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AIR OPERATING PERMIT 000012-4

In compliance with the provisions of The State of Washington

Clean Air Act Chapter 70.94 Revised Code of Washington

**Weyerhaeuser NR Company
P.O. Box 188
Longview, Washington 98632**

Including

**North Pacific Paper Corporation
P.O. Box 2069
Longview, Washington 98632**

Are authorized to operate in accordance with the terms and conditions
of this permit.

Issued by:

State of Washington
DEPARTMENT OF ECOLOGY
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Table of Contents

INTRODUCTION AND LEGAL AUTHORITY	3
EMISSION UNIT SPECIFIC REQUIREMENTS [WAC 173-401-600]	4
North Pacific Paper Corporation (NORPAC).....	4
A. NORPAC ONP Baghouse	4
NORPAC I and II.....	4
“NORPAC I” refers to Paper Machine 1 and TMP Mill 1, including the first four TMP refiner lines, “NORPAC II” refers to Paper Machine 2 and TMP Mill 2, including four additional TMP refiner lines. A ninth refiner line was installed separately from the NORPAC I or NORPAC II projects, which can split production between TMP Mill 1 and TMP Mill 2. PSD 97-01 Amendment 2 regulates VOC and CO emissions from all these emission units.....	4
Principal sources of emissions listed in PSD 97-01 Amendment 2 are: Startup Scrubber Vent; Bleach Tower Exhausts (2); TMP Decker Exhausts; No. 2 Spray Condenser Exhaust; Paper Machine No. 1 Vacuum Vent, Wet End Vents and Exhausts, and Dryer Vents; and Paper Machine No. 2 Vacuum Vent, Wet End Vents and Exhausts, and Dryer Vents.	5
NORPAC III	6
KRAFT MILL.....	6
B. Fiberline (Digester, Pulp Washing and Screening, Oxygen Delignification, and Bleach Plant Systems), No. 7 Multiple Effect Evaporator (#7 MEE), No. 8 Multiple Effect Evaporator (#8 MEE), High Solids Crystallizer (HSC), and Steam Stripper System.....	6
C. Volatile Organic Liquid Storage Vessels. (Reserved – Currently Inapplicable).....	17
D. East Powerhouse Boilers (Officially Shutdown in 1998).....	17
E. Hogged Fuel Boiler #11	17
F. Package Boiler (shutdown on Feb 28, 2000).....	19
G. Power Boilers 6, 7, 9.....	19
H. Recovery Furnace No. 10 (as measured in the main stack).....	19
I. Smelt Dissolver Tank Vent.....	22
J. Non-condensable Gas (NCG) Collection & Treatment.....	24
K. Lime Kiln.....	25
L. Slaker Vent Scrubber Stack	26
M. Planer Mill & Lumber Drying Kilns.....	27
N. Saw Mill.....	28
O. NESHAP REQUIREMENTS	28
Startup, Shutdown, and Malfunction (SSM) Plan, Recordkeeping, and Reporting Requirements.	28
P. NESHAP Subpart DDDDD, Industrial, Commercial & Institutional Boiler & Process Heaters – “Boiler MACT” – Vacated (Reserved).....	30
Q. COMPLIANCE ASSURANCE MONITORING (CAM)	30
Q.1 Recovery Boiler (Boiler #10) CAM Requirements	30
Q.2 Lime Kiln CAM Requirements.....	31
Q.3 Hog Fuel Boiler (Boiler #11) CAM Requirements:	31
Q.4 Quality Assurance and Control Procedures.....	32
Q.5 Obligation to monitor and data availability requirement.....	32
Q.6 Excursions.....	32
Q.7 Response to an excursion.....	32
Q.8 Quality Improvement Plan (QIP).....	32
Q.9 Reporting.....	32
Q.10 Recordkeeping.....	33
NSPS GENERAL REQUIREMENTS	34
FACILITY-WIDE GENERAL REQUIREMENTS [WAC 173-401-600]	35

MONITORING, RECORDKEEPING & REPORTING.....	37
STANDARD TERMS & CONDITIONS.....	39
PERMIT SHIELD.....	41
Appendix A - Permit Shield/Inapplicable Requirements.....	42
Appendix B - Definitions of Abbreviations Used in Permit.....	45
Appendix C - Algorithms for Emissions Calculation.....	47
Appendix D – Orders, Permits, and Operational Practices.....	49

INTRODUCTION AND LEGAL AUTHORITY

This Air Operating Permit is authorized under the Operating Permit Regulation, Chapter 173-401 WAC. The provisions of this permit describe the emissions limitations, operating requirements, monitoring and recording requirements, and reporting frequencies for the permitted source.

Weyerhaeuser NR Company (Weyerhaeuser NR) requires a Title V Air Operating Permit for its Longview facility because these facilities emit or has the potential to emit, one hundred tons per year or more of one or more air pollutants (WAC 173-401-300(1)). North Pacific Paper Corporation (NORPAC) is included in this permit because it is a 50/50 joint venture between Weyerhaeuser NR and Nippon Paper Corporation, is physically contiguous to the Weyerhaeuser NR facility, and is under common control of Weyerhaeuser NR. The terms “affected facility” or “permitted facility” as used in this permit refers to Weyerhaeuser NR, and includes NORPAC.

