

Department of Environmental Protection

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

David B. Struhs Secretary

August 29, 2003

CERTIFIED MAIL - Return Receipt Requested

Ms. Nicki S. Slusser, Mill Manager International Paper Company Pensacola Mill 375 Muscogee Road Cantonment, Florida 32533-0087

Re: DEP File No. 0330042-008-AC/PSD-FL-335

Pensacola Mill

Pulp Production Increase

Dear Ms. Slusser:

The Department has received the application on August 1, 2003, for an increase in pulp production from 1500 tons per day (TPD) air dried bleached tons pulp (ADBTP) to 1650 TPD ADBTP at the above referenced facility in Escambia County. Based on our initial 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.

- 1. For the modified emissions units (EUs) and for PSD preconstruction review purposes, the calculations of the various affected pollutants, for their net change, show past actuals to future actuals. The required calculations should have been done to show past actuals to future potentials/allowables. Please recalculate and submit. Inputs into the air dispersion modeling submitted with this application should have been based on future potentials/allowables. All additional modeling required by these changes should be performed and submitted.
- 2. It appears that the incremental increases in pollutants are estimated as if all of the new 150 ADTBP/day were from hardwood. Is this correct? Are the hardwood emission factors greater than the softwood emission factors for every pollutant? Please correct any calculations where appropriate.
- 3. The calculations for the recovery boilers (RBs; Units 1 and 2) assume an increase in black liquor solids (BLS) of 123,750/111,000 = 1.115; and, the corresponding increase in air dried tons bleached pulp (ADTBP) is 1650/1500 = 1.100. Why is there a 11.5 percent increase in BLS to match a 10 percent increase in ADTBP? In addition, is the 3600 lbs BLS/ADTBP factor proposed for the permit the same as the factor used in 1998-1999? Used currently?
- 4. Submit a cost analysis for using a cleaner fuel oil in the modified fuel oil combustion sources (e.g., lime kiln, calciner and RBs) in terms of \$/ton of sulfur dioxide (SO₂) removed. The affected EUs presently are allowed to burn natural gas and Nos. 4 and 6 fuel oils with a maximum sulfur content of 1.0 percent, by weight. The cost analysis should focus on fuel oil with sulfur contents of 0.5, 0.1 and 0.05 percent, by weight.

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- 5. From the BACT table provided, the SO₂ value that is proposed as BACT for each of the RBs (151 lbs/hr) is not the lowest value listed and seems to be very high compared to their past actuals (66 lbs/hr for Unit 1 and 46 lbs/hr for Unit 2). Please explain why such a large increase in the SO₂ emissions (129% for Unit 1 and 228% for Unit 2), when the percentage increase in BLS firing is established as only 11.5%? It is assumed that the increased values are not attributed to the startup and shutdown activities where the fuel oil usage is increased, but due to steady-state operations?
- 6. From the BACT table provided, the NO_X value that is proposed as BACT for each of the RBs (110 ppmvd @ 8% O₂) is in the middle range of the values listed. Therefore, for purposes of the BACT analysis, please submit the average and incremental cost effectiveness for NO_X control options. The cost effectiveness should be developed as a "cost per ton of pollutant removed" in order to help evaluate the reasonableness of various emission control technology costs and to help evaluate the added benefit of marginally different control options. These types of costs should be developed for the control options available, including, but not limited to, clean fuels, better combustion methods (e.g., Low NO_X burners), selective catalytic reduction (SCR) and selective non-catalytic reduction (SNCR) alternatives. In addition, explain why a lower emission rate is not achievable when the BACT values appear to indicate that a lower BACT is achievable.
- 7. Please provide NCASI Technical Bulletins Nos. 675, 676, 701 and 849 that were referred to in the BACT analysis and the calculations.
- 8. With an increase in production of ADUP, it is assumed that there will be an increase in total reduced sulfur (TRS) emissions; and, with the incineration of these TRS gases, then there will be an increase in SO₂ emissions. These SO₂ emissions are subject to PSD review scrutiny pursuant to EPA's memorandum 4.32, which requires resultant pollutants to be evaluated in accordance with the PSD regulations, in this case, Rule 62-212.400, F.A.C. Currently, the noncondensible gases of TRS are collected and transported to the Lime Kiln and the Fluo-Solids Calciner for incineration. BACT proposed for the Lime Kiln/Mud Dryer to address all SO₂ potential emissions is a wet scrubber. Please evaluate the potential SO₂ emissions from the incineration of the TRS gases in the Fluo-Solids Calciner.
- 9. On pages 7-2 and 7-6 the minor source baseline dates for PM10, SO₂ and NO₂ are incorrectly identified as 1979, 1979 and 1991. The correct minor source baseline dates for PM10 and SO2 are December 27, 1977, and for NO2 the correct minor source baseline date is March 28, 1988, (F.A.C. Rule 62-204.360 (1), (2) and (3)). The major source baseline dates for PM10 and SO₂ are January 6, 1975, and for NO₂ the major source baseline date is February 8, 1988 (Rule 62-204.200(20), F.A.C.). Baseline emissions should be based on these dates. If there were any increases in mill emissions after the major source baseline dates these emissions would consume increment and would not be included in the baseline emissions. For example, any increases or changes in emission parameters for PM10 and SO₂ emissions as a result of the PSD permit submitted in 1979 would consume increment. In addition any increases or changes in NO₂ emissions or stack parameters as a result of the PSD permit submitted in 1991 would also consume increment.
- 10. Table 7-1 gives the CO emissions increase due to the project as 110.54 tons per year. However, in Table 4-4, this increase is given as 2,592.41 tons per year (TPY) and in Table B-1, of Appendix B, this increase is given as 2,532.27 TPY. Which value is correct? The CO modeling was based on the value in Table 7-1. This modeling needs to be corrected and resubmitted if the CO increase is greater than that given in Table 7-1. PM10 increases in Tables 4-1 and 7-1 are given as 320.74 TPY; however, when the increases given in Table

