

## Department of Environmental Protection

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

David B. Struhs Secretary

October 29, 2003

CERTIFIED MAIL - Return Receipt Requested

Mr. Theodore D. Kennedy Vice President - Palatka Operations Georgia-Pacific Palatka Mill P.O. Box 919 Palatka, Florida 32178-0919

RE: Request to Modify the No. 4 Recovery Boiler and No. 4 Lime Kiln and to Obtain a Bubble Plan Pursuant to 40

CFR 63.862(a)(1)(ii)(A) Project No.: 1070005-021-AC

Dear Mr. Kennedy:

On October 2, 2003, the Department received a response to an incompleteness letter regarding a request to modify the No. 4 Recovery Boiler (RB) and No. 4 Lime Kiln (LK) and to obtain a Bubble Plan pursuant to 40 CFR 63.862(a)(1)(ii). 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 material(s), that are used or reflected in any of your responses to the following issues:

- A. The response letter did not address the following two issues that were raised in the first letter of incompleteness, except for what is noted; therefore, please provide responses to the following:
- 1. Because of this noticeable difference and the increase in the flow rate from a previous maximum for the No. 4 RB, please address the following issues:
  - a. Response received.
  - b. Have you ever modified or replaced any component of the No. 4 RB since it was installed? If so, please explain in detail and identify the specific changes made and include the affected dates.
  - c. Have you ever modified or replaced any component of the No. 4 RB's control system since it was installed? If so, please explain in detail and identify the specific changes made and include the affected dates.
  - d. Has the ID (induced draft) fan associated with the No. 4 RB's operation ever been modified or replaced? If so, please explain in detail and identify the specific changes made and include the affected dates.
  - e. If a physical modification did occur to the No. 4 RB and/or its control system, please explain in detail and provide the AC permit(s) that authorized the modification.
- 2. Because of this noticeable difference and the increase in the flow rate from a previous maximum for the No. 4 LK, please address the following issues:
  - a. Response received.
  - b. Have you ever modified or replaced any component of the No. 4 LK since it was installed? If so, please explain in detail and identify the specific changes made and include the affected dates.
  - c. Have you ever modified or replaced any component of the No. 4 LK's control system since it was installed? If so, please explain in detail and identify the specific changes made and include the affected dates.
  - d. Has the ID (induced draft) fan associated with the No. 4 LK's operation ever been modified or replaced? If so, please explain in detail and identify the specific changes made and include the affected dates.
  - e. If a physical modification did occur to the No. 4 LK and/or its control system, please explain in detail and provide the AC permit(s) that authorized the modification.

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- B. In a review for PSD applicability, you cannot ignore pollutants that will be affected by the changes requested. In regard to this, the last sentence in paragraph 2 of the letter dated September 25, 2003, to Ms. Myra Carpenter, and the first sentence to Responses #3, #5, #6, #9, #10 & #11, are not acceptable in pursuing an air permit subject to potential PSD NSR (new source review). In addition, increasing the volumetric flow rates does affect and increase the short term emissions (lbs/hr) and annual emissions (TPY). Therefore, you did not appropriately answer issues #3, #4, #5, #6, #9, #10 & #11, that were raised in the first letter of incompleteness, which are:
  - 3. For the No. 4 RB, the value for the universal gas constant used in the calculations is inconsistent. In the calculations for TRS (total reduced sulfur) and SAM (sulfuric acid mist), the value used was 1545.3 ft-lbf/lb-mole-°R; and, for the rest of the calculations, the value used was 1545 ft-lbf/lb-mole-°R. Please use one value for consistency purposes for all of the calculations, recalculate the potential pollutant emissions and resubmit the appropriate application page that includes the emissions calculation.
  - 4. Even though the particulate matter (PM) Best Available Control Technology (BACT) emissions limits for the Nos. 4 RB and LK were set on the basis of "gr/dscf", AC permit, No. AC54-266676/PSD-FL-226, established federally enforceable limits in gr/dscf (corrected to 8% O<sub>2</sub>), lbs/hr and TPY for the No. 4 RB and AC permit, No. AC54-192551/PSD-FL-171, established federally enforceable limits in gr/dscf (corrected to 10% O<sub>2</sub>), lbs/hr and TPY for the No. 4 LK. The Bubble Plan requested by the application would relax the federally enforceable limits previously established. Since the relaxation of federally enforceable limits is a "modification" by definition, you are required to submit the appropriate emissions evaluation for all affected pollutants for PSD purposes pursuant to Rule 62-210.200, F.A.C., Definitions Actual Emissions, and Chapter 62-212, F.A.C., Stationary Sources Preconstruction Review. The average actual emissions value, in TPY, of each pollutant is to be compared to the future potential/allowable emissions, in TPY; and, if the net value is greater than the value(s) contained in Table 212.400-2, then please submit the appropriate application information to address the PSD New Source Review requirements of Rule 62-212.400(5), F.A.C.
  - 5. In the application section for the No. 4 RB, on page 16, the maximum dry standard flow rate is indicated as 325,677 dscfm. Yet, on page 19, the calculation for SAM used the actual volumetric flow rate of 447,000 acfm, when the standard is 0.81 ppmvd. In addition, the calculation for the emissions did not show the correction for moisture. Why did you use 860 °R instead of 528 °R for correcting the limit to standard conditions, specifically 68 °F? Please explain why the calculation methodology is different and, if appropriate, correct the calculation and resubmit the appropriate application page that includes the emissions calculation.
  - 6. In the application section for the No. 4 RB, on page 19, the calculation for SO<sub>2</sub> (sulfur dioxide) emissions would have to be based on 37.5 ppmvd in order to get the answer that you present. Please explain how you arrived at the answer that was submitted. Please correct and resubmit the appropriate application page that includes the emissions calculation.
  - 9. In the application section for the No. 4 LK, on page 16, the maximum dry standard flow rate is indicated as 45,853 dscfm, yet the emission calculations for CO (carbon monoxide), VOC (volatile organic compounds) and TRS, on page 19, use 45,833 dscfm. Please correct, recalculate and resubmit the appropriate application page(s) for each pollutant; and, include the calculations.
  - 10. In the application section for the No. 4 LK, on page 19, the calculation for SO<sub>2</sub> emissions assumes a 50% removal efficiency through the venturi scrubber. What is the basis for the removal efficiency and has this value ever been proven through stack testing? If so, please provide the test results.
  - 11. In the application section for the No. 4 LK, on page 19, the answer for the calculation for TRS emissions is not correct. Please correct and resubmit the appropriate application page that includes the emissions calculation.

