WASHINGTON DEPARTMENT OF ECOLOGY
P.O. BOX 47600
OLYMPIA, WASHINGTON 98504-7600

IN THE MATTER OF:	**]**	**NO. 96-03**
Boise Cascade Yakima	**]**	**FINAL APPROVAL**
Wood Products Complex	**]**	**OF PREVENTION OF**
Yakima, Washington	**]**	**SIGNIFICANT**
DETERIORATION		
		APPLICATION

Pursuant to the Washington Department of Ecology (Ecology) regulations for new source review (Washnigton Administrative Code 173-400-110) and based on the complete Notice of Construction Application (NOC) submitted by Boise Cascade Corporation and the technical analysis performed by Ecology, Ecology now finds the following:

FINDINGS

1. Boise Cascade Corporation (BCC) has applied to construct modifications at their Yakima Wood Products Complex (BCYC), The modifications consist of replacing three (3) wood fired Dutch oven boilers with four (4) new natural gas fire tube boilers, installation of a combustion air preheater on the remaining wood fired boiler (Boiler #4), new boiler master controls, and a wet electrostatic precipator to control particulate and condensible volatile organic compounds (VOCs) from the veneer dryers. This combination of modifications will bring this facility into compliance with regulatory limitations on combustion emissions and veneer dryer emissions opacity while giving a reliable steam supply to the plant.

2. BCYC submitted a notice of construction (NOC) application to the Yakima County Clean Air Authority (YCCAA) for the proposed project on July 16, 1996. Overall permitting and related requirements for the project are specified YCCAA's NOC approval. YCCAA has responsibility for assuring implementation of the terms of this PSD application approval..

3. BCYC submitted a PSD application to the Washington Department of Ecology (Ecology) for VOC emissions from the proposed project on July 19, 1996. The application was determined to be complete on August 16, 1996.

4. The site of the proposed project is within an area that is in attainment with regard to all pollutants regulated by the National Ambient Air Quality Standards (NAAQS) except particulate matter having an aerodynamic diameter less than or equal to 10 microns (PM_{10}).

5. Creditable potential VOC emissions from BCYC are expected to increase by approximately 100.6 tons per year (TPY) as a result of this project. This is in excess of the

significant emissions rate threshold of 40 TPY defined in 40 CFR 52.21(b)(23)(i). BCYC has potential regulated pollutant emissions greater than 250 tons per year. Consequently, BCYC was required to submit to the Washington Department of Ecology a "Prevention of Significant Deterioration" (PSD) application related to VOC emissions from this project.

6. BCYC will operate with capacity restrictions designed to prevent potential net nitrogen oxide (NO_x) emissions increases resulting from this project from exceeding 39.4 tons per year. This is below the significant emissions rate threshold. These capacity restrictions will be federally enforceable and are specified in YCCAA's NOC approval. Consequently, no PSD application is required for this project for NO_x emissions increases resulting form this project.

7. No other pollutants subject to PSD regulations are expected to have potential emissions increases as a result of this project

8. The project is subject to permitting requirements under 173-400 WAC, 173-460 WAC, 40 CFR 60.Subpart Dc, emission monitoring requirements under RCW 70.94, 173-400 WAC, notification and recordkeeping requirements under 40 CFR 60.48(a), 40 CFR 60.48(g), and 40 CFR 60.48(i), and to applicable regulations of the Yakima County Clean Air Authority as described under YCCAA's NOC approval to BCYC.

9. The facility will use only natural gas and wood as fuel. The remaining wood fired boiler will supply the base steam load and the new natural gas fired boilers will be used as swing boilers to supplement the steam supplied by the wood fired boiler to meet the steam demand for plant operation.

10. Best Available Control Technology (BACT) for VOC emissions control is required and will be used for the project under WAC 173-400-113(2).

11. Including the effect of required NO_x controls and the federally enforceable production limitations agreed to by Boise Cascade, the proposed emissions units will have potential emissions increases of 39.4 tons per year of NO_x.

12. Including the effect of required VOC controls, the proposed emissions units will have a creditable potential emissions increase of 100.6 tons per year of VOCs.