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7-1 are added up they give only 307.46 TPY. In addition, the PM10 increase given in Table B-1 of Appendix B is given as 301.69 TPY. The VOC increase in Table 4-4 is given as 420.33 TPY, while in Table B=1, it is given as 288.43 TPY. Please address this discrepancy between all of these values. Also, a detailed explanation of the relationship of the short-term and the long-term project related emissions in Table 7-1 should be given for each source. Their relationship to the model input values for the significant impact, ambient air quality, and PSD increments should be given along with detailed calculations.

- 11. No NAAQS or PSD Class II PM10 modeling was contained on the compact disc containing the modeling information. Please provide this modeling or any corrected modeling results based on the comments in this letter.
- 12. It appears from Figure 2-1, in the main application, and Figure 2-1, in the appendices, that the property boundary was used to determine placement of receptors. Any property that is not fenced or does not have appropriate physical boundaries is considered "ambient air" for modeling purposes and receptors must be placed on this property for evaluation of predicted impacts. What fencing or physical barriers preclude public access to the property enclosed by the boundaries chosen to determine receptor placement?
- 13. The building information contained in the gridded facility plot plan, Figure D-2, in appendix D, and the BPIP building, structure data and location data, contained in Figure 7-4, in the main application, do not appear to match. Please indicate which of these is correct. In addition, please update the application with the correct detailed building structure information used in the modeling to determine downwash impacts. This information should include building dimensions for all buildings used in the modeling analyses. In addition, please provide a detailed plot plan to scale of the facility showing the exact location of the modeling origin in meters and the location from this modeling origin of each building and stack. All stacks and buildings should be labeled. In addition, a grid with 50 meter spacing should be overlaid over this plot plan so that the information on the plot plan can be easily correlated with the information in the BPIP files.
- 14. TRS emissions are shown as PSD significant in Table 4-2. Even though there are no standards or significant monitoring concentrations to model for, a qualitative discussion of potential TRS impacts should be presented.
- 15. The Scheffe analysis presented on pages 7-50 through 7-52 indicates that the maximum predicted ambient ozone concentration of 0.18, if added to the maximum monitored value given in Table 7-20, would result in a predicted exceedance of the ozone standard. Because of the ambient concerns for ozone for Escambia County and the surrounding area, it also seems appropriate to also achieve the lowest emissions rate possible for VOC. Please indicate what measures can be taken to reduce VOC emissions from this project.
- 16. According to an EPA Region 4 comment, ADEM has indicated that actual values in their database are unreliable for use. Instead of actual values, the allowable values for ADEM sources given in Tables 7-7, 7-8, and 7-9 should be used for PSD increment modeling for SO₂, PM10 and NO_x.
- 17. The 20 D rule states that for annual emissions, the distance D is measured from the edge of the significant impact area to the source to be evaluated. The significant impact area for NO_X is given as 5 km in Table 7-11. This value should be subtracted from all distances in Table D-5, of Appendix D, and the 20 D analysis should be redone to determine whether additional NO_X sources should be included in the modeling.

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18. The SO₂ significant impact area given in Table 7-11 appears to be incorrect. Based on the modeling output, the SO₂ significant impact area is 15 km. Please supply the correct significant impact area for SO₂.

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19. Please give the justification and calculations for all PSD increment emission rates given for the mill in Table 7-5.

20. The SO₂ modeling results included reduced emission rates from Gulf Power sources as inputs into the AAQS and PSD increment modeling. These reductions in impacts can not be used unless Gulf Power commits to reducing these emissions to the lowered levels through a permitting action with the Department. Also, in Table 7-12, the maximum modeled SO₂ concentration is given as 227.7 ug/m³. However, the modeling output gives 233 ug/m³ as the maximum. This value when added to the background concentration would result in a violation of the AAQS even with Gulf Power's reductions. Please address. This value also was in an area of 500 m receptor grid spacing, which was not refined. All predicted values within the highest 10% of the maximum predicted values should be evaluated through a "refined" modeling grid around the receptor point with at least 100 meter spacing. Where this was not done, this refined modeling should be done for all pollutants and the results should be submitted.

21. On page 7-11, it is mentioned that any stacks that were inverted or have a raincap were evaluated with a 0.01 meter per second exit velocity. Which sources in Figure 7-6, which lists the physical stack characteristics of mill sources, have rain caps? In addition, on page 7-14, it is mentioned that, where stack information was missing in Tables 7-7, 7-8 and 7-9, representative physical stack characteristics were employed and that these characteristics were bolded in the tables. However, there are no bolded values in these tables. Please indicate which sources should have been bolded.

Any additional comments from EPA and the U.S. Fish and Wildlife Service will be forwarded to you after we receive them. 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, Tuuad Valkauu

Trina L. Vielhauer

Chief

Bureau of Air Regulation

TLV/bm

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