During the drafting of this permit Ecology has attempted to incorporate requirements using the exact language of the law, regulation, or order. In some cases, this has not been possible. Where there is a difference in language, this difference is presented in this permit only for clarification of the underlying requirement. The legal requirement remains the underlying applicable requirement cited in the “Applicable Requirements” column of the tables and the citations contained in brackets at the end of each requirement. Any conflict between the permit and an underlying requirement will be resolved by referring to the cited applicable requirement. Unless otherwise stated, the effective date of referenced regulations or statutes is that of the provision in effect on the date of permit issuance. Compliance with underlying requirements shall be demonstrated using the methods specified in this permit.

The Title V Air Operating Permit consists of all parts of this assembled document including all footnotes and Appendices, but does not include the accompanying Support Document, or the Title V permit application materials submitted by Weyerhaeuser NR Company.

The definitions of terms contained in WAC 173-401-200, and as defined in all referenced regulations, apply to this permit unless otherwise defined in the permit.

Any federal test method referenced, unless specifically stated otherwise within the body of the permit, is that which is contained in 40 CFR Part 60, Appendix A. Any state test method referenced, unless specifically stated otherwise within the body of the permit is that which is contained in the “Ecology Source Test Manual” as of July 12, 1990.

EMISSION UNIT SPECIFIC REQUIREMENTS [WAC 173-401-600]

Weyerhaeuser NR requires a Title V Air Operating Permit because it emits or has the potential to emit, one hundred tons per year or more of one or more air pollutants (WAC 173-401-300(1)). The emission units identified in conditions A through Q are subject to the emission unit specific requirements set forth in conditions A through Q. These units are also subject to the facility-wide applicable requirements. The associated monitoring, record keeping and reporting requirements for these limits are in the Facility-Wide section of this permit. Unless specified otherwise, the basis of authority for the type and frequency of monitoring imposed in conditions A through Q is WAC 173-401-615.

The reference test method (RM) or compliance determination algorithm is identified under the column titled, "Monitoring and Reporting." The identified reference test method or compliance determination algorithm is that compliance determination method which is intended to be the default or absolute determinant of compliance. It may or may not also be the method by which ongoing compliance is indicated.

Appendix C contains the emission estimate algorithms. These algorithms set forth the manner by which emissions are calculated for those requirements for which the RM itself does not directly result in an emission estimate. Unless otherwise required by the applicable requirement, minor modifications to the test method may be used with the advanced approval of Ecology. Also the Permittee may use an equivalent alternative method with written approval from Ecology. Failure to obtain prior written approval for any test changes may invalidate the use of the test result(s) for Title V compliance purposes.

The Permitted facility includes emission units that are subject to EPA New Source Performance Standards at 40 CFR Part 60 Subpart A, Subpart BB, and Subpart D. These standards are set forth as generic stand-alone conditions in the section of the permit titled "NSPS General Requirements."

Emission units subject to NSPS requirements cross-reference the specific applicable NSPS standards.

North Pacific Paper Corporation (NORPAC)

A. NORPAC ONP Baghouse

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
A.1	Particulate	0.005 gr/dscf	At least every 5 years using reference test method EPA Method 5 (front half) or Method 17. Conduct a minimum of three test runs. Submit annual emissions estimate.	Order No. DE 98AQ-I046
A.2	Operations	Not applicable	Maintain log of baghouse O&M activities.	Order No. DE 98AQ-I046

NORPAC I and II

"NORPAC I" refers to Paper Machine 1 and TMP Mill 1, including the first four TMP refiner lines, "NORPAC II" refers to Paper Machine 2 and TMP Mill 2, including four additional TMP refiner lines. A ninth refiner line was installed separately from the NORPAC I or NORPAC II projects, which can split production between TMP Mill 1 and TMP Mill 2. PSD 97-01 Amendment 2 regulates VOC and CO emissions from all these emission units.

Principal sources of emissions listed in PSD 97-01 Amendment 2 are: Startup Scrubber Vent; Bleach Tower Exhausts (2); TMP Decker Exhausts; No. 2 Spray Condenser Exhaust; Paper Machine No. 1 Vacuum Vent, Wet End Vents and Exhausts, and Dryer Vents; and Paper Machine No. 2 Vacuum Vent, Wet End Vents and Exhausts, and Dryer Vents.

However, some of these emission points have been eliminated since issuance of PSD 97-01 Amendment 2 in 2004. The Startup Scrubber Vent and Bleach Tower Exhausts have been enclosed and re-routed to the Atmospheric Heat Recovery System, with uncondensed gases from these sources now emitted via the Spray Condenser Exhaust, resulting in reduced VOC and TAP emissions.

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
A.3	VOCs	6,488 lbs/day averaged over 30 consecutive days	Compliance with the daily VOC limit shall be assured by computing daily VOC emission rate from the NORPAC I and II units. 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 PSD 97-01, Amendment 2. Such calculations shall account for all operations at each operating condition during each day of operation.	PSD-97-01 Amendment 2, Condition 1.
A.4	VOCs	927.3 tons VOC per year averaged over any consecutive 12 month period	Compliance with the annual emissions limit shall be assured by the summation of monthly-calculated emission rates over the calendar year. Monthly emission shall be calculated by multiplying monthly TMP and Paper Machine production values under each operating condition by the appropriate emission factors from PSD 97-01, Amendment 2, Table 2, then summing the products. Such calculations shall account for all operations at each operating condition during the calendar month.	PSD-97-01 Amendment 2, Condition 2
A.5	CO	891.4 tons CO per year averaged over any consecutive 12 month period	Compliance with the annual emissions limit shall be assured by the summation of monthly-calculated emission rates over the calendar year. Monthly emission shall be calculated by multiplying monthly TMP and Paper Machine production values under each operating condition by the appropriate emission factors from PSD 97-01, Amendment 2, Table 3, then summing the products. Such calculations shall account for all operations at each operating condition during the calendar month.	PSD-97-01 Amendment 2, Condition 3

A.6 The Permittee shall conduct source tests of the NORPAC I and II units for VOC and CO every three years, to be performed by an independent testing firm per Conditions 4, 5 and 6 of PSD -97-01 Amendment 2.

