



- 47 only state or local air quality permit or approval required to allow commencement of  
48 construction of NORPAC I.  
49
- 50 3. NORPAC II essentially duplicated the NORPAC I project. In July 1979, Ecology issued a  
51 declaration of significance in regard to the NORPAC II, referring to the 1977 EIS for the  
52 NORPAC I project. NORPAC submitted a Notice of Construction application to SWAPCA  
53 in July 1979. On August 23, 1979, SWAPCA issued Order of Approval No. 79-475 allowing  
54 construction of the NORPAC II project. At that time, SWAPCA's Order of Approval was  
55 the only state or local air quality permit or approval required allowing commencement of  
56 construction of NORPAC II.  
57
- 58 4. PSD-97-01 was issued on December 9, 1997. The emission limits were based upon the  
59 combined production of 540,000 Air Dried Metric Tons (ADMT) of newsprint per year.  
60 This permit accounted for 515,000 ADMT of normal brightness paper per year and 25,000  
61 ADMT of high brightness paper. These production rates were based on the paper grade  
62 production mix anticipated at the time to satisfy future market demand for varying paper  
63 basis weight and brightness specifications. Thermo-Mechanical Pulping (TMP) fiber  
64 production required to support these paper production levels was projected to be 415,307  
65 Bone Dry Metric Tons (BDMT) of normal brightness TMP pulp and 22,750 BDMT of high  
66 brightness TMP pulp per year. The permit effectively limited high brightness pulp and paper  
67 production as a percentage of total pulp and paper production, and limited total pulp and  
68 paper production based on projected grade basis weight mix.  
69
- 70 5. Today's action does not involve a physical change to allow increased total or high brightness  
71 pulp and paper production. Rather, it allows for operating flexibility to produce increased  
72 volumes of high-brightness and high basis weight paper grades. These grades may now  
73 represent up to 100% of total production. Annual potential production rates for the highest  
74 production rate grades are 542,117 BDMT/year of TMP pulp and 623,685 ADMT/year of  
75 paper. Emission limits are based on these maximum potential production rates, rather than  
76 on the projected actual production rates for the grade mix anticipated to meet future market  
77 demand.  
78
- 79 6. The Weyerhaeuser, Longview mill complex qualifies as a major source of air pollutants  
80 because it is listed as a major stationary source under Title 40, Code of the Federal  
81 Regulations, Part 51, Section 166, paragraph (b)(1)(i)(a) and has the potential to emit more  
82 than 100 tons per year of several pollutants.  
83
- 84 7. This project qualifies as a major modification of the Weyerhaeuser, Longview mill complex  
85 because emissions of volatile organic compounds (VOC's) and carbon monoxide will  
86 increase by more than 40 and 100 tons per year respectfully.  
87
- 88 8. The site of the modification is within an area designated Class II for the purposes of PSD  
89 evaluation under 40 CFR 52.21 as amended through January 1, 1995.  
90

- 91 9. The site of the proposed modification is within an area, which is in attainment for all  
92 pollutants regulated by state and national ambient air quality standards.  
93  
94 10. The emissions of CO and VOC's from the major modification have "net significant  
95 decreases" and are therefore NOT subject to PSD review. A netting analysis was performed  
96 over the 5-year contemporaneous period immediately preceding the submittal of this  
97 application. After netting emissions of CO and VOC it was determined that emissions did  
98 not exceed the PSD significance rates. All the Emission reductions were made to be  
99 federally enforceable by the issuance of Emission Reduction Credits (ERC's). This analysis  
100 is shown in Table 1 below:

