



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

December 27, 2007

Mr. John Bunyak, Chief  
Policy, Planning & Permit Review Branch  
NPS – Air Quality Division  
P. O. Box 25287  
Denver, Colorado 80225

RE: Buckeye Florida, L.P.  
Foley Energy Independence Project  
1230001-023-AC, PSD-FL-397

Dear Mr. Bunyak:

Enclosed for your review and comment is a PSD permit application from Buckeye Florida, L.P. for the Foley Energy Independence Project at their facility in Taylor County, Florida.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/921-9533. If you have any questions, please contact me at 850/921-9236.

Sincerely,

A handwritten signature in cursive script that reads "Paty Adams".

*for* Jeffrey F. Koerner, Program Administrator  
Permitting North Section

JFK/pa

Enclosure



# Florida Department of Environmental Protection

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Tallahassee, Florida 32399-2400

Charlie Crist  
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Lt. Governor

Michael W. Sole  
Secretary

December 27, 2007

Mr. Gregg M. Worley, Chief  
Air Permits Section  
U.S. EPA, Region 4  
61 Forsyth Street  
Atlanta, Georgia 30303-8960

RE: Buckeye Florida, L.P.  
Foley Energy Independence Project  
1230001-023-AC, PSD-FL-397

Dear Mr. Worley:

Enclosed for your review and comment is a PSD permit application from Buckeye Florida, L.P. for the Foley Energy Independence Project at their facility in Taylor County, Florida.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/921-9533. If you have any questions, please contact me at 850/921-9236.

Sincerely,

*Patricia Adams*  
for Jeffrey F. Koerner, Program Administrator  
Permitting North Section

JFK/pa

Enclosure



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

January 10, 2008

*Sent Electronically – Received Receipt Requested*

Mr. Howard Drew  
Vice President  
Buckeye Florida, Limited Partnership  
Foley Mill  
One Buckeye Drive  
Perry, Florida 32348

Re: PSD Permit Modification – Foley Energy Independence Project  
Request for Additional Information Letter  
Project No. 1230001-023-AC (PSD-FL-397)

Dear Mr. Drew:

On December 11, 2007, the Department received a request to modify the above referenced emissions units/operations at the Foley Mill and is identified as the “Energy Independence Project”. Based on our review of the proposed project, we have determined that the following additional information is needed in order to continue processing this application package. Please provide all assumptions, calculations, and reference materials, that are used or reflected in any of your responses to the following issues:

### **Air Quality Modeling Issues**

1. Modeling Issues: The modeling analysis including input files for this project was received on December 27, 2007. The Department will request additional information regarding modeling issues by January 26, 2008.

### **Project Equipment and Details**

2. Project Description: The proposed project seeks to improve efficiency for steam and electrical equipment at the plant, reduce the amount of electricity purchased from the grid and reduce the amount of fuel oil fired. The following summarizes the affected emissions units, describes the proposed changes related to the project and requests additional information as indicated.
  - a. No. 1 Power Boiler (EU-002): No physical changes are proposed; however, oil firing (including in this boiler will be restricted to no more than 820,958 MMBtu per consecutive 12 months (equivalent to 5,623,000 gallons of oil).
  - b. No. 2 Power Boiler (EU-003): No physical changes are proposed; however, this boiler will be prohibited from firing any fuels other than natural gas.
  - c. Nos. 2 and 3 Recovery Boilers (EU-006 and EU-007): These boilers will be physically modified by converting from direct contact evaporator (DCE) units to low-odor, non-direct contact evaporator (NDCE) units. Changes will allow the boilers to produce additional steam per pound of black liquor solids fired.
    - 1) Please provide details of the work that will be performed for the modifications. What are the related costs for the proposed changes for each boiler?
    - 2) Provide details of any changes proposed to the over-fire air systems. What are the related costs?
    - 3) Identify the new steam production rates (maximum 1-hour and maximum 24-hour averages) for each boiler.
    - 4) Identify the number of oil burners and the maximum rated capacity of each (vendor specification) in MMBtu/hour and gallons per hour. Will the project replace or modify any burners?