A.7 Per Condition 7 of PSD-97-01 Amendment 2, the Permittee shall maintain records of emissions calculations, which will include production rates, the quantities of high brightness and normal brightness pulp produced during the month, the approximate percentages wood species types pulped during the

month, the number of hours each month that pulp was produced while the Reboiler was down and the appropriate emission factors from Tables 1 and 2 of PSD-97-01. Weyerhaeuser shall report the monthly cumulative total VOC and CO emissions, in units of the standard, to Ecology in the “monthly air report.”

A.8 The Permittee shall report each occurrence of excess emissions in accordance with Condition 8 of PSD-97-01 Amendment 2.

NORPAC III

“NORPAC III” refers to Paper Machine 3 and the Deinking Facility.

A.9 The Permittee shall maintain records of gross production (ADMT) from, and natural gas (cubic feet) consumed by, #3 Paper Machine Air Cap Dryer System and use as applicable in estimating air contaminant emission rates per Condition 4 of Order DE 97AQ-I041.

Weyerhaeuser NR Company

KRAFT MILL

B. Fiberline (Digester, Pulp Washing and Screening, Oxygen Delignification, and Bleach Plant Systems), No. 7 Multiple Effect Evaporator (#7 MEE), No. 8 Multiple Effect Evaporator (#8 MEE), High Solids Crystallizer (HSC), and Steam Stripper System

The following emission units were new or reconstructed during the 1995 Kraft Modernization Project, and are subject to B.1 through B.4: Fiberline (Digester, Pulp Washing and Screening, Oxygen Delignification, and Bleach Plant Systems), #8 MEE, HSC, and Steam Stripper System.

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
B.1	CO	349 lbs/hour and 300 tons per year (measured at bleach plant scrubber stack and oxygen delignification vent)	The Reference Test Method and initial compliance determinant is EPA RM 10 at the bleach plant scrubber outlet and oxygen delignification vent.	PSD 92-03 amendment 4 Condition 1, Order DE 92AQ I069
B.2	TRS	5.0 ppmdv @ 10% O2, 12 hour avg.	Reference Test Method and compliance indicated by continuous collection and combustion of collected sources.	40 CFR 60.283(a)(1) for limit and 40 CFR 60.284 for monitoring

B.3 The preceding fiberline units are subject to the NSPS requirements identified in the stand-alone generic NSPS section of this permit.

The following **state-only** requirement is not federally enforceable under the federal Clean Air Act and is applicable to **digester, multiple-effects evaporators, and condensate stripper system.**

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
B.4	TRS	Treat non-condensable gas (NCG) to reduce TRS emission equal to reduction achieved by thermal oxidation in a lime kiln; install a backup treatment system	Record number of hours system vents each month. Report periods of untreated venting.	WAC 173-405-040(4)

The following emission unit specific requirements for the Kraft Mill derive from the NESHAP for the Pulp and Paper Industry (Subpart S).

Kraft Mill – LVHC System

LVHC system includes: Kamyrdigester System (chip steaming vessel, impregnation vessel, digester, flash tanks, flash steam condensers), #7 MEE, #8 MEE, HSC, and Steam Stripper System.

The Chip Bin is regulated under Subpart S as part of the Digester System only when flash steam is used in the Bin for chip presteaming. However, the Chip Bin vent gas stream is physically high in volume and low in HAP concentration, but high in oxygen. As such it is incompatible for collection in the mill’s LVHC system, and is instead collected for control in the mill’s HVLC NCG system. Accordingly, LVHC emissions from the Chip Bin are subject to the excess emissions limitation for a combined LVHC and HVLC control system (40 CFR 443(e)(3)), which are functionally equivalent to the HVLC System requirements listed below.

	Parameter	Emission Unit	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
B.5	Kraft Mill (LVHC System)	LVHC HAP: General	Enclose, collect, and treat all vent gases from LVHC equipment systems.	Record all periods during which LVHC gases were not collected and treated each month. Report periods of such nontreatment monthly.	40 CFR 63.443(c)
B.6	Kraft Mill (LVHC System)	LVHC HAP: Collection	Collect LVHC gases in closed-vent system. Maintain enclosures in closed position.	Perform monthly visual inspection of enclosure openings as specified in 40 CFR 63.453(k).	40 CFR 63.453(k)(1)
B.7	Kraft Mill (LVHC System)	LVHC HAP: Collection	Collect LVHC gases in closed-vent system; visual inspection for visible evidence of defects.	Perform monthly visual inspection of closed-vent system components as specified in 40 CFR 63.457(k).	40 CFR 63.453(k)(2)
B.8	Kraft Mill (LVHC System)	LVHC HAP: Collection	Collect LVHC gases in closed-vent system; annual leak testing.	Conduct annual performance tests on closed vent systems using the procedures in 40 CFR 63.457(d)	40 CFR 63.453(k)(3)