101  
102 Table 1. Netting Analysis  
103

| Year                       | Project Name                        | Creditable Emissions<br>Increases & Decreases<br>(tpy) |            |
|----------------------------|-------------------------------------|--|------------|
|                            |                                     | VOC  | CO         |
| 1998                       | East Powerhouse Shutdown            | (170.00)*  | (1,651.0)* |
| 1998                       | Kraft Mill Modernization PSD Update | 0.0  | 0.0        |
| 2000                       | Package Boiler 8N Shutdown          | (0.03)**   | (16.5)**   |
| 2000                       | NORPAC PM No. 1 Sectional Drive     | 1.9  | 0.0        |
| 2000                       | NORPAC PM No. 1 Flat Box            | 0.9  | 0.5        |
| 2000                       | Saltcake Receiving & Storage        | 0.0  | 0.0        |
| 2001                       | NORPAC Deink Improvement Project    | 0.9  | 0.0        |
| 2001                       | NORPAC PM No. 2 Dryer Improvements  | 1.0  | 0.0        |
| 2001                       | Kraft Optimization Project          | 3.9  | 0.0        |
| 2003                       | Request for Permit Change PSD-97-01 | 97.3   | 810.4      |
| Net Emission Change        |                                     | (64.1)   | (856.6)    |
| PSD Significance Level     |                                     | 40   | 100        |
| Exceeds Significance Level |                                     | No   | No         |
| PSD Review Required        |                                     | No   | No         |

104 \* East Powerhouse ERC's were issued in Order No. DE98-AQ-1049

105 \*\* Package Boiler 8N ERC's were issued in Order No. DE00-AQIS-1427

- 106  
107 11. The emissions of all other air pollutants from the modifications were subject to new source  
108 review by Ecology's Industrial Section.  
109  
110 12. A Best Available Control Technology (BACT) analysis was not performed because there was  
111 no net emissions increase in PSD pollutants.  
112  
113 13. This permit supersedes PSD-97-01 issued on December 9, 1997.  
114  
115 14. Visibility impairment will not be perceptibly increased in any Class I area.

116 15. Allowable emissions increases from the new and modified emissions units, in conjunction  
117 with all other applicable emissions increases or reductions (including secondary emissions),  
118 will not cause or contribute to air pollution in violation of:

119

120 15.1 Any national ambient air quality standard.

121 15.2 Any applicable maximum allowable increase over the baseline concentration in  
122 any area.

123

124 16. No noticeable effect on industrial, commercial, or residential growth in the Longview area is  
125 anticipated due to the project.

126

127 17. Ecology finds that all requirements for PSD are satisfied and that as approved below, the new  
128 and modified emissions units comply with all applicable federal new source performance  
129 standards. Approval of the PSD application and notice of construction are granted subject to  
130 the following conditions.

131

**PSD APPROVAL CONDITIONS**

1. VOC emissions from NORPAC I and II units shall not exceed 6,488 pounds per day when averaged over 30-consecutive days.
  - 1.1. Compliance with the daily VOC emission limit shall be assured by computing daily VOC emission rate from the NORPAC I and II units.
  - 1.2. Daily VOC emission rate shall be computed by summing daily production rates multiplied by the appropriate daily emission factors contained in *Table 2. NORPAC I & II VOC Emission Factors* of this permit. Such calculations shall account for all operations at each operating condition during each day of operation.
2. VOC emissions from the NORPAC I and II units shall not exceed 927.3 tons per year when averaged over any consecutive 12-month period.
  - 2.1. Compliance with the annual emissions limit shall be assured by the summation of monthly-calculated emission rates over the calendar year.
  - 2.2. Monthly emissions shall be calculated by multiplying monthly TMP and Paper Machine production values under each operating condition by the appropriate emission factors from *Table 2* then summing the products. Such calculations shall account for all operations at each operating condition during the calendar month.
3. CO emissions from the NORPAC I and II units shall not exceed 891.4 tons per year when averaged over any consecutive 12-month period.
  - 3.1. Compliance with the annual emissions limit shall be assured by the summation of monthly-calculated emission rates over the calendar year.
  - 3.2. Monthly emissions shall be calculated by multiplying monthly TMP and paper machines production values under each operating condition by the appropriate emission factors from *Table 3. NORPAC TMP I & II CO Emission Factors* of this permit, then summing the products. Such calculations shall account for all operations at each operating condition during the calendar month.
4. Weyerhaeuser shall conduct source tests of the NORPAC I and II units for VOC and CO to be performed by an independent testing firm.
  - 4.1. The emission points tested shall include those tested in the 1994 emission evaluation program and serve as the basis for the refinement of emission factor summaries in Tables 2 and 3 of this permit.
  - 4.2. Source testing shall be conducted once every three years commencing within 180 days of achieving > 20% high brightness production but not later than 2005.
  - 4.3. Weyerhaeuser shall consult with Ecology to determine if the emission factors listed in Tables 2 and 3 of this permit should be updated.
5. The objective for this source testing is to verify the reasonableness of the emission factors developed in the 2002 emission evaluation program. Should there be a significant deviation in the emission factors developed from subsequent testing ( $\pm 20\%$ ), either Ecology or Weyerhaeuser may initiate a technical discussion on the need to amend the factors present in

