clearinghouse Document lists three BACT determinations issued during the last five years employing both technologies. These determinations allow emissions from lime kilns ranging from 0.035 to 0.081 gr/dscf at 10% O₂ and from 0.31 to 1.34 lb/ton CaO produced. Taking into account the maximum and minimum flow rates expected from the lime kiln, the 20.0 lb/hr requested by the applicant equates to a grain loading of 0.0327 to 0.0451 gr/dscf at 10% O₂ and a rate of 0.64 lb/ton CaO produced. These levels compare favorably to previous BACT determinations, can be achieved by the existing electrostatic precipitator and are considered to be BACT. The standard for PM and PM₁₀ shall not exceed 20.0 pounds per hour or 0.0451 grains per dry standard cubic foot at 10 percent oxygen.

The BACT Clearinghouse Document did not list a BACT determination for beryllium emissions from a lime kiln. Since beryllium is a trace metal emitted as particulate matter, the

BACT technology for particulate matter also represents BACT for beryllium. BACT for beryllium is an electrostatic precipitator for this lime kiln and the standard shall not exceed 5.3E-04 pounds per hour.

NO_x emissions from lime kilns result from the combustion of fuels. The standards for NO_x listed in the BACT Clearinghouse Document are based on good combustion practice. Previous BACT determinations for NO_x emissions at lime kilns have ranged from 175 to 290 ppmv at 10% O₂. In terms of lime production, the determinations range from 2.59 to 2.87 lb/ton CaO. The

levels proposed by the applicant range from 134 to 185 ppmvd at 10% O₂ (as NO₂) and 2.19 lb/ton CaO. The standard for NO_x shall not exceed 68.44 pounds per hour or 185 parts per million volume dry basis at 10 percent oxygen or 2.19 pound per ton lime produced.

DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

Edward J. Svec, Review Engineer
A. A. Linero, P.E., Administrator
Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RECOMMENDED BY:

APPROVED BY:

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

Howard L. Rhodes, Director
Division of Air Resources
Management

_____ 1996
Date

_____ 1996
Date