- 5) What is the heating value (Btu per lb of BLS) of the BLS at a solids content of 72%? Will the boilers be able to fire the same amount of BLS at the increased solids content? Will the maximum heat input rates increase as a result of this project?
  - 6) Please describe the startup and shutdown of these units and emissions during these periods, including: commencement of oil firing, commencement of BLS firing, startup of ESP, cessation of oil firing, etc.
  - 7) Other than startup and shutdown, describe how fuel oil is fired as a supplemental fuel.
  - 8) Identify the SO<sub>2</sub> emission rate in terms of "ppmvd @ 8% oxygen" that is equivalent to the maximum fuel oil sulfur content (2.5% by weight).
- d. Pulping System (EU-046): Add two concentrators to increase black liquor solids content. Add a new black liquor storage tank to store the 72% solids black liquor. Changes will increase the non-condensable gases (NCG) generated from the multiple effect evaporator (MEE) system, which will be controlled by the TRS scrubber. Will this equipment become subject to NESHAP Subpart MM as a new emissions unit. What is the total cost related to this work? Will the third existing recovery boiler experience a physical change or a change in the method of operation?
  - e. Steam Conservation Projects: Please provide details of the small steam conservation projects to be implemented throughout the plant and the related costs.
  - f. Nos. 1 and 2 Bark Boiler (EU-004 and EU-019): The plant intends to operate each boiler approximately 13% more on an annual basis by firing additional purchased bark/wood throughout the year. No physical changes or changes in the method of operation are proposed or necessary to meet this goal.
  - g. New Turbine Generator: Install a new steam turbine generator to produce additional electricity (12 MW) for the plant.
  - h. BLOX System: After completion of the No. 2 recovery boiler conversion, the maximum throughput of the black liquor oxidation (BLOX) system will be reduced proportionately (46%) and will support only the No. 3 recovery boiler. After completion of the second recovery boiler conversion, the BLOX system will be permanently shutdown.

Please provide the additional information requested and any comments or corrections on this project description.

3. No. 4 Recovery Boiler: The No. 4 Recovery Boiler was not included as part of this project. Will this boiler also fire BLS with a solids content of 72%? Please explain why this is not an affected unit of the project.
4. Schedule: The project will be constructed in the following two phases:
  - a. Phase I: Convert the No. 2 recovery boiler and add one new black liquor concentrator. After completing the conversion, operate BLOX system at a reduced capacity to support only the No. 3 recovery boiler. Construction is planned to commence in 2008 and be completed in 2009.
  - b. Phase II: Install one new condensing steam turbine generator, convert the No. 3 recovery boiler, and install a second new black liquor concentrator. Upon startup of the new turbine generator, the Nos. 1 and 2 bark boilers will increase operation and the Nos. 1 and 2 power boilers will begin complying with the oil firing restrictions. Construction is planned to commence in 2008 for the new turbine generator, in 2009 for the No. 3 recovery boiler and be completed in 2009.

Does this correctly summarize the preliminary construction schedule? Please correct or comment as necessary.

5. Contemporaneous Permit Projects: The Department's ARMS database indicates the following air construction permit projects issued to this facility since 2002.
  - Permit No. 1230001-017-AC: This is identified as a minor source air construction permit modification to authorize boilers to fire tall oil, which was issued on 2/16/2005 by NED office. Please explain this project the emissions increases and why the emissions were not identified as contemporaneous emissions increases.
  - Permit No. 1230001-018-AC: This is identified as a minor source air construction permit modification of the No. 1 Bark Boiler and the No. 1 Power boiler, which was issued on 2/16/2005 by NED office. Please explain this project, the emissions increases and why it was not included as a contemporaneous project.

For each project, identify the affected emissions units, describe the actual modifications or change in the method of operation made, summarize the emissions increases/decreases and provide a rationale as to why these emissions were not included in the PSD netting analysis provided.

6. PM<sub>2.5</sub> Emissions: For each affected emissions unit, please estimate the PM<sub>2.5</sub> emissions.

#### Applicability of Federal Regulations

7. NSPS and NESHAP Applicability: When existing units are modified, the federal NSPS and NESHAP requirements may be triggered for a given pollutant regulated by that NSPS or NESHAP if the maximum hourly mass emissions rate for that pollutant increases because of the project. Page 3-15 states that the recovery boilers are currently subject to NESHAP Subpart MM as existing units. Will the project trigger any new requirements from this regulation? Will the project trigger any other NESHAP or NSPS requirements because of this project? For each recovery boiler, please provide a table summarizing the before/after maximum hourly mass emissions rates for each pollutant regulated by a potentially applicable NSPS or NESHAP.

