



FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
BOB MARTINEZ CENTER
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JONATHAN P. STEVERSON
SECRETARY

Sent via Electronic Mail - Read Receipt Requested

rcummings@rexnfl.com

Mr. Randy Cummings, General Manager
Graceville Lumber Mill
Rex Lumber, LLC
P.O. Box 7
Graceville, Florida 32440

Re: Request for Additional Information #1
Rex Lumber, LLC- Graceville Lumber Mill
Proposed Graceville Upgrade Project
Project No. 0630011-015-AC/PSD-FL-431, Air Construction/Prevention of Significant
Deterioration Permit

Dear Mr. Cummings:

On March 17, 2015, the Department received the correct fee for the subject air permit application (Project No.) from the facility. This facility is located in Jackson County at 5299 Alabama Street in Graceville, Florida.

Project No. 0630011-015-AC/PSD-FL-431 was assigned to the request for the Air Construction (AC)/Prevention of Significant Deterioration (PSD) permit.

In order to continue processing the application, the Department needs the additional information as indicated below. Should a response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the permit application form.

The additional information requested is grouped here under two main headings - **“Proposed BACT”** and **“Air Quality Analysis.”**

Proposed BACT

1. Review of the air permit application submitted for the proposed project indicates that a Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) determination was required for emissions of volatile organic compounds (VOC) and particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM₁₀). BACT determinations are required for all emission units in the proposed project that emit VOC and PM₁₀.
 - a) In the air permit application for Lumber Drying Kilns 3 and 4 a document was attached labelled as “BEST AVAILABLE CONTROL TECHNOLOGY REVIEW dated FEBRUARY 6, 2015,” it has an electronic file name of “REX LUMBER LLC BACT REVIEW.docx.”

In this attachment the following is stated -

“Volatile Organic Compounds {emphasis added}

RACT/BACT/LAER Control Technology Review

...

The results of the database search are that add-on control equipment is not feasible. ***VOC {emphasis added}*** control practices listed in the PSD permit database consist of the following: Proper/Good Operating practice and maintenance, regularly scheduled kiln preventive inspection and maintenance programs, controlling moisture and temperature, record keeping, proper kiln design, and good work practices.”

This statement summarizes results of a RBLC Clearinghouse review. Please be specific as to what is being proposed. It seems that BACT was proposed for VOC emissions only from Lumber Drying Kilns 3 and 4. Please submit a revised proposed BACT also addressing PM₁₀ from the Lumber Drying Kilns 3 and 4.

- b) Also, please submit a proposed BACT for all of the other sources of VOC and PM₁₀ emissions in the proposed project.

While not specifically required in the Department's PSD Program, the U.S. EPA's "top-down" approach (a 5-step process) can be useful in preparing a BACT analysis. The "top-down" approach can be found in a document referred to as U.S. EPA's "Puzzle Book" accessible via their web site at the following [Hyperlink](#). In this document their "top-down" approach can be specifically found in "Chapter B - Best Available Control Technology, Section IV. A Step by Step Summary of the Top-Down Process and Section V. Top-Down Analysis: Detailed Procedures."

Also, for your information purposes in case you were not aware of them, some very recent BACT proposals were prepared in air permit applications for the following lumber kilns in Florida that could be useful because they are somewhat related to your particular proposed project:

Project No.	Facility Name	Plant Name	Brief Project Description
0310197-012-AC/PSD-FL-430	West Fraser, Inc.	Whitehouse Lumber Mill	Kiln Conversion Project
1230033-012-AC/PSD-FL-427	Gilman Building Products, LLC	Perry Mill	Kiln Replacement Project

The project files for these specific projects are accessible via the Department's Air Permit Documents Search web site at the following link: [search page](#).

[For the Department's pertinent regulatory citations/authorities see: Rule 62-212.400, F.A.C., *Prevention of Significant Deterioration (PSD)*; and, Rule 62-210.200(32), F.A.C., *Definitions - BACT*. When a BACT has been triggered the requirement for an applicant to propose a BACT can be found in the instructions for the air permit application form on pages 52-53.]

2. **Lumber Drying Kilns 3 and 4 Information.** In the application it was indicated that the controls on the kiln burners may be being upgraded. Are you proposing that to be part of your BACT proposal? For both kilns? Please provide additional information on the types of burners. For instance whether or not they are the latest burner design for their type of application in lumber drying kilns, i.e., latest/advanced burner design, configuration and how combustion could be optimized in the kilns. Information may be provided from manufacturer brochures.