B.9	Kraft Mill (LVHC System)	LVHC HAP: Collection	Timely repair of closed-vent system leaks and defects found during monthly inspections or annual testing.	If an inspection identifies visible defects, or if enclosure openings are not maintained at negative pressure, then the following corrective actions shall be taken: Make a first effort to repair or correct the closed vent system as soon as practicable, but no later than five calendar days after the problem has been identified. Complete the repair or corrective action no later than 15 days after the problem is identified. Delay of repair or corrective action is allowed if the repair or corrective action is technically infeasible without a process unit shutdown or if it is determined that the emissions resulting from the immediate repair would be greater than the emission likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process shutdown.	40 CFR 63.453(k)(6) for corrective action. 40 CFR 63.453(b)&(c) for operating requirements.
B.10	Kraft Mill (LVHC System)	LVHC HAP: Treatment	Treat LVHC vent gases to reduce total HAP emissions in the NCG thermal oxidizer, lime kiln, #10 Boiler (recovery boiler), or #11 Boiler (hog fuel boiler).	Record all periods during which LVHC gases are combusted in each control device. Venting of LVHC gases from main bypass vent valves for periods in excess of one percent of total operating time (excluding periods of start-up, shutdown, or malfunction) shall constitute a violation of the applicable standard.	40 CFR 63.443(d) for treatment options. 40 CFR 63.443(e)(1) for determination of violation.
B.11	Kraft Mill (LVHC System)	LVHC HAP: Treatment	When combusting LVHC in the thermal oxidizer: Reduce total HAP concentration at the outlet of the thermal oxidizer to 20 parts per million or less by volume, corrected to 10 percent oxygen on a dry basis. Continuous compliance to be demonstrated by maintaining a thermal oxidizer combustion temperature of 1350 F°, as a 12-hour block average.	Continuously monitor thermal oxidizer combustion temperature while combusting LVHC. Report any deviations from the temperature operating requirement in the monthly report.	40 CFR 63.443(d)(2)

Kraft Mill – HVLC System

The HVLC system includes the following equipment: Pressure Diffusion Washer System; Brownstock Press Washer System; and Oxygen Delignification System.

The Atmospheric Chip Bin vent is regulated by Subpart S as an LVHC when using digester flash steam for chip presteaming. However, due to its physical characteristics, the Chip Bin vent is collected for control in the mill's HVLC collection system and not in the LVHC collection system. Therefore, the LVHC emissions from the Chip Bin are subject to the excess emissions limitation for a combined LVHC and HVLC control system (40 CFR 443(e)(3)), which are functionally equivalent to the HVLC System requirements listed below.

Several black liquor tank vents are collected for control in the mill's HVLC collection system, but these black liquor tank vents are not subject to Subpart S.

	Parameter	Emission Unit	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
B.1 2	Kraft Mill (HVLC System)	HVLC HAP: General	No later than April 17, 2006: Enclose, collect, and treat all vent gases from HVLC equipment systems. The HVLC system includes the following equipment: Diffusion Washer Filtrate Tank; Brownstock Pres Washer System; and Oxygen Delignification System.	Record all periods during which HVLC gases were not collected and treated each month. Report periods of such nontreatment monthly.	40 CFR 63.443(c)
B.1 3	Kraft Mill (HVLC System)	HVLC HAP: Collection	No later than April 17, 2006: Collect HVLC gases in closed-vent system. Maintain enclosures in closed position.	Perform monthly visual inspection of enclosure openings as specified in 40 CFR 63.453(k).	40 CFR 63.453(k)(1)
B.1 4	Kraft Mill (HVLC System)	HVLC HAP: Collection	No later than April 17, 2006: Collect LVHC gases in closed-vent system; and visual inspection for visible evidence of defects.	Perform monthly visual inspection of closed-vent system components as specified in 40 CFR 63.453(k).	40 CFR 63.453(k)(2)
B.1 5	Kraft Mill (HVLC System)	HVLC HAP: Collection	No later than April 17, 2006: Collect LVHC gases in closed-vent system; and annual leak testing.	Conduct annual performance tests on closed vent systems using the procedures in 40 CFR 63.457(d)	40 CFR 63.453(k)(3)

	Parameter	Emission Unit	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
B.16	Kraft Mill (HVLC System)	HVLC HAP: Collection	No later than April 17, 2006: Timely repair of closed vent system leaks and defects found during monthly inspections or annual testing.	If an inspection identifies visible defects or if enclosure openings are not maintained at negative pressure, then the following corrective actions shall be taken: Make a first effort to repair or correct the closed vent system as soon as practicable, but no later than five calendar days after the problem has been identified. Complete the repair of corrective action no later than 15 days after the problem is identified. Delay of repair or corrective action is allowed if the repair or corrective action is technically infeasible without a process unit shutdown, or if it is determined that the emissions resulting from the immediate repair would be greater than the emission likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process shutdown.	40 CFR 63.453(k)(6) for corrective action. 40 CFR 63.453(b) & (c) for operating requirements.
B.17	Kraft Mill (HVLC System)	HVLC HAP: Treatment	No later than April 17, 2006: Treat LVHC vent gases to reduce total HAP emissions in the NCG thermal oxidizer, Recovery Boiler (#10 boiler), or Hog Fuel Boiler (#11 boiler).	Record all periods during which HVLC gases are combusted in each control device. Venting of HVLC gases from main bypass vent valves for periods in excess of 4 percent of total operating time (excluding periods of start-up, shutdown, or malfunction) shall constitute a violation of the applicable standard.	40 CFR 63.443(d) for treatment options. 40 CFR 63.443(e)(1) for determination of violation.
B.18	Kraft Mill (HVLC System)	HVLC HAP: Treatment	When combusting LVHC in thermal oxidizer: Reduce total HAP concentration at the outlet of the thermal oxidizer to 20 parts per million or less by volume, corrected to 10 percent oxygen on a dry basis. Continuous compliance to be demonstrated by maintaining a thermal oxidizer combustion temperature of 1350 F°, as a 12-hour block average.	Continuously monitor thermal oxidizer combustion temperature while combusting HVLC. Report any deviations from the temperature operating requirement in the monthly report.	40 CFR 63.443(d)(2)