#### Appendices and Tables

8. Appendix A: There are several tables that have the baseline actual annual emissions assessed followed by a revised table for the same source and assessment, such as Table A-1 & Table A-2, where Table A-2 is listed as "Revised Emission Factors to Determine Actual Annual Emissions". Other table combinations where this was done are Tables A-7 & A-8, Table A-13 & A-14, Tables A-18 & A-19, Tables A-23 & A-24, Tables A-29 & A-30, and Tables A-35 & A-36. What does "revised" indicate? Why are there two tables for the same issue? If any of these changes affect any of the AOR submittals from past years, then please submit the changes to the Compliance Authority for updating the ARMS data. In addition, please consolidate the tables such that you have only one table for each emissions unit that reflects its past actual annual emissions.
9. SO<sub>2</sub> Calculations from Oil: When calculating actual baseline emissions for sulfur dioxide (SO<sub>2</sub>), the actual sulfur content (annual average) must be used and not the permitted allowable sulfur content (2.5% by weight). Please review the following tables: Tables 2-1 through 2-4 and Tables A-1 through A-40. For any actual baseline emissions calculations using "2.5% sulfur by weight", please provide supporting documentation (e.g., vendor analyses for each delivery) of the actual sulfur content. If necessary, revise any affected tables for actual SO<sub>2</sub> emissions based on actual fuel sulfur content. For these same tables, please review the footnotes and for each citation of "AP-42" without a corresponding reference, please provide the reference (see Table A-18, footnote "n").
10. Emissions Factors from Test Data: For the No. 2 recovery boiler, footnote "i" in Table A-1 states that the emissions factor used is the "average of last three stack tests". Why weren't tests from the last five-year period encompassing the period over which the emissions are being computed used to determine the emission factor pursuant to Rule 62-210.370(2)(d)1.a., F.A.C.? Unless justified for using the "average of last three stack tests", please recalculate the emissions factor pursuant to the rule and adjust Tables A-1 and A-5 accordingly. For the No. 3 recovery boiler, please do the same for Tables A-7 and A-11. For the No. 1 bark boiler, please do the same for Tables A-23 and A-27. For the No. 2 bark boiler, please do the same for Tables A-29 and A-33.
11. Multiplier: For Tables A-1, A-7, A-23, A-29, provide the basis and justification for using the multiplier defined as "1.15".
12. Control Efficiencies: In Table A-23 for the No. 1 bark boiler (footnote "o"), provide the basis for the particulate matter (PM) scrubber collection efficiency defined as 95%. In Table A-23 for the No. 1 bark boiler (footnote "x"), provide the basis for the SO<sub>2</sub> scrubber collection efficiency defined as 40%. In Table A-29 for the No. 2 bark boiler (footnote "l"), provide the basis for the SO<sub>2</sub> scrubber collection efficiency defined as 40%. In Table A-29 for the No. 2 bark boiler (footnote "o"), provide the basis for the particulate matter (PM) scrubber collection efficiency defined as 95%.
13. Changing Emissions Factors:
- Regarding Table A-14 for Power Boiler No. 1, the NO<sub>x</sub> emission factor when firing fuel oil is stated as 47.0 lb/10<sup>3</sup> gallons. Regarding Table A-18 for Power Boiler No. 2, the NO<sub>x</sub> emission factor when firing fuel oil is stated as 55.0 lb/10<sup>3</sup> gallons. Since the maximum heat input is 249 MMBtu/hr for each boiler, why are the emission factors different?
  - Regarding Table A-18 for Power Boiler No. 2, the NO<sub>x</sub> emission factor when firing natural gas is stated as 550.0 lb/10<sup>6</sup> scf, for the years 1996 to 1999, then it is changed to 280.0 lb/10<sup>6</sup> scf, for the years 2000 to 2006. Why are the emission factors different?

- c. Regarding Table A-14 for Power Boiler No. 1, the CO emission factor when firing natural gas is stated as 84.0 lb/10<sup>6</sup> scf. Regarding Table A-18 for Power Boiler No. 2, the CO emission factor when firing natural gas is stated as 40.0 lb/10<sup>6</sup> scf, for the years 1996 to 1999, and then it is changed to 84.0 lb/10<sup>6</sup> scf, for the years 2000 to 2006. Since the maximum heat input is 249 MMBtu/hr for each boiler, why are the emission factors different?
  - d. Regarding Table A-18 for Power Boiler No. 2, the PM emission factor when firing natural gas is stated as 3.0 lb/10<sup>6</sup> scf, for the years 1997 to 1999, then it is changed to 7.6 lb/10<sup>6</sup> scf, for the years 2000 to 2006. Why are the emission factors different?
  - e. Regarding Table A-18 for Power Boiler No. 2, the PM<sub>10</sub> emission factor when firing natural gas is stated as 3.0 lb/10<sup>6</sup> scf, for the years 1997 to 1999, then it is changed to 7.6 lb/10<sup>6</sup> scf, for the year 2000 and 2006. Why are the emission factors different? Why is there no emission factor for the years 2001 through 2005? For the years 2001 through 2005, the emission factor listed is "below threshold". Please explain this assumption since there are no PM nor PM<sub>10</sub> compliance tests required to be conducted on this boiler?
  - f. Regarding Table A-18 for Power Boiler No. 2, the VOC emission factor when firing natural gas is stated as 1.40 lb/10<sup>6</sup> scf, for the years 1997 to 1999, then it is changed to 5.5 lb/10<sup>6</sup> scf, for the years 2000 to 2006. Why are the emission factors different?
14. Fuel Fired in No. 2 Power Boiler: In Table A-18, natural gas is the only fuel listed as being burned in the boiler since 1996, yet in the Title V Air Operation Permit, No. 1230001-016-AV, issued 01/16/2005, the boiler is allowed to fire the following fuels:

B.2. Methods of Operation. This boiler may be fired with:

1. Natural gas.
2. No. 6 fuel oil with a sulfur content that shall not exceed 2.5% by weight and may include facility-generated used oil.
3. No. 2 fuel oil (typically used as a pilot fuel during startups, shutdowns, malfunctions and for dry out fires after a water wash).