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- C. Regarding Responses #3 and #13, what is the manufacturer's rating of the volumetric flow rates for the No. 4 RB and the No. 4 LK in acfm? Please provide the documentation.
- D. The rationale used in Response to #7 and #8 is not correct. You are <u>not</u> entitled to use a projected volumetric flow rate to calculate the "Bubble Limit". According to the Q & A (Questions and Answers) from EPA regarding the "Bubble Plan", you are to use actual test data to determine the "Bubble Limit"; and, an initial performance test shall be conducted to determine compliance with the limit. Therefore, issues #7 & #8 will be restated:
  - 7. To establish the limit for these emissions units, the formula provided in the regulations will be used; and, to demonstrate compliance, you will also use the formula to see if the emissions units are in compliance. Therefore, and again, for the proposed 40 CFR 63, Subpart MM MACT II Bubble Plan for the No. 4 RB and the No. 4 LK, you did not follow the requirements of 40 CFR 63.865(a), which requires that you use the average volumetric gas flow rates measured during the performance test to calculate the individual and overall PM limit. In Table 3, the application used a projected volumetric gas flow rate for each of these emissions units, which is unacceptable for the plan. If you still want to pursue a Bubble Plan, then please resubmit the proposed plan using the correct parameters; and, provide the calculations for all parts of the proposed plan.
  - 8. To establish the limit for these emissions units, the formula provided in the regulations will be used; and, to demonstrate compliance, you will also use the formula to see if the emissions units are in compliance. Therefore, and again, for the proposed 40 CFR 63, Subpart MM MACT II Bubble Plan for the No. 4 Smelt Dissolving Tanks (SDTs), you did not follow the requirements of 40 CFR 63.865(a), which requires that you use the average Black Liquor Solids (BLS) firing rate measured during the performance test to calculate the individual and overall PM limit. In Table 3 and for the No. 4 SDTs, the application states that the BLS used in the calculations were based on the permit limit of 105 tons/hr of BLS, which is unacceptable for the plan. If you still want to pursue a Bubble Plan, then please resubmit the proposed plan using the correct parameters; and, provide the calculations for all parts of the proposed plan.
- E. In regards to your conclusion in Response #4,  $4^{th}$  paragraph, last sentence, we disagree. Based on the limits for the No. 4 LK contained in AC54-266676/PSD-FL-226, your proposal would be subject to PSD NSR because the increase in PM10 is greater than 15 TPY (actually, 135.3 113.9 = 31.4), when comparing permitted allowables to future allowables; and, there would be even a greater difference if past actuals were compared to future allowables.

Please correct, where appropriate, and resubmit the application page(s) for each pollutant; and, include the calculations.

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.

Sincerely, Turia & Vuelhauer

Trina L. Vielhauer

Chief

Bureau of Air Regulation

TLV/bm

Enclosure

cc: Joel Huey, U.S. EPA, Region 4

Chris Kirts, NED Myra J. Carpenter, GP David A. Buff, P.E., GA

10/29/03. cc: Reading Filehell BRUCE MINCHELL

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| 1. Article Addressed to: Mr. Theodore D. Kennedy Vice President - Palatka Operations Georgia-Pacific Palatka Mill P.O. Box 919 Palatka, Florida 32178-0919   | D. Is delivery address different from item 1?  |  |
|  | 4. Restricted Delivery? (Extra Fee) Yes  |  |
| Article Number     (Transfer from service label) 7001 1140 0002 1577   | 9632   |  |
| PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540   |  |  |

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| 2001 1140   | Sent To  Mr. Theodore D. Kennedy - Vice President  Street, Apt. No.; or PO Box No. P.O. Box 919  City, State, ZIP+4 Palatka, Florida 32178-0919 PS Form 3800, January 2001  See Reverse for Instructio |                |                  |