B.19	Kraft Mill (HVLC System)	HVLC HAP: Treatment	No later than April 17, 2006: When combusting LVHC in the Recovery Boiler (#10 boiler) or Hog Fuel Boiler (#11 boiler); introduce the HAP emission stream into the flame zone.	No monitoring required if HVLC burner is located in the flame zone. Safety interlocks required to prevent introducing HVLC unless a flame is present.	40 CFR 63.443(d)(4)
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Kraft Mill – Pulping Condensate System

Subpart S regulates “named” pulping condensate streams which for this facility include: Fiberline primary condensates (flash steam condensates); Fiberline foul condensate (turpentine system underflow); HSC foul, hot well, and surface condenser condensates; #7 MEE vacuum pump and hot well condensates; #8 MEE surface condenser condensate; LVHC condensate; and HVLC condensates.

	Parameter	Emission Unit	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
B.20	Kraft Mill (Kraft Pulping Condensate System)	Kraft Pulping Condensate HAP: General	Collect and control HAP emissions from regulated pulping condensates to comply with 40 CFR 63.446.	Subpart S regulated “named” pulping condensate streams include: Fiberline primary condensates (flash steam condensates); Fiberline foul condensate (turpentine system underflow); HSC foul, hot well, and surface condenser condensates; #7 MEE vacuum pump and hot well condensates; #8 MEE surface condenser condensate; LVHC condensate; and HVLC condensates.	40 CFR 63.446
B.21	Kraft Mill (Kraft Pulping Condensate System)	Kraft Pulping Condensate HAP: Collection & Control Requirement Overview	Collect and control condensates from the applicable equipment systems named such that the total collected HAP mass contains 11.1 pounds or more per ton of oven dried pulp, and the total HAP mass controlled is 10.2 pounds or more per ton of oven dried pulp.	Record Kraft pulp production (in oven dry tons of unbleached pulp exiting the oxygen delignification process). Calculate and record the mass of methanol in the stripper liquid product stream sent to the thermal oxidizer for destruction, in the combined condensates collected for recycle, and in the combined condensates controlled by recycle to closed vent pulping systems, to determine total mass of methanol collected and controlled.	40 CFR 63.446(b) & (c)(3)
B.22	Kraft Mill (Kraft Pulping Condensate System)	Kraft Pulping Condensate HAP: Monitoring Collection to Thermal Destruction	Monitor the mass of HAP (methanol) collected to the Foul Condensate Stripper that is also controlled by combustion in the thermal oxidizer.	Continuously monitor and record the mass flow of methanol from the foul condensate stripper to the thermal oxidizer, using the CMS and calculation procedures established during the Initial Performance Test.	40 CFR 63.446

B.23	Kraft Mill (Kraft Pulping Condensate System)	Kraft Pulping Condensate HAP: Monitoring Collection for Recycle	Monitor the mass of HAP (methanol) collected to the Combined Condensate Tank prior to recycle in equipment specified in 40 CFR 63.443(a) meeting the requirements of 40 CFR 63.443(c) and (d).	Continuously monitor and record the total volumetric flow rate from the Combined Condensate Tank. Calculate the mass flow of HAP (methanol) collected to the Combined Condensate Tank using the monitored volumetric exit flows and the HAP emission factors from the Initial Performance Test. Subtract the mass of HAP (methanol) in non-named streams using the flow rate and HAP emission factor for non-named streams determined from the Initial Performance Test to determine the total regulated HAP mass collected prior to recycle.	40 CFR 63.453 (n) for establishing operating parameter value requirements for CMS.
B.24	Kraft Mill (Kraft Pulping Condensate System)	Kraft Pulping Condensate HAP: Monitoring Control by Recycle	Monitor the mass of HAP (methanol) controlled by recycle from the Combined Condensate Tank to equipment specified in 40 CFR 63.443(a) meeting the requirements of 40 CFR 63.443(c) and (d).	Continuously monitor and record the volumetric flow rate from the Combined Condensate Tank to the Post Oxygen Press and /or the Brownstock Press. Calculate the mass of HAP (methanol) recycled to the presses by multiplying the total HAP collected to the Combined Condensate Tank by the recycle flow rate divided by the total Combined Condensate flow rate. Multiply the result by the fraction of time the HVLC collection system was operating during the period.. The result is the total mass of HAP (methanol) controlled by recycle to closed vent pulping system equipment.	40 CFR 63.453(n) for establishing operating parameter value requirements for CMS.
B.25	Kraft Mill (Kraft Pulping Condensate System)	Kraft Pulping Condensate HAP: Total HAP Collection Standard	Collect at least 11.1 pounds of HAP per ton of ODP (oven-dried unbleached pulp) 60-day rolling average.	On a daily basis, calculate the following to determine the 60-day rolling average HAP collection rate: (a) Unbleached Kraft pulp production, in ODTP; (b) Total HAP collected, in pounds per day, by summing the daily mass of HAP from the stripper controlled by thermal oxidation and the mass of HAP collected to the Combined Condensate Tank for recycle; (c) Total unbleached Kraft pulp production for the previous 60-day period; (d) Total HAP collected for the previous 60-day period by total Kraft pulp production during the 60-day period; (e) Total HAP collected per ODTP by dividing total HAP collected during the 60-day period by total Kraft pulp production during the 60-day period.	40 CFR 63.446(c)(3) for HAP mass collection requirement at bleached Kraft pulp mills.