[Rule 62-213.410, F.A.C.; Rule 62-210.700, F.A.C.]

Has any fuel besides natural gas been fired in the boiler since 1996? If so, then please identify the fuels, the amounts fired, and correct the table.

#### **Control Technology Review for Recovery Boilers**

15. Nitrogen Content of BLS: Based on actual fuel analyses, what is the current nitrogen content of the BLS? Once the solids content of the BLS is increased to 72%, what will be the nitrogen content (percent by weight)?
16. Discussion of NO<sub>x</sub> Emissions: Based on the NACASI information provided, the primary contributor to NO<sub>x</sub> emissions is the fuel-bound nitrogen levels of the BLS. Also according to the NACASI information, the boiler conversion will cause NO<sub>x</sub> emissions to increase (perhaps by 40%). Pages 5-17 and 5-18 of the PSD report states, "CO generation is inversely proportional to NO<sub>x</sub> generation. Does this relationship for conventional combustion sources hold true for recovery boilers? If so, CO emissions after the conversion should decrease. Please comment.
17. Other Recovery Boilers: Does Buckeye operate any other plants with low-odor, NCDE recovery boilers? Please identify each plant and for each recover boiler: the capacity, installed control equipment, emissions standards, and test data.
18. SNCR and SCR Control Systems: Is Buckeye or Golder aware of any SNCR or SCR control systems installed on recovery boilers? Please identify any units with the controls, the control equipment, control efficiencies, NO<sub>x</sub> emissions standards and actual NO<sub>x</sub> emissions rates.
19. CEMS: Do the recovery boilers currently have any installed continuous emissions monitoring systems (CEMS)?

#### **Miscellaneous**

20. Handling of NCG: Under the proposal, the bark boilers are going to be base loaded to burn more hog fuel (bark and waste wood) and the power boilers are going to be idled down to conserve on the use of fuel oil. Bark Boiler No. 1 is designated as the primary destructor of the noncondensable gases (NCG), with the Power Boiler No. 1 designated as the backup destructor for the NCG. Please explain how the plant will handle diversions of the NCG from the No. 1 Bark Boiler during outages, startups, shutdowns and malfunctions. While the No. 1 Bark Boiler is in operation and

experiences an upset such that the NCG must be diverted, will the Power Boiler No. 1 be operating at such a level that the NCG can be immediately diverted to it and subjected to a 0.5 second retention time and a minimum temperature of 1200° F? How will excursions without control be documented and handled?

21. PSD Avoidance for SO<sub>2</sub>: For reasonable assurance purposes and for all of the SO<sub>2</sub> emitting emissions units affected by this project, how will the emissions cap to avoid PSD NSR review be continuously monitored and compliance demonstrated?

**Supporting Documentation**

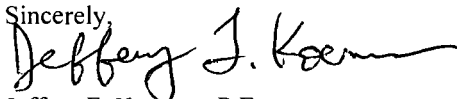
22. Supporting Documentation: Regarding the reference material cited in the Appendix A tables, please provide the following documents:
- NCASI Technical Bulletin No. 94
  - NCASI Technical Bulletin No. 416
  - NCASI Technical Bulletin No. 701
  - NCASI Technical Bulletin No. 858
  - NCASI Special Report #93-03
  - NCASI Special Report #03-06
  - NCASI Environmental Resource Handbook – Chemical Recovery Process (Tables A-1 & A-7)
  - NCASI Environmental Resources Handbook 3-02 (Tables A-23 & A-29)

We have Technical Bulletin No. 650, which is dated June 1993. Please provide any updates to this bulletin.

The Department will resume processing your application after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. For any material changes to the application, please include a new certification statement by the authorized representative or responsible official. You are reminded that Rule 62-4.055(1), F.A.C. requires applicants to respond to requests for information within 90 days or to provide a written request for an additional period of time to submit the information.

If you have any questions regarding this matter, please contact the project engineer, Bruce Mitchell, at 850/413-9198 or for modeling issues contact Cleve Holladay at 850/921-8986.

