

- 47 NORPAC I project. At that time, SWAPCA's Order of Approval was the only state or local
48 air quality permit or approval required to allow commencement of construction of NORPAC
49 I.
50
- 51 5. NORPAC II essentially duplicated the NORPAC I project. In July 1979, Ecology issued a
52 declaration of significance in regard to the NORPAC II project, referring to the 1977 EIS for
53 the NORPAC I project. NORPAC submitted a Notice of Construction application to
54 SWAPCA in July 1979. On August 23, 1979, SWAPCA issued Order of Approval No. 79-
55 475 allowing construction of the NORPAC II project. At that time, SWAPCA's Order of
56 Approval was the only state or local air quality permit or approval required allowing
57 commencement of construction of NORPAC II.
58
- 59 6. PSD 97-01 was issued on December 9, 1997. The emission limits were based upon the
60 combined production of 540,000 Air Dried Metric Tons (ADMT) of newsprint per year.
61 This permit accounted for 515,000 ADMT of normal brightness paper per year and 25,000
62 ADMT of high brightness paper. These production rates were based on the paper grade
63 production mix anticipated at the time to satisfy future market demand for varying paper
64 basis weight and brightness specifications. Thermo-Mechanical Pulping (TMP) fiber
65 production required to support these paper production levels was projected to be 415,307
66 Bone Dry Metric Tons (BDMT) of normal brightness TMP pulp and 22,750 BDMT of high
67 brightness TMP pulp per year. The permit effectively limited high brightness pulp and paper
68 production as a percentage of total pulp and paper production, and limited total pulp and
69 paper production based on projected grade basis weight mix.
70
- 71 7. PSD 97-01, Amendments 1 and 2 were issued on March 25, 2004 and April 24, 2004,
72 respectively. PSD 97-01, Amendment 2 was an administrative amendment to PSD 97-01,
73 Amendment 1. The two amendments allowed for operating flexibility to produce increased
74 volumes of high-brightness and high basis weight paper grades. These grades were allowed
75 to represent up to 100% of total production. Annual potential production rates for the highest
76 production rate grades were 542,117 BDMT/year of TMP pulp and 623,685 ADMT/year of
77 paper. Emission limits were based on these maximum potential production rates, rather than
78 on the projected actual production rates for the grade mix anticipated to meet future market
79 demand. Ecology found that the project was not a "major modification" per 40 CFR Part
80 52.21 because there was no significant net emissions increase of any regulated PSD
81 pollutant. The emissions of all other air pollutants from the project were subjected to new
82 source review by Ecology's Industrial Section.
83
- 84 8. Today's permitting action is a change in conditions as follows:
85
- 86 8.1 Update volatile organic compound (VOC) and carbon monoxide (CO) emission factors
87 to incorporate the results of 2008 and 2009 source testing at the NORPAC facility.
88 This round of source testing showed that implementation of various energy
89 conservation projects yielded significant emission reductions.
90