B.26	Kraft Mill (Kraft Pulping Condensate System)	Kraft Pulping Condensate HAP: Total HAP Control Standard	Control at least 10.2 pounds of HAP per ton of ODP (oven-dried unbleached pulp), 60-day rolling average.	On a daily basis, calculate the following to determine the 60-day rolling average HAP control rate: (a) Unbleached Kraft pulp production, in ODTP; (b) Total HAP controlled, in pounds per day, by summing the daily mass of HAP from the stripper controlled by thermal oxidation and the mass of HAP controlled by recycle to closed vent pulping systems; (c) Total unbleached Kraft pulp production for the previous 60-day period; (d) Total HAP controlled for the previous 60-day period; (e) Total HAP controlled per ODTP by dividing total HAP controlled during the 60-day period by total Kraft pulp production during the 60-day period.	40 CFR 63.446(e)(5) for HAP mass collection requirement at bleached Kraft pulp mills.
B.27	Kraft Mill (Kraft Pulping Condensate System)	Kraft Pulping Condensate HAP: Final Control Device Standard	Each HAP removed from a pulping condensate stream during treatment and handling under 40 CFR 63.446(d) or (e) shall be controlled as specified in 40 CFR 63.443(c) and (d).	Stripper methanol product lines to the incinerator, and combined condensates tank and discharge piping meet the closed-vent systems as specified by 63.443(c). HAP from stripper product methanol and pulp press vent gases are controlled in the thermal oxidizer, which meets the control standard of 40 CFR 63.443(d).	40 CFR 63.446(f)
B.28	Kraft Mill (Kraft Pulping Condensate System)	Kraft Pulping condensate HAP: Control in Thermal Oxidizer	When combusting HAP from pulping condensate in the thermal oxidizer: Reduce total HAP concentration at the outlet of the thermal oxidizer to 20 parts per million or less by volume, corrected to 10 percent oxygen on a dry basis. Continuous compliance to be demonstrated by maintaining a thermal oxidizer combustion temperature of 1350 F°, as a 12-hour block average.	Continuously monitor thermal oxidizer combustion temperature while combusting HAP removed from pulping condensates. Report any deviations from the temperature operating requirement in the monthly report.	40 CFR 63.443(d)(2)

B.29	Kraft Mill (Kraft Pulpig Condensate System)	Kraft Pulping Condensate HAP: Control in Kiln, Recover y Boiler (#10 boiler) or Hog Fuel Boiler (#11 boiler)	When combusting LVHC in the Kiln, Recovery Boiler (#10 boiler), or Hog Fuel Boiler (#11 boiler): Introduce the HAP emission stream into the flame zone.	No monitoring required. LVHC burner is located in the flame zone. Safety interlocks prevent introducing LVHC to the kiln unless a flame is present.	40 CFR 63.443(d)(4)
B.30	Kraft Mill (Kraft Pulpig Condensate System)	Kraft Pulping Condensate HAP: Closed Drain Collection System	Pulping process condensates collected for purposes of meeting the HAP collection and control requirements of 40 CFR 63.446 shall be conveyed in a closed collection system that is designed and operated to meet the requirements specified in 40 CFR 63.446(d)(1) & (2). No detectable leaks or visible defects, and timely repairs are required if leaks or defects are found.	Monthly visual inspection of closed collections systems and associated closed vent collection systems. Annual leak testing of condensate collection tanks by the procedures specified in 40 CFR 63.457(d) to demonstrate no detectable leaks.	40 CFR 63.446(d) for closed collection system requirements; 40 CFR 63.453(1) for monthly inspection, annual leak testing and corrective action requirements; 40 CFR Subpart RR (63.960 to 63.966) for closed collection system design, monitoring and timely repair requirements.

Kraft Mill – Bleaching System

	Parameter	Emission Unit	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
B.31	Kraft Mill (Bleach Plant)	Chlorinated HAP (not including chloroform): General	All equipment at each bleaching stage where chlorinated compounds are introduced (D1 & D2 bleaching stages) shall be enclosed and vented into a closed-vent system, and routed to a control device that meets the requirements of 40 CFR 63.445(c). Process modifications have been used to achieve compliance with the emission limit specified in 40 CFR 63.445(c)(2) at the D1 and D2 diffusion washer roof hatch openings, and the requirements for enclosures and closed-vent systems are not applicable to emissions from these openings.	Record all periods during which bleach plant vent gases were not collected and treated each month. Report periods of such nontreatment monthly.	40 CFR 63.445(b)
B.32	Kraft Mill (Bleach Plant)	Chlorinated HAP: Scrubber to achieve 10 ppm Cl ₂	Treat bleach plant vent gases to achieve a scrubber outlet concentration of 10 parts per million or less by volume measured as chlorine.	Operation of the scrubber outside the range established for operating parameter values shall constitute a violation of the applicable emission standard, and shall be reported as excess emissions in the monthly report. (Note: Scrubber operating parameter ranges are described in additional applicable requirements.)	40 CFR 63.445(c)(2) for HAP limit; 40 CFR 63.453(o) for definition of violation and excess emissions.
B.33	Kraft Mill (Bleach Plant)	Chlorinated HAP: Scrubber Operation	Scrubber medium ORP: -200 mV maximum, 3-hour block average.	Continuously monitor scrubber liquor Oxidation Reduction Potential (ORP) on liquor recirculation line as a performance indicator. If scrubbing medium ORP maximum operating parameter is not maintained, based on a three-hour block average, permittee will initiate corrective action within 24 hours. Report deviations in the monthly report.	40 CFR 63.453(m) for alternate operating parameter (alternate to 40 CFR 63.453(c)(1))