Sincerely,



Jeffery F. Koerner, P.E.  
New Source Review Section  
Bureau of Air Regulation

JFK/bm

- cc: Mr. Howard Drew, Buckeye Florida, Limited Partnership ([howard\\_drew@bkitech.com](mailto:howard_drew@bkitech.com))  
Mr. David Weeden, Buckeye Florida, Limited Partnership ([dave\\_weeden@bkitech.com](mailto:dave_weeden@bkitech.com))  
Mr. David A. Buff, P.E., Golder Associates, Inc. ([dbuff@golder.com](mailto:dbuff@golder.com))  
Mr. Chris Kirts, Northeast District Office ([christopher.kirts@dep.state.fl.us](mailto:christopher.kirts@dep.state.fl.us))  
Ms. Kathleen Forney, U.S. EPA, Region 4 ([forney.kathleen@epamail.epa.gov](mailto:forney.kathleen@epamail.epa.gov))  
Mr. Jim Little, U.S. EPA, Region 4 ([little.james@epamail.epa.gov](mailto:little.james@epamail.epa.gov))  
Mr. Dee Morse, National Park Service ([Dee\\_Morse@nps.gov](mailto:Dee_Morse@nps.gov))

**Mitchell, Bruce**

---

**From:** Koerner, Jeff  
**Sent:** Thursday, January 10, 2008 4:35 PM  
**To:** Mitchell, Bruce  
**Subject:** FW: Buckeye Foley Energy Independence Project, Request for Additional Information, Project No. 1230001-023-AC (PSD-FL-397)

FYI ...

Jeff Koerner, BAR - New Source Review Section  
Florida Department of Environmental Protection  
850/921-9536

---

**From:** Buff, Dave [mailto:DBuff@GOLDER.com]  
**Sent:** Thursday, January 10, 2008 3:54 PM  
**To:** Koerner, Jeff  
**Subject:** RE: Buckeye Foley Energy Independence Project, Request for Additional Information, Project No. 1230001-023-AC (PSD-FL-397)

David A. Buff, P.E., Q. E. P.  
Golder Associates Inc.  
Phone: (352)336-5600 x 545  
Fax: (352)336-6603 Mobile: (352)514-5600  
E-Mail: [dbuff@golder.com](mailto:dbuff@golder.com)

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**From:** Koerner, Jeff [mailto:Jeff.Koerner@dep.state.fl.us]  
**Sent:** Thursday, January 10, 2008 3:53 PM  
**To:** [howard\\_drew@bkitech.com](mailto:howard_drew@bkitech.com); [dave\\_weeden@bkitech.com](mailto:dave_weeden@bkitech.com); Buff, Dave  
**Cc:** Kirts, Christopher; [forney.kathleen@epamail.epa.gov](mailto:forney.kathleen@epamail.epa.gov); [little.james@epamail.epa.gov](mailto:little.james@epamail.epa.gov); [Dee\\_Morse@nps.gov](mailto:Dee_Morse@nps.gov)  
**Subject:** Buckeye Foley Energy Independence Project, Request for Additional Information, Project No. 1230001-023-AC (PSD-FL-397)

Dear Sir/Madam:



Please send a "reply" message verifying receipt of the attached documents. This may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the documents. The documents may require immediate action within a specified time frame. Please open and review the documents as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site:

<http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

<<Buckeye FEIP - RFI.pdf>>

*The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link](#) to the DEP Customer Survey. Thank you in advance for completing the survey.*

**Mitchell, Bruce**

---

**From:** Koerner, Jeff  
**Sent:** Thursday, January 10, 2008 4:35 PM  
**To:** Mitchell, Bruce  
**Subject:** FW: Buckeye Foley Energy Independence Project, Request for Additional Information, Project No. 1230001-023-AC (PSD-FL-397)

FYI ...

Jeff Koerner, BAR - New Source Review Section  
Florida Department of Environmental Protection  
850/921-9536

---

**From:** Dave Weeden [mailto:Dave\_Weeden@bkitech.com]  
**Sent:** Thursday, January 10, 2008 4:24 PM  
**To:** Koerner, Jeff  
**Cc:** Howard Drew  
**Subject:** RE: Buckeye Foley Energy Independence Project, Request for Additional Information, Project No. 1230001-023-AC (PSD-FL-397)

Jeff,

We received the document and will begin preparing a response.