[For the Department's pertinent regulatory citations/authorities see: Rules 62-4.160(2), *Design* and 62-4.070(1)&(3), *Reasonable Assurance*.]

Air Quality Analysis (Meteorological Evaluation, Air Dispersion Modelling, etc.)

3. **PSD Dispersion Modeling Fundamentals.**

The applicant should remodel the project following the federal regulations set forth in 40 CFR Part 51, Appendix W: Guideline on Air Quality Models and provide more thorough documentation of all methods and assumptions employed. Some of the major discrepancies in the PM₁₀ 24-hr NAAQS cumulative modeling scenario that was provided are as listed:

- a. No significant impact level (SIL) analysis was performed or discussed.
 - i. A SIL analysis should be utilized to determine the appropriate size of the modeling domain and whether to include other nearby sources in the modeling.
- b. The wrong pollutant ID (PM_{2.5} rather than PM₁₀) was specified in AERMOD.
- c. Only three years of meteorological data was used rather than the required five years.
 - i. Five years of data was provided.

- d. The second high concentration was output rather than the correct sixth high.
- e. A monitored background concentration was not added to modeled values.
 - i. A monitor is located in Okaloosa County.
- f. Nearby background sources were not added to the cumulative modeling analysis.
 - i. Reasoning must be given for not including nearby sources of PM₁₀.
- g. The sources included in the modeling scenario are not readily identifiable. More thorough documentation is needed to describe and/or explain the characterization of each source in the modeling.
 - i. Specifically, please provide an explanation for why the kilns are represented as a series of point sources within the model. This should include a description of these sources and the locations where any PM₁₀ emissions could occur.

This is not an exhaustive list of errors. The applicant should consult all applicable rules and regulations and any applicable U.S. EPA modeling guidance to perform and document a correct and complete PSD modeling analysis.

- 4. SIL Analysis. As mentioned by the applicant, the project site is located approximately 160 km from a PSD Class I area, the St. Marks National Wilderness Area, and as such a SIL analysis should be performed to assess the impacts of the project alone on the Class I area and determine if more thorough cumulative modeling (PSD Class I Increment and Class I air quality related values analyses) is required.
- 5. PM₁₀ PSD Class II Increment. The PM₁₀ PSD Class II increment should be addressed.
 - a. In addition to the 24-hr NAAQS, PM₁₀ has an established PSD increment and a modeling analysis should be performed including all nearby increment consuming sources if deemed necessary by the SIL analysis.
- 6. Pre-construction Monitoring Requirement. In addition to a general analysis of the present state of air quality in the area, the pre-construction monitoring requirement should be addressed as described in Appendix W.
- 7. Additional Impacts Analysis. An Additional Impacts Analysis should be performed and documented as described in Appendix W. The additional impacts analysis assesses the impacts of air, ground and water pollution on soils, vegetation, and visibility caused by any increase in emissions of any regulated pollutant from the source or modification under review, and from associated growth. Associated growth is industrial, commercial, and residential growth that will occur in the area due to the source.
- 8. Ambient VOC and Ozone Concentration Impacts. The project's impact on ambient VOC and ozone concentrations should be more thoroughly addressed.
- 9. Modeling Files. Please provide all files necessary to recreate all modeling analyses performed. This includes but is not limited to:
 - a. AERMOD input and output files in a .txt format;
 - b. AERMOD receptor files (.rou format), and,
 - c. BPIP input files.

The Department will resume processing the application after receipt of the requested information. Rule 62-4.050(3), Florida Administrative Code (F.A.C.) requires that all applications for a Department Title V air operation permit must be certified by a professional engineer (P.E.) 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 responsible official (R.O.).

Rule 62-4.055(1), F.A.C. now requires applicants to respond to requests for information within **ninety (90)** days or provide a written request for an additional period of time to submit the information.

Request for Additional Information #1

If you should have any questions, feel free to contact Mr. Scott M. Sheplak, P.E. [telephone at 850/717-9074, email at scott.sheplak@dep.state.fl.us] regarding the BACT items, Mr. Brian Himes, Meteorologist [telephone at 850/717-9005, email at brian.himes@dep.state.fl.us] regarding the Air Quality Analysis items or me [telephone at 850/717-9039, email at david.read@dep.state.fl.us].

Sincerely,

David L. Read, P.E.
Environmental Administrator
Permitting Section
Office of Permitting and Compliance

DLR/sms

copy to: Mr. Richard Brinker, P.E., PLE Consulting: richardbrinker@bellsouth.net
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