- 91 8.2 Revise VOC and CO emission limits using updated emission factors and revised
92 production projections for thermo-mechanical pulping and paper production. Emission
93 limits for VOC and CO are reduced by more than 60% each from limits in the 2004
94 amended permit. This equates to a reduction in allowable emissions of about 600 tons
95 per year for VOC and 575 tons per year for CO.
96
- 97 8.3 Revise requirements for source testing for purposes of verifying the reasonableness of
98 emission factors. This revision allows for a reduced testing frequency from once every
99 three years to once every five years if two consecutive source tests indicate emission
100 factor changes within +/- 20% of the 2008-2009 emission rates.
101
- 102 8.4 Update estimated maximum production rates. NORPAC I and II production rates for
103 highest production grades will total up to 748,980 BDMT/year of pulp and 762,850
104 ADMT/year of paper. This maximum production capacity is based on a calculated
105 daily maximum pulp production rate, 365 day/year operation, and a 95% paper machine
106 operating rate.
107
- 108 9. The Weyerhaeuser NR, Longview mill (consisting of a kraft pulp and paper mill, NORPAC,
109 and wood products manufacturing) qualifies as a major source of air pollutants because it is
110 listed as a major stationary source under Title 40, Code of the Federal Regulations, Part 51,
111 Section 166, paragraph (b)(1)(i)(a) and has the potential to emit more than 100 tons per year
112 of several pollutants.
113
- 114 10. The physical and process changes made to NORPAC I and II since PSD 97-01, Amendment
115 2 was issued, do not qualify as a "major modification" because the changes did not result in a
116 significant net emissions increase of any regulated PSD pollutant.
117
- 118 11. The requested revisions to PSD 97-01, Amendment 2, were subject to public review and
119 comment because Weyerhaeuser is requesting a relaxation of source testing requirements. A
120 public notice was published in the Daily News newspaper on June 24, 2010. The public
121 comment period closed on July 24, 2010.
122
- 123 12. The site of the project is within an area designated Class II for the purposes of PSD
124 evaluation under 40 CFR 52.21 as amended through January 1, 1995.
125
- 126 13. The site of the project is within an area, which is in attainment for all pollutants regulated by
127 state and national ambient air quality standards.
128
- 129 14. A Best Available Control Technology (BACT) analysis was not performed as part of this
130 amendment because there was no net emissions increase in PSD pollutants or relaxation of
131 any emission limit. The revised permit will continue to require BACT, as defined at the time
132 of the original PSD permit, for each new or modified emission unit approved by the original
133 PSD permit.
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- 135 15. This permit supersedes PSD 97-01, Amendment 2, issued on April 24, 2004.

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16. Visibility impairment will not be perceptibly increased in any Class I area as a result of this permit revision.
 17. Allowable emissions increases and decreases as a result of this permit revision, in conjunction with all other applicable emissions increases or reductions (including secondary emissions), will not cause or contribute to air pollution in violation of:
 - 17.1 Any national ambient air quality standard.
 - 17.2 Any applicable maximum allowable increase over the baseline concentration in any area.
 18. No noticeable effect on industrial, commercial, or residential growth in the Longview area is anticipated due to the project.
 19. On June 8, 2010, Ecology was notified by the US EPA that the US EPA has satisfied its obligations under the Endangered Species and Magnuson-Stevens Acts relative to this permitting action.
 20. Ecology finds that all requirements for approval of the PSD application are satisfied and that as approved below, the revised permit will continue to comply with all applicable federal new source performance standards. Approval of the PSD application is granted subject to the following conditions.