13. Including the effect of required particulate emissions controls, potential BCYC emissions of total suspended particulate and particulate matter of less than 10 micron diameter will have a net decrease of 155.9 tons per year.

14. As a result of the proposed project, potential BCYC emissions of sulfur oxides will have a net decrease of decrease 1.8 tons per year.

15. As a result of the proposed project, potential BCYC emissions of carbon monoxide will have a net decrease of decrease 893.8 tons per year.

16. Allowed emissions from the new or modified emissions units will not cause or contribute to air pollution in violation of

16.1 Any national ambient air quality standard.

16.2 Any applicable maximum allowable increase over the baseline ambient concentra- tion in any area.

17. Modeling indicates the project will result in slight visibility improvements for all Class I areas in the vicinity of BCYC.

18. Modeling indicates there will be no significant emissions increase of toxic air pollutants resulting from this project.

19. Construction of the proposed project can be expected to cause a temporary increase in related pollutant emissions, especially from operation and movement of vehicles used in the construction process. The project will not result in increased production activity at BCYC. The proposed modification is not expected to impact industrial growth in the area. BCYC would not require additional employees as a result of the project. The project will have no impact on residential growth or in commuting-related mobile source emissions.

20. Increases in emissions from this project are not expected to have an impact on soils and vegetation or other ecosystem variables in either the immediate Yakima area or in surounding Class I areas.

21. Ecology finds that all requirements for PSD are satisfied and that as approved below, the new emissions units comply with all applicable federal new source performance standards. Approval of the PSD application for the project as described in Finding 1. is granted subject to the following conditions:

APPROVAL CONDITIONS

1. The fire tube boilers shall be fueled only by pipeline quality natural gas.

2. VOC emissions from the fire tube boilers shall not exceed 23 kg/day (50.7 lb/day) calculated as carbon.

Initial compliance shall be determined by EPA Reference Methods 25A or 25B, or an equivalent method agreed to in advance by Ecology.

3. Volatile organic compound emissions (VOCs) from the wet electrostatic precipitator shall not exceed 246 kg/day (542.47 pounds per day) calculated as carbon.

Initial compliance shall be determined by EPA Reference Methods 25A or 25B, or an equivalent method agreed to in advance by Ecology. The emissions rate shall be calculated using the

average veneer dryer system production over the twelve months immediately preceding the start of construction of this project. For example, if the source test indicates VOC emissions at the time of the test to be 1.0 lb-carbon/Msf(3/8 in.), and total veneer production over the relevant twelve months was 180,000 Msf(3/8 in.), the calculated emissions rates for compliance demonstration would be 494.15 lb/day.

4. Within 180 days after start-up, BCYC shall conduct performance tests on VOC emissions from the natural gas fire tube boilers and the wet electrostatic precipitator, to be performed by an independent testing firm. A test plan shall be submitted for Ecology's approval at least 30 days prior to the testing. At the time of the performance test, any of the four fire tube boilers not in operation will not be considered to have participated in or satisfactorily passed the complicance demonstration test.

Start-up is defined as the time that the Dutch Ovens have been taken out of service, and one or more of the four (4) natural gas fire tube boilers and the wet electrostatic precipator have been operated for thirty days under normal veneer production scheduling.

5. Sampling ports and platforms shall be provided on the wet electrostatic precipator exhaust stack. The sampling ports and platform shall meet the requirements of 40 CFR, Part 60, Appendix A Method 20. Adequate permanent and safe access to the test ports shall be provided. Other arrangements may be acceptable if approved by Ecology prior to installation.

6. Compliance testing shall be performed annually for VOCs from the wet electrostatic precipator. If the compliance testing for 3 consecutive tests indicates that the source can maintain compliance with VOC emission limitations and Ecology agrees in writing to allow a reduced frequency of compliance testing, then the compliance testing frequency VOCs can be reduced to once every 4 years, until a test indicates noncompliance. When a compliance test for VOCs indicates noncompliance with the emissions limitations, the frequency of testing will return to the annual basis until the above criteria are met again.