Dave Weeden  
Environmental Program Manager  
Buckeye Technologies, Inc.  
One Buckeye Drive  
Perry, FL 32348

(850) 584-1398  
dave\_weeden@bkitech.com

---

**From:** Koerner, Jeff [mailto:Jeff.Koerner@dep.state.fl.us]  
**Sent:** Thursday, January 10, 2008 3:53 PM  
**To:** Howard Drew; Dave Weeden; dbuff@golder.com  
**Cc:** Kirts, Christopher; forney.kathleen@epamail.epa.gov; little.james@epamail.epa.gov; Dee\_Morse@nps.gov  
**Subject:** Buckeye Foley Energy Independence Project, Request for Additional Information, Project No. 1230001-023-AC (PSD-FL-397)

Dear Sir/Madam:

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The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site:

<http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

<<Buckeye FEIP - RFI.pdf>>

*The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.*



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

May 1, 2008

*Sent Electronically – Received Receipt Requested*

Mr. Howard Drew  
Vice President  
Buckeye Florida, Limited Partnership  
Foley Mill  
One Buckeye Drive  
Perry, Florida 32348

RE: Modification to the Nos. 1 & 2 Power Boilers, Nos. 1 & 2 Bark Boilers, Nos. 2 & 3 Recovery Boilers and Pulping System  
Request for Additional Information Letter  
Project No. 1230001-023-AC/PSD-FL-397

Dear Mr. Drew:

On April 1, 2008, the Department received a response to a request for additional information (RAI) letter dated January 10, 2008. On April 24, 2008, the Department received an e-mail from Rita Felton-Smith (Northeast District office), which stated that they had received an air construction permit application request from you on April 17, 2008, to allow several combustion sources affected by the Foley Energy Independence Project to burn tall oil as a fuel having a maximum fuel sulfur content of 2.5%, by weight. Based on our review of the response and the District's e-mail notification, we have determined that the following additional information is needed in order to continue processing this application package. Please provide all assumptions, calculations, and reference materials, that are used or reflected in any of your responses to the following issues.

1. As previously requested, please provide the details of the work to be performed on the Nos. 2 and 3 Recovery Boilers that will convert each unit to the Non-Direct Contact Evaporator design (ductwork, economizers, tubing, refractory, etc.).
2. Describe in detail what is covered under "common system changes", as described in RAI response No. 2.c.1., last bullet. Regarding the reference to pumps, will there be any change-out of any fuel pumps? If yes, please provide a description and the displacement (gallons/hour) of the existing pump and the new pump.
3. Regarding contemporaneous emission changes discussed in RAI response No. 5, your comment is confusing. What is the previous permit number that Permit No. 1230001-018-AC revised and you did not include because it was outside of the contemporaneous 5-year period? Please describe when each project was completed.
4. When the conversion of the No. 2 Recovery Boiler to low-odor design during Phase I is completed and a new black liquor concentrator installed, the total reduced sulfur (TRS) emissions collected by the noncondensable gas (NCG) system will increase, which will increase sulfur dioxide (SO<sub>2</sub>) emissions when combusted. Why was the PSD netting analysis split into Phase I and Phase II? Why were the SO<sub>2</sub> emissions increases from the No. 1 Bark Boiler and No. 1 Power Boiler included in Phase II rather than Phase I?
5. In the application and as reflected in Tables 2-1, 2-2, 2-3, 3-3 and 3-4, your PSD netting analysis was based on "baseline actual emissions" to "projected actual emissions". Baseline actual emissions are defined at Rule 62-210.200(Definitions), F.A.C., as follows: "For an existing emissions unit (other than an electric utility steam generating unit), baseline actual emissions means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding the date a complete permit application is received by the Department, except that the 10-year period shall not include any period earlier than November 15, 1990." It appears that your calculations used the actual sulfur content, by weight, of the fuel oil fired in 2002 (1.9%) and the consumption from the years 2004 and 2005. Based on Table A-6, the baseline years 2004 and 2005 lists the actual fuel sulfur contents, by weight, that were fired as 1.8% and 1.6%, respectively. Therefore, recalculate and submit the baseline actual emissions for SO<sub>2</sub> for each affected emissions unit using consistent years for the actual fuel consumption and actual fuel sulfur and make any adjustments to the affected tables and project proposal as necessary.

Mr. Howard Drew  
Buckeye Florida, Limited Partnership  
Project No. 1230001-023-AC/PSD-FL-397  
Request for Additional Information Letter  
Page 2 of 2

6. For the five years following the completion of construction and startup, describe in detail how you will determine SO<sub>2</sub> actual emissions for each affected emissions unit covered under this project to satisfy the reporting requirements of Rule 62-210.370, F.A.C. For this demonstration, address all of the allowable fuels (i.e., No. 6 fuel oil, on-specification fuel oil and tall oil) and include the following: use of any restricted fuel consumption; fuel monitoring; continuous monitoring; fuel deliveries (use of a bill-of-lading); fuel transfers (tall oil and/or on-specification used oil); fuel sampling (use of an as-fired drip sample: where, when and how); fuel-sampling analyses (in-house or out-sourced and response time for analysis); associated frequencies; and other methods to provide reasonable assurance that the project is not subject to PSD preconstruction review for SO<sub>2</sub> emissions.
7. Are all of the affected emissions units receiving their fuel from a day tank(s) or directly from a bulk storage tank(s)?
8. How much steam is needed to drive the new steam generator and at what pressure and temperature?
9. Your response to question No. 22 in the January 10<sup>th</sup> RAI was inadequate. As previously requested, please provide the following reference documents, or at least the excerpts from the documents that were used and referenced:
  - NCASI Technical Bulletin No. 94
  - NCASI Technical Bulletin No. 416
  - NCASI Technical Bulletin No. 701
  - NCASI Special Report #93-03
  - NCASI Environmental Resource Handbook – Chemical Recovery Process (Tables A-1 & A-7)
  - NCASI Environmental Resources Handbook 3-02 (Tables A-23 & A-29)If Technical Bulletin No. 650 has been updated since June 1993, please provide.

