FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
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Buckeye Florida, Limited Partnership
One Buckeye Drive
Perry, Florida 32348

Authorized Representative:
Howard Drew, Vice President

Air Permit No. 1230001-042-AC
Permit Expires: October 1, 2014
Air Construction Permit Revision
Foley Energy Independence Project
No. 3 Recovery Boiler
Staged Air Improvements

PROJECT

This is the final air construction permit to revise and extend Permit No. 1230001-023-AC. This revision implements additional combustion modifications to the No. 3 Recovery Boiler consisting of increased air staging within the furnace.

The Buckeye Foley Mill is located in Taylor County at One Buckeye Drive in Perry, Florida. The UTM coordinates of the facility are Zone 17, 256.7 km East and 3328.7 km North. The facility is an existing pulp and paper plant. This final permit is organized into the following sections: Section 1 (General Information) and Section 2 (Permit Revisions).

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. A copy of this permit revision shall be filed with the referenced permit and shall become part of the permit.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.
(Electronic Signature)

Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

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CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on the date indicated below to the following persons.

Howard Drew, Buckeye Florida, Limited Partnership: howard_drew@bkitech.com
David Buff, P.E., Golder Associates: dbuff@golder.com
Khalid AlNahdy, DEP Northeast District Office: khalid.alnahdy@dep.state.fl.us
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Dee Morse, National Park Service: dee_morse@nps.gov
Lynn Scearce, DEP OPC: lynn.scearce@dep.state.fl.us

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.
(Electronic Signature)

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FACILITY DESCRIPTION

Buckeye Florida, Limited Partnership operates an existing dissolving grade Kraft process pulp mill in Perry, Florida. In the Kraft process, the digesting liquor (white liquor) is a solution of sodium hydroxide and sodium sulfide that is mixed with wood chips and cooked under pressure. The spent liquor, known as weak black liquor, is concentrated and sodium sulfate is added to make up for chemical losses. The black liquor solids (BLS) are burned in the recovery furnaces to produce a smelt of sodium carbonate and sodium sulfide. The smelt is dissolved in water to form green liquor to which quicklime (calcium oxide) is added to convert the sodium carbonate back to sodium hydroxide, which reconstitutes the cooking liquor. The spent lime cake (calcium carbonate) is recalcined in a rotary lime kiln to produce quicklime, which is used to convert the green liquor to cooking liquor. Steam and energy needs at the plant are met by: combination boilers, which burn bark/wood and supplemental residual oil; power boilers, which burn residual oil and natural gas; and recovery boilers, which burn BLS and supplemental residual oil.

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

PROPOSED PROJECT

Buckeye Florida, Limited Partnership requests additional time to complete the Foley Energy Independence Project. The time extension to Permit No. 1230001-023-AC/PSD-FL-397 would enable the facility to complete combustion modifications on the No. 3 Recovery Boiler, such as the addition of a true secondary air zone and the addition of a tertiary air zone which was described as BACT in PSD-FL-397. Combustion modifications are needed to correct excessive fouling caused by Phase I and II, and to enable Buckeye to achieve permitted black liquor solids rate.

The applicant identified the following construction schedule and anticipated completion dates for the PSD-FL-397B project:

Phase II: Additional modifications to the No. 3 Recovery Boiler will be completed in two parts. Some portion of the corrective action plan will be initiated in the spring of 2013 and the remainder of the changes will be installed in the spring of 2014. More detailed corrective action plans based on a computer modeling study are listed below:

- Additional primary air ports near the furnace corners may be added, or air port sizes could change, etc.
- A true secondary air zone (a few feet above the primary air zone) would be required. The configuration might be two-wall interlaced arrangement with air ports on just two walls.
- The existing secondary air zone (one level above the liquor guns) would require modification and become the tertiary air zone. These changes would likely eliminate the existing air ports, in favor of a two – wall interlaced arrangement with air ports on just two walls.

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SECTION 2. PERMIT REVISION (DRAFT)

This project will modify the following emissions unit.

Facility ID No. 1230001	
ID No.	**Emission Unit Description**
007	No. 3 Recovery Boiler

Due to the additional changes to Permit No. 1230001-023-AC/PSD-FL-397 the following permit conditions are revised as indicated. ~~Strikethrough~~ is used to denote the deletion of text. Double-underlines are used to denote the addition of text. All changes are emphasized with yellow highlight.

Permit Being Modified: Permit No. 1230001-023-AC; PSD-FL-397

Affected Emission Unit: No. 3 Recovery Boiler (EU Number 007).

Subsection 3, Specific Condition 2.b.: This condition is revised as follows.

b. *No. 3 Recovery Boiler*: Remove the existing cascade evaporator and modify the ductwork; change the drum internals and feed/riser tubes as necessary; install an additional economizer; install two new superheater platens to increase surface area; install a new water coil air heater to preheat and increase the primary air temperature in lower furnace; install new flue gas duct to connect outlet of existing economizer to inlet of new economizer; install new flue gas duct to connect outlet of new economizer to inlet of electrostatic precipitator; and install an ash collection system for the new economizer and ducts. Install additional primary air ports near the furnace corners, change air port sizes, install secondary air zone, install tertiary air zone, and eliminate existing air ports. The permittee shall install, operate and maintain equipment to continuously monitor and record the flow rates of each authorized fuel (e.g. flow meters with integrators). Construction is planned to commence in 2010 and be completed in ~~2010~~ 2014.

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