- 176 Tables 2 and 3 of this permit, Ecology may require amendment of the emission factors in  
177 Tables 2 and 3.  
178
- 179 6. All source tests shall be conducted in accordance with the appropriate methods set forth in  
180 Title 40 Code of the Federal Regulations, Part 60, Appendix A as amended through July 1,  
181 1996, or later.
- 182 6.1. Each performance test shall consist of three separate runs using the applicable test  
183 method, with the overall test result to be an arithmetic average of the results of the three  
184 test runs, in accordance with 40 CFR 60.8(f).
- 185 6.2. A test plan shall be submitted for Ecology's approval at least 30 days prior to the testing.
- 186 6.3. The initial tests and test methods shall include, but may not be limited to, the following:
- 187 6.3.1. Sampling location and in-stack points as measured by Reference Method 1.  
188 6.3.2. Stack gas velocity and volumetric flow rate as measured by Reference Method 2.  
189 6.3.3. Carbon monoxide as measured by Reference Method 10.  
190 6.3.4. Volatile organic compounds, as measured by Reference Methods 25, 25A, or  
191 25B, modified as necessary to handle high moisture content. Any moisture removed  
192 as a result of such modification shall be analyzed for VOCs, which shall be  
193 accounted for.
- 194 6.4. Any deviation from the above test methods must be agreed to by Ecology in the test  
195 plan.  
196
- 197 7. Weyerhaeuser shall maintain records of emissions calculations, which will include:
- 198 7.1. The quantities of high brightness and normal brightness TMP pulp and paper produced  
199 during the month;  
200 7.2. The number of hours each month that pulp was produced while the Reboiler was down  
201 and the estimated quantity of TMP pulp produced during reboiler downtime;  
202 7.3. The approximate percentages of wood specie types pulped during the month; and  
203 7.4. The appropriate emission factors from Tables 2 and 3.  
204 7.5 Weyerhaeuser shall report to Ecology, in a manner approved by Ecology, the monthly  
205 cumulative total VOC and CO emissions, in units of the standard, in the "monthly air  
206 report," in accordance with the requirements of WAC 173-401-615.  
207
- 208 8. Each occurrence of calculated emissions in excess of limits contained in this PSD approval  
209 shall be reported at least monthly within thirty days of the end of each calendar month to  
210 Ecology. The information shall include, but not limited to, the following:  
211
- 212 8.1. The time of the occurrence.  
213 8.2. Magnitude of the emission or process parameters excess.  
214 8.3. The duration of the excess.  
215 8.4. The probable cause.  
216 8.5. Any corrective actions taken or planned.  
217
- 218 9. Weyerhaeuser shall submit to Ecology a report presenting the findings from a study that  
219 estimates VOC emissions from the de-ink mill and effluent treatment and sewer system

220 within 180 days of the effective date of this permit. The purpose of this study is to estimate  
221 VOC emissions from these sources.

222  
223 10. Any activity that is undertaken by Weyerhaeuser or others, in a manner that is inconsistent  
224 with the application and this determination, shall be subject to Ecology enforcement under  
225 applicable regulations. Nothing in this determination shall be construed so as to relieve  
226 Weyerhaeuser of its obligations under any state, local, or federal laws or regulations.

227  
228 11. Access to the source by the U.S. Environmental Protection Agency (EPA), Ecology, or local  
229 regulatory personnel shall be permitted upon request for the purpose of compliance assurance  
230 inspections. Failure to allow access is grounds for action under the Federal Clean Air Act or  
231 the Washington Clean Air Act.