Compliance for VOC limitations from the wet electrostatic precipator shall be determined by EPA Reference Methods 25A or 25B, or an equivalent method agreed to in advance by Ecology. The emissions rate shall be calculated using the average veneer dryer system production over the twelve months immediately preceding the source test. For example, if the source test indicates VOC emissions at the time of the test to be 1.0 lb-carbon/Msf(3/8 in.), and total veneer production over the immediately preceding twelve months was 180,000 Msf(3/8 in.), the calculated emissions rates for compliance demonstration would be 494.15 lb/day.

7. Operation within the agreed upon federally enforceable limitations on fuel consumption by the fire tube boilers and steam generation by Boiler #4 will be deemed satisfactory evidence of continuous compliance with VOC emissions limitations for these equipment items. Verification of operation within the agreed upon federally enforceable limitations shall be in accordance with conditions expressed in the NOC approval for this project from YCCAA.

8. Compliance test data for VOC emissions from the boilers and the wet electrostatic precipitator shall be reported in written (or electronic if permitted by Ecology) form to authorized representatives of Ecology and YCCAA not later than thirty days after performance (unless a different testing and reporting schedule has been approved by Ecology).

The format of the reporting shall be in a format approved by Ecology which shall include but not be limited to the following:

8.1. Process or control equipment operating parameters.
8.2. The hourly data and average concentration, in the units of the standard, for each pollutant monitored,
8.3. Results of any stack tests
8.4 Veneer production rates during the test.
8.5 For compliance demonstration on the fire tube boilers, the report shall include the related verification of operation within the agreed upon federally enforceable limitations in accordance with conditions expressed in the NOC approval for this project from YCCAA.

9. For each occurrence of monitored emissions in excess of the limits outlined in this permit, the emissions compliance report shall include the following:

9.1. The time of the occurrence.
9.2. Magnitude of the emission or process parameters excess.
9.3. The duration of the excess.
9.4. The probable cause.
9.5. Corrective actions taken or planned.
9.6. Any other agency contacted.

10. Operating and maintenance manuals for all equipment that has the potential to affect emissions to the atmosphere shall be developed and followed. Copies of the manuals shall be available to Ecology and YCCAA inspectors or the authorized representative of Ecology. Emissions that result from a failure to follow the requirements of the manuals may be considered proof that the equipment was not properly operated and maintained.

11. Operation of the equipment that has the potential to affect emission to the atmosphere must be conducted in compliance with all data and specifications submitted as part of the NOC application unless otherwise approved by Ecology.

12. BCYC will perform ambient air quality monitoring for ozone during the summer and nitrogen oxide monitoring for a full year following completion of this project.

12.1 Monitoring shall begin not later than the first June 1st following startup (as defined in paragraph 8., above). Ozone monitoring shall continue through the following September 30th.

12.2 Monitoring shall be done at a location previously approved by Ecology.

12.3 Monitoring and reporting protocol shall be previously approved by Ecology.

12.4 BCYC shall copy YCCAA on proposals made to Ecology to satisfy this monitoring requirement (i.e., condition 12)

12.5 The QA/QC plan for the monitoring station shall be approved by Ecology prior to operation.

12.6 Determination that the monitoring has been successfully completed shall be based exclusively on Ecology's quality control review. The monitoring data shall be of PSD or standard EPA ambient monitoring quality.

13. This approval shall become void if construction of the project is not commenced within eighteen (18) months after receipt of final approval, or if construction of the facility is discontinued for a period of eighteen (18) months.

14. Any activity which is undertaken by BCYC or others, in a manner which is inconsistent with the application and this determination, shall be subject to Ecology enforcement under applicable regulations. Nothing in this determination shall be construed so as to relieve BCYC of its obligations under any state, local, or federal laws or regulations.

15. BCYC shall notify Ecology in writing at least thirty days prior to start-up of the project.

16. Access to the source by Ecology or the authorized representative of Ecology shall be permitted upon request for the purpose of compliance assurance inspections. Failure to allow access is grounds for revocation of this determination of approval.

Reviewed by:

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Bernard Brady, P.E. Date
Engineering and Technical Services
Washington Department of Ecology

Approved by:

_____ _____

Joseph Williams Date
Air Quality Program Manager
Washington Department of Ecology