The Department will resume processing this application after receipt of the requested information. If you have any questions regarding this matter, please call Bruce Mitchell at (850)413-9198 or Cleve Holladay at (850)921-8986.

Sincerely,



Jeffery F. Koerner, P.E.  
New Source Review Section  
Bureau of Air Regulation

JFK/bm

- cc: Mr. Howard Drew, Buckeye Florida, Limited Partnership ([howard\\_drew@bkitech.com](mailto:howard_drew@bkitech.com))  
Mr. David Weeden, Buckeye Florida, Limited Partnership ([dave\\_weeden@bkitech.com](mailto:dave_weeden@bkitech.com))  
Mr. David A. Buff, P.E., Golder Associates, Inc. ([dbuff@golder.com](mailto:dbuff@golder.com))  
Mr. Chris Kirts, Northeast District Office ([christopher.kirts@dep.state.fl.us](mailto:christopher.kirts@dep.state.fl.us))  
Ms. Kathleen Forney, U.S. EPA, Region 4 ([forney.kathleen@epamail.epa.gov](mailto:forney.kathleen@epamail.epa.gov))  
Mr. Dee Morse, National Park Service ([Dee\\_Morse@nps.gov](mailto:Dee_Morse@nps.gov))

**Harvey, Mary**

**From:** Harvey, Mary  
**Sent:** Thursday, May 01, 2008 1:55 PM  
**To:** 'howard\_drew@bkitech.com'; 'dave\_weeden@bkitech.com'; 'Mr. David Buff, Golder Associates, Inc.'; Kirts, Christopher; 'Katy Forney, EPA Region 4:; 'dee\_morse@nps.gov'  
**Cc:** Mitchell, Bruce; Walker, Elizabeth (AIR); Gibson, Victoria  
**Subject:** Letter/Howard Drew - Buckeye Florida, Project #1230001-023-AC/PSD-FL-397  
**Attachments:** Document.pdf

| Tracking: | Recipient                                 | Delivery                    | Read                   |
|-----------|---|-----------------------------|------------------------|
|           | 'howard_drew@bkitech.com'                 |                             |                        |
|           | 'dave_weeden@bkitech.com'                 |                             |                        |
|           | 'Mr. David Buff, Golder Associates, Inc.' |                             |                        |
|           | Kirts, Christopher                        | Delivered: 5/1/2008 1:55 PM | Read: 5/1/2008 2:16 PM |
|           | 'Katy Forney, EPA Region 4:'              |                             |                        |
|           | 'dee_morse@nps.gov'                       |                             |                        |
|           | Mitchell, Bruce                           | Delivered: 5/1/2008 1:55 PM |                        |
|           | Walker, Elizabeth (AIR)                   |                             |                        |
|           | Gibson, Victoria                          | Delivered: 5/1/2008 1:55 PM | Read: 5/1/2008 2:01 PM |

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Thank you,

DEP, Bureau of Air Regulation

5/2/2008

## Harvey, Mary

---

**From:** Buff, Dave [DBuff@GOLDER.com]  
**To:** undisclosed-recipients  
**Sent:** Thursday, May 01, 2008 2:04 PM  
**Subject:** Read: Letter/Howard Drew - Buckeye Florida, Project #1230001-023-AC/PSD-FL-397

Your message

To: DBuff@GOLDER.com  
Subject:

was read on 5/1/2008 2:04 PM.

## Harvey, Mary

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**From:** Dave Weeden [Dave\_Weeden@bkitech.com]  
**To:** Harvey, Mary  
**Sent:** Thursday, May 01, 2008 2:03 PM  
**Subject:** Read: Letter/Howard Drew - Buckeye Florida, Project #1230001-023-AC/PSD-FL-397

Your message

To: Dave\_Weeden@bkitech.com  
Subject:

was read on 5/1/2008 2:03 PM.