PSD APPROVAL CONDITIONS

- 160 1. VOC emissions from NORPAC I and II units shall not exceed 2,007 pounds per day when
161 averaged over 30 consecutive days.
162
163 1.1. Compliance with the daily VOC emission limit shall be assured by computing daily
164 VOC emission rates from the NORPAC I and II units.
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166 1.2. Daily VOC emission rates shall be computed by summing daily production rates
167 multiplied by the appropriate daily emission factors contained in *Table 1, NORPAC I &*
168 *II VOC Emission Factors* of this permit. Such calculations shall account for all
169 operations at each operating condition during each day of operation.
170
171
172 2. VOC emissions from the NORPAC I and II units shall not exceed 311.0 tons per year when
173 averaged over any consecutive 12-month period.
174
175 2.1. Compliance with the annual emissions limit shall be assured by the summation of
176 monthly-calculated emission rates over the calendar year.
177
178 2.2. Monthly emissions shall be calculated by multiplying monthly TMP and Paper Machine
179 production values under each operating condition by the appropriate emission factors
180 from *Table 1, NORPAC I & II VOC Emission Factors*, then summing the products.
181 Such calculations shall account for all operations at each operating condition during the
182 calendar month.
183
184 3. CO emissions from the NORPAC I and II units shall not exceed 307.6 tons per year when
185 averaged over any consecutive 12-month period.
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187 3.1. Compliance with the annual emissions limit shall be assured by the summation of
188 monthly-calculated emission rates over the calendar year.
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190 3.2. Monthly emissions shall be calculated by multiplying monthly TMP and paper machines
191 production values under each operating condition by the appropriate emission factors
192 from *Table 2, NORPAC TMP I & II CO Emission Factors* of this permit, then summing
193 the products. Such calculations shall account for all operations at each operating
194 condition during the calendar month.
195
196 4. Weyerhaeuser shall conduct source tests of the NORPAC I and II emission units for VOC
197 and CO. The source testing shall be performed by an independent testing firm.
198
199 4.1. The emission points tested shall include those tested in the 2008-2009 emission
200 evaluation program and serve as the basis for the refinement of emission factor
201 summaries in Tables 1 and 2 of this permit.
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- 203 4.1.1. On a case-by-case basis, Ecology may approve the exclusion of certain emission
204 points from a specific source testing program, based on safety, technical or other
205 emission unit-specific factors.
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- 207 4.1.2. On a case-by-case basis, Ecology may approve the exclusion from a specific
208 source testing program those emission units with estimated maximum emissions
209 less than 2 tons per year of VOC and less than 5 tons per year of CO, based on
210 results of the most recent source test.
211
- 212 4.1.3. Weyerhaeuser shall demonstrate to the satisfaction of Ecology why some
213 emission points should not be tested during any particular source testing program.
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- 215 4.2. Further source testing shall be conducted in 2012 and 2015. If either the 2012 or 2015
216 source testing indicates a significant deviation in the emission factors ($\pm 20\%$ from the
217 2008-2009 emission factors), additional source testing shall be conducted once every
218 three years commencing in 2018. Otherwise, additional source testing shall be
219 conducted once every five years commencing in 2020.
220
- 221 5. The objective for this source testing is to verify the reasonableness of the emission factors
222 developed in the 2008-2009 emission evaluation program. Should there be a significant
223 deviation in the emission factors developed from subsequent testing ($\pm 20\%$), either Ecology
224 or Weyerhaeuser may initiate a technical discussion on the need to amend the emission
225 factors presented in Tables 1 and 2 of this permit, or Ecology may require amendment of the
226 emission factors in Tables 1 and 2.
227
- 228 6. All source tests shall be conducted in accordance with the appropriate methods set forth in
229 Title 40 Code of the Federal Regulations, Part 60, Appendix A as amended through July 1,
230 1996, or later.
231
- 232 6.1. Each performance test shall consist of three separate runs using the applicable test
233 method, with the overall test result to be an arithmetic average of the results of the three
234 test runs, in accordance with 40 CFR 60.8(f).
235
- 236 6.2. A test plan shall be submitted for Ecology's approval at least 30 days prior to the testing.
237
- 238 6.3. The source tests and test methods shall include, but may not be limited to, the following:
239
- 240 6.3.1. Sampling location and in-stack points as measured by Reference Method 1.
241 6.3.2. Stack gas velocity and volumetric flow rate as measured by Reference Method 2.
242 6.3.3. Carbon monoxide as measured by Reference Method 10.
243 6.3.4. Volatile organic compounds, as measured by Reference Methods 25, 25A, or
244 25B, modified as necessary to handle high moisture content. Any moisture
245 removed as a result of such modification shall be analyzed for VOCs, which shall
246 be accounted for.