B.34	Kraft Mill (Bleach Plant)	Chlorinated HAP: Scrubber Operation	Scrubber liquid minimum flow rate: 150 gpm, 3-hour block average.	Continuously monitor scrubber liquid influent flow rate to the scrubber as a performance indicator. If scrubber liquid flow falls below the minimum established flow rate based on a three-hour block average, permittee will initiate corrective action within 24 hours. Report only deviations in the monthly report.	40 CFR 63.453(c)(2)
B.35	Kraft Mill (Bleach Plant)	Chlorinated HAP: Scrubber Operation	Scrubber fan operation required as an indicator of scrubber gas inlet flow.	Monitor scrubber fan motor function continuously as a performance indicator. If fan motor ceases operation as indicated by motor function based on a three-hour block average, permittee will initiate corrective action within 24 hours. Report only excursions in the monthly report.	40 CFR 63.453(m) for alternate operating parameter.
B.36	Kraft Mill (Bleach Plant)	Chlorinated HAP: Closed Vent Collection	No visible defects in enclosure openings and closed vent system components for D1 and D2 bleaching stages (does not apply to D1 and D2 bleach tower roof hatch openings which use process modifications to meet the HAP emissions standard).	Perform monthly visual inspection of each enclosure opening and closed-vent system for D1 and D2 bleaching stages, as specified in 40 CFR 63.453(k)(1) & (2). Inspection of each enclosure opening is to ensure that the opening is maintained in the closed position and sealed. The visual inspection of closed vent systems shall include inspection of ductwork, piping, enclosures, and connections to covers for visible evidence of defects.	40 CFR 63.453(k)(1) & (2) for monthly visual inspection of enclosures and closed vent system components.
B.37	Kraft Mill (Bleach Plant)	Chlorinated HAP: Closed Vent Collection	Annually demonstrate no detectable leaks from the portions of the closed vent collection system for D1 and D2 bleaching stages that are operated at positive pressure, by the procedures of 40 CFR 63.457(d), (i.e., no leaks >500 ppm VOC).	There are no positive pressure portions in the closed vent collection system, therefore no annual testing is required.	40 CFR 63.453(k)(3) for annual leak testing requirement.
B.38	Kraft Mill (Bleach Plant)	Chlorinated HAP: Closed Vent Collection	Demonstrate annually that each enclosure opening used to comply with the closed-vent standards for D1 and D2 bleaching stages are maintained at negative pressure.	Annual demonstration that each enclosure opening used to comply with 40 CFR 63.450(a) is maintained at negative pressure as specified in 40 CFR 63.457(e). (Note: There are no such enclosure openings for D1 and D2 stages. The towers are not subject to the closed vent standards and the filtrate tanks have no openings.)	40 CFR 63.453(k)(4) for annual testing.

B.39	Kraft Mill (Bleach Plant)	Chlorinated HAP: Closed Vent Collection	Timely repair of closed vent system leaks and defects found during monthly inspections or annual testing.	If an inspection identifies visible defects or if enclosure openings are not maintained at negative pressure, then the following corrective actions shall be taken. Make a first effort to repair or correct the closed vent system as soon as practicable, but no later than five calendar days after the problem has been identified. Complete the repair or corrective action no later than 15 days after the problem is identified. Delay of repair or corrective action is allowed if the repair or corrective action is technically infeasible without a process unit shutdown or if it is determined that the emissions resulting from the immediate repair would be greater than the emission likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process shutdown.	40 CFR 63.453(k)(6) for corrective action. 40 CFR 63.453(b) & (c) for operating requirements.
B.40	Kraft Mill (Bleach Plant)	HAP (chloroform)	Comply with the effluent limitations guidelines for paper-grade Kraft and soda bleaching systems and lines, 40 CFR 63.430.24(a)(1) and (e), and 40 CFR 63.430.26(a) and (c).	Chloroform monitoring as required by NPDES Permit Number WA-000012-4	40 CFR 63.445(d)(1)(ii)

C. Volatile Organic Liquid Storage Vessels. (Reserved – Currently Inapplicable).

D. East Powerhouse Boilers (Officially Shutdown in 1998)

E. Hogged Fuel Boiler #11

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
E.1	Particulate	0.05 gr/dscf @ 7% O ₂ .	EPA RM 5 is the reference test method. Sample quarterly using EPA RM 5 [note 1: the particulate emission limit is only applicable to the front half catch.] Report test results in next monthly report.	WAC 173-400-091 for particulate limit implemented through Order DE 94AQ-I080.
E.2a	Particulate	0.2 gr/dscf @ 7% O ₂ .	EPA RM 5 is the reference test method. Sample quarterly using EPA Method 5. Report test results in next monthly report.	WAC 173-405-040(5)(a)
E.2b	Particulate	0.10 lb per MMBtu	EPA RM 5 is the reference test method. Sample quarterly using EPA Method 5. Report test results in next monthly report. Keep records of type and quantity of fuels used.	40 CFR 60.42(a)(1)

E.3a	Opacity	Average 20% for more than 6 consecutive minutes in any 60-minute period, except for emissions due to soot blowing or grate cleaning for up to 15 minutes in 8 consecutive hours.	EPA RM 9 is the reference test method. Monitor continuously using an approved COM. Report excursions monthly. Maintain COM in accordance with 40 CFR Part 60.13(d).	WAC 173-405-040(6) for opacity limit.
E.3b	Opacity	≤ 20% except for one 6-minute period per hour of not more than 27%.	Reference Test Method is EPA RM Method 9. Monitor continuously using a COM that conforms to 40 CFR Pt. 60 (July 1, 1992), App. F and App. B, Perf. Spec. 1. Report excursions monthly.	40 CFR 60.42(a)(2)
E.4	SO ₂	1000 ppm @ 7% O ₂ , hourly average.	Reference Test Method is EPA RM 6. Ongoing compliance indicated by maintaining fuel oil sulfur content less than or equal to 2%. Record of sulfur content of each shipment will be maintained.	WAC 173-405-040(11)(b)
E.5	SO ₂	0.80 lb per MMBtu (derived from liquid fossil fuel or liquid fossil fuel and wood residue)	Reference Test Method is EPA RM 6. Monitor continuously using a CEM that conforms to 40 CFR Pt. 60 (July 1, 1992), App. F and App. B, Perf. Spec. 2 or by fuel sampling and analysis as allowed by 40 CFR 60.45(b) (2). Keep records of type and quantity of fuels used. Report excursions monthly.	40 CFR 60.43(a)(1)
E.6	SO ₂	1.2 lb per MMBtu (derived from solid fossil fuel or solid fossil fuel and wood residue)	Reference Test Method is EPA RM 6. Monitor continuously using a CEM that conforms to 40 CFR Pt. 60 (July 1, 1992), App. F and App. B, Perf. Spec. 2 or by fuel sampling and analysis as allowed by 40 CFR 60.45(b) (2). Keep records of type and quantity of fuels used. Report excursions monthly.	40 CFR 60.43(a)(2)
E.7	SO ₂	$(0.8y + 1.2z) / (y + z)$ lb per MMBtu. (derived from burning a mixture of liquid and solid fossil fuel)	Reference Test Method is EPA RM 6. Monitor continuously using a CEM that conforms to 40 CFR Pt. 60 (July 1, 1992), App. F and App. B, Perf. Spec. 2 or by fuel sampling and analysis as allowed by 40 CFR 60.45(b) (2). Keep records of type and quantity of fuels used. Report excursions monthly.	40 CFR 60.43(b) which also defines the variables y and z.
E.8	NO _x	0.30 lb per MMBtu (derived from liquid fossil fuel or liquid fossil fuel and wood residue)	Reference Test Method is EPA RM 7. Monitor continuously using a continuous monitoring system that conforms to 40 CFR Pt. 60 (July 1, 1992), App. F and App. B, Perf. Spec. 2 if required per 40 CFR 60.45(b) (3). Keep records of type and quantity of fuels used. Report excursions monthly.	40 CFR 60.44(a)(2)

E.9	NOx	0.70 lb per MMBtu (derived from solid fossil fuel or solid fossil fuel and wood residue)	Reference Test Method is EPA RM 7. Monitor continuously using a continuous monitoring system that conforms to 40 CFR Pt. 60 (July 1, 1992), App. F and App. B, Perf. Spec. 2 if required per 40 CFR 60.45(b) (3). Keep records of type and quantity of fuels used. Report excursions monthly. If a CEM is not required test performance once per permit term using RM 7.	40 CFR 60.44(a)(3)
E.10	NOx	$(0.30x + 0.70y)/(x + y)$ lb per MMBtu (derived from solid fossil fuel, liquid fossil fuel and wood residue)	Reference Test Method is EPA RM 7. Monitor continuously using a continuous monitoring system that conforms to 40 CFR Pt. 60 (July 1, 1992), App. F and App. B, Perf. Spec. 2 if required per 40 CFR 60.45(b) (3). Keep records of type and quantity of fuels used. Report excursions monthly.	40 CFR 60.44(b) which also defines the variables y and z.

F. Package Boiler (shutdown on Feb 28, 2000).

G. Power Boilers 6, 7, 9

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
G.1	Particulate	0.1 gr/dscf @ 7% O ₂	Reference Test Method is EPA RM 5. Maintain records of type of fuel usage.	WAC 173-405-040(5)(c)
G.2	Opacity	20% for more than 6 consecutive minutes in any 60 minute period except for soot blowing per WAC 173-405-040(6)	Reference Test Method is EPA RM Method 9. Perform visual opacity assessment shortly after startup at least once per week when firing oil. Record visual assessment. Report excursions monthly.	WAC 173-405-040(6)
G.3	SO ₂	1000 ppm @ 7% O ₂ hourly average.	Reference Test Method is EPA RM 6. Ongoing compliance indicated by maintaining fuel oil sulfur content less than or equal to 2%. Record of sulfur content of each shipment will be maintained.	WAC 173-405-040(11)

H. Recovery Furnace No. 10 (as measured in the main stack)

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
H.1	PM	0.027 gr/dscf @ 8% O ₂ .	Sample quarterly using reference test method DOE Method 5. Report average of three 1-hr runs monthly.	PSD92-03 amend 4 Condition 2; Order DE 92 AQ