## Harvey, Mary

---

**From:** Gibson, Victoria  
**To:** Harvey, Mary  
**Sent:** Thursday, May 01, 2008 2:01 PM  
**Subject:** Read: Letter/Howard Drew - Buckeye Florida, Project #1230001-023-AC/PSD-FL-397

Your message

**To:** 'howard\_drew@bkitech.com'; 'dave\_weeden@bkitech.com'; 'Mr. David Buff, Golder Associates, Inc.'; Kirts, Christopher; 'Katy Forney, EPA Region 4'; 'dee\_morse@nps.gov'  
**Cc:** Mitchell, Bruce; Walker, Elizabeth (AIR); Gibson, Victoria  
**Subject:** Letter/Howard Drew - Buckeye Florida, Project #1230001-023-AC/PSD-FL-397  
**Sent:** 5/1/2008 1:55 PM

was read on 5/1/2008 2:01 PM.

**Harvey, Mary**

---

**From:** Mitchell, Bruce  
**Sent:** Thursday, May 01, 2008 2:40 PM  
**To:** Harvey, Mary  
**Subject:** RE: Letter/Howard Drew - Buckeye Florida, Project #1230001-023-AC/PSD-FL-397

Thanks very much for handling the processing of the RAI letter! Take care.

Bruce

---

**From:** Harvey, Mary  
**Sent:** Thursday, May 01, 2008 1:55 PM  
**To:** 'howard\_drew@bkitech.com'; 'dave\_weeden@bkitech.com'; 'Mr. David Buff, Golder Associates, Inc.'; Kirts, Christopher; 'Katy Forney, EPA Region 4:>'; 'dee\_morse@nps.gov'  
**Cc:** Mitchell, Bruce; Walker, Elizabeth (AIR); Gibson, Victoria  
**Subject:** Letter/Howard Drew - Buckeye Florida, Project #1230001-023-AC/PSD-FL-397

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<http://www.adobe.com/products/acrobat/readstep.html>.

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Thank you,

DEP, Bureau of Air Regulation

5/1/2008

## Harvey, Mary

---

**From:** Dee\_Morse@nps.gov  
**Sent:** Thursday, May 01, 2008 4:19 PM  
**To:** Harvey, Mary  
**Subject:** Letter/Howard Drew - Buckeye Florida, Project #1230001-023-AC/PSD-FL-397

### Return Receipt

Your document: Letter/Howard Drew - Buckeye Florida, Project #1230001-023-AC/PSD-FL-397

was received by: Dee Morse/DENVER/NPS

at: 05/01/2008 02:17:40 PM MDT

## Harvey, Mary

---

**From:** Kirts, Christopher  
**To:** Harvey, Mary  
**Sent:** Thursday, May 01, 2008 2:16 PM  
**Subject:** Read: Letter/Howard Drew - Buckeye Florida, Project #1230001-023-AC/PSD-FL-397

### Your message

**To:** 'howard\_drew@bkitech.com'; 'dave\_weeden@bkitech.com'; 'Mr. David Buff, Golder Associates, Inc.'; Kirts, Christopher; 'Katy Forney, EPA Region 4'; 'dee\_morse@nps.gov'  
**Cc:** Mitchell, Bruce; Walker, Elizabeth (AIR); Gibson, Victoria  
**Subject:** Letter/Howard Drew - Buckeye Florida, Project #1230001-023-AC/PSD-FL-397  
**Sent:** 5/1/2008 1:55 PM

was read on 5/1/2008 2:16 PM.

## Harvey, Mary

---

**From:** Forney.Kathleen@epamail.epa.gov  
**Sent:** Sunday, May 04, 2008 5:24 PM  
**To:** Harvey, Mary  
**Subject:** Re: Letter/Howard Drew - Buckeye Florida, Project #1230001-023-AC/PSD-FL-397

thanks

-----  
Katy R. Forney  
Air Permits Section  
EPA - Region 4  
61 Forsyth St., SW  
Atlanta, GA 30303

Phone: 404-562-9130  
Fax: 404-562-9019

"Harvey, Mary"  
<Mary.Harvey@dep  
.state.fl.us>

05/01/2008 01:55  
PM

To  
<howard\_drew@bkitech.com>,  
<dave\_weeden@bkitech.com>, "Mr.  
David Buff, Golder Associates,  
Inc." <dbuff@golder.com>, "Kirts,  
Christopher"  
<Christopher.Kirts@dep.state.fl.us>,  
Kathleen  
Forney/R4/USEPA/US@EPA,  
<dee\_morse@nps.gov>

cc  
"Mitchell, Bruce"  
<Bruce.Mitchell@dep.state.fl.us>,  
"Walker, Elizabeth \ (AIR\)"  
<Elizabeth.Walker@dep.state.fl.us>,  
"Gibson, Victoria"  
<Victoria.Gibson@dep.state.fl.us>

Subject  
Letter/Howard Drew - Buckeye  
Florida, Project  
#1230001-023-AC/PSD-FL-397

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