232  
233 12. Within 90 days of permit issuance Weyerhaeuser NORPAC shall identify operational  
234 parameters and practices that will constitute proper operation of each emission unit in  
235 NORPAC 1 or 2. These operational parameters and practices shall be included in an O&M  
236 manual for the facility. The O&M manual shall be maintained and followed by  
237 Weyerhaeuser NORPAC and shall be available for review by Ecology and EPA. Emissions  
238 that result from a failure to follow the requirements of the O&M manual may be considered  
239 credible evidence that emission violations have occurred. Ecology shall be notified whenever  
240 the manual is updated.

241  
242  
243  
244 Reviewed by:

245  
246  
247  
248 \_\_\_\_\_  
249 Richard B. Hibbard, P.E.  
250 Project Engineer  
251 Air Quality Program  
252 Washington Department of Ecology

\_\_\_\_\_

Date

253  
254  
255 Approved by:

256  
257  
258  
259 \_\_\_\_\_  
260 Mary E. Burg, Program Manager  
261 Air Quality Program  
262 Washington Department of Ecology

\_\_\_\_\_

Date

263  
264

265 **Table 2. NORPAC I & II VOC Emission Factors, Daily and Annual Emissions Rates**

| <b>Equipment</b>           | <b>Estimated Maximum Production Rate (daily)</b> | <b>Estimated Maximum Production Rate (yearly)</b> | <b>Emission Factor</b> | <b>VOC Emissions (Pounds per Day)</b> | <b>VOC Emissions (Tons per Year)</b> |
|----------------------------|--|---|------------------------|---------------------------------------|--------------------------------------|
| TMP # 1                    | Pulp production, 830 (BDMT/day)                  | Pulp production, 271,059 (BDMT/year)              | 1.498 (lb/BDMT)        | 1,243                                 | 203.1                                |
| TMP # 1 Reboiler Down      | Pulp production, 830 (BDMT/day)                  | Pulp production, 13,553 (BDMT/year)               | 0.241 (lb/BDMT)        | 200                                   | 1.6                                  |
| TMP # 2                    | Pulp production, 800 (BDMT/day)                  | Pulp production, 271,059 (BDMT/year)              | 1.498 (lb/BDMT)        | 1,198                                 | 203.1                                |
| TMP # 2 Reboiler Down      | Pulp production, 800 (BDMT/day)                  | Pulp production, 13,553 (BDMT/year)               | 0.241 (lb/BDMT)        | 193                                   | 1.6                                  |
| PM # 1                     | Gross Product, 1,000 (ADMT/day)                  | Gross Product, 270,000 (ADMT/year)                | 1.661 (lb/ADMT)        | 1,661                                 | 224.2                                |
| PM # 2                     | Gross Product, 1,200 (ADMT/day)                  | Gross Product, 353,685 (ADMT/year)                | 1.661 (lb/ADMT)        | 1,993                                 | 293.7                                |
| <b>TOTAL VOC EMISSIONS</b> |  |   |                        | <b>6,488</b>                          | <b>927.3</b>                         |

266  
267 **Table 3. NORPAC I & II CO Emission Factors and Annual Emission Rates**

| <b>Equipment</b>   | <b>Estimated Maximum Production Rate</b> | <b>Emission Factor</b>       | <b>CO Emissions (Tons per Year)</b> |
|--|--|------------------------------|-------------------------------------|
| TMP # 1  | Pulp production, 271,059 (BDMT/year)     | 3.284 (lb/BDMT pulp)         | 445.1                               |
| TMP # 2  | Pulp production, 271,059 (BDMT/year)     | 3.284 (lb/BDMT pulp)         | 445.1                               |
| PM # 1   | 360 (MMcuft/year)                        | 3.45 (lb/MMcuft Natural Gas) | 0.6                                 |
| PM # 2   | 321 (MMcuft/year)                        | 3.45 (lb/MMcuft Natural Gas) | 0.6                                 |
| <b>TOTAL NORPAC 1 &amp; 2 CO Emissions (Tons per Year)</b> |  |                              | <b>891.4</b>                        |