- 247 6.4. Any deviation from the above test methods must be agreed to by Ecology in the test
248 plan.
249
- 250 7. Weyerhaeuser shall maintain records of emissions calculations, which will include:
251
- 252 7.1. The quantities of high brightness and normal brightness TMP pulp and paper produced
253 during the month;
254
- 255 7.2. The approximate percentages of wood specie types pulped during the month; and
256
- 257 7.3. The appropriate emission factors from Tables 1 and 2.
258
- 259 7.4. Weyerhaeuser shall report to Ecology, in a manner approved by Ecology, the monthly
260 cumulative total VOC and CO emissions, in units of the standard, in the “monthly air
261 report,” in accordance with the requirements of WAC 173-401-615.
262
- 263 8. Each occurrence of calculated emissions in excess of limits contained in this PSD approval
264 shall be reported at least monthly within thirty days of the end of each calendar month to
265 Ecology. The information shall include, but not limited to, the following:
266
- 267 8.1. The time of the occurrence.
268 8.2. Magnitude of the emission or process parameters excess.
269 8.3. The duration of the excess.
270 8.4. The probable cause.
271 8.5. Any corrective actions taken or planned.
272
- 273 9. Any activity that is undertaken by Weyerhaeuser or others, in a manner that is inconsistent
274 with the application and this determination, shall be subject to Ecology enforcement under
275 applicable regulations. Nothing in this determination shall be construed so as to relieve
276 Weyerhaeuser of its obligations under any state, local, or federal laws or regulations.
277
- 278 10. Access to the source by the U.S. Environmental Protection Agency (EPA), Ecology, or local
279 regulatory personnel shall be permitted upon request for the purpose of compliance assurance
280 inspections. Failure to allow access is grounds for action under the Federal Clean Air Act or
281 the Washington Clean Air Act.
282
- 283 11. Weyerhaeuser NORPAC shall maintain and follow an O&M manual for the facility. The
284 O&M manual shall identify operational parameters and practices that will constitute proper
285 operation of each emission unit in NORPAC I or II. The O&M manual shall be available for
286 review by Ecology and EPA. Emissions that result from a failure to follow the requirements of
287 the O&M manual may be considered credible evidence that emission violations have occurred.
288 Ecology shall be notified whenever the manual is updated.
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291 Reviewed by:

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296 _____
David Ogulei, Ph.D., P.E.
297 Project Engineer
298 Air Quality Program
299 Washington Department of Ecology

_____ Date

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302 Approved by:

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307 _____
Stuart A. Clark, Program Manager
308 Air Quality Program
309 Washington Department of Ecology

_____ Date

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313 **TABLE 1 - NORPAC I & II VOC EMISSION FACTORS, DAILY AND ANNUAL EMISSION RATES**

Source	Estimated Maximum Production Rate (daily)	Estimated Maximum Production Rate (yearly)	VOC Emission Factor	VOC Emissions (lb/day)	VOC Emissions (tons/year)
TMP #1 Process Vents Reboiler Online	Pulp production, 1080 (BDMT/day)	Pulp production, 374,490 (BDMT/year)	0.340 (lb C/BDMT)	367	63.7
TMP #1 Process Vents Reboiler Down	Pulp production, 0 (BDMT/day)	Pulp production, 0 (BDMT/year)	0.319 (lb C/BDMT)	0	0.0
TMP #2 Process Vents Reboiler Online	Pulp production, 1080 (BDMT/day)	Pulp production, 374,490 (BDMT/year)	0.340 (lb C/BDMT)	367	63.7
TMP #2 Process Vents Reboiler Down	Pulp production, 0 (BDMT/day)	Pulp production, 0 (BDMT/year)	0.319 (lb C/BDMT)	0	0.0
TMP Pressure Relief Valves B&C Open	Pulp production, 1080 (BDMT/day)	Pulp production, 149,796 (BDMT/year)	0.124 (lb C/BDMT)	268	9.3
PM 1	Gross Product, 1,000 (ADMT/day)	Gross Product, 346,750 (ADMT/year)	0.457 (lb C/ADMT)	457	79.2
PM 2	Gross Product, 1,200 (ADMT/day)	Gross Product, 416,100 (ADMT/year)	0.457 (lb C/ADMT)	548	95.1
Total NORPAC I & II VOC Emissions				2,007	311.0

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315 **TABLE 2 - NORPAC I & II CO EMISSION FACTORS AND ANNUAL EMISSION RATES**

Source	Estimated Maximum Production Rate (yearly)	CO Emission Factor	CO Emissions (tons/year)
TMP 1	Pulp production, 374,490 (BDMT/year)	0.805 (lb/BDMT)	150.7
TMP 2	Pulp production, 374,490 (BDMT/year)	0.805 (lb/BDMT)	150.7
PM 1	432 (MMcuFt/year)	15.2 (lb/ MMcuFt Natural Gas)	3.3
PM 2	385 (MMcuft/year)	15.2 (lb/ MMcuFt Natural Gas)	2.9
Total NORPAC I & II CO Emissions (Tons/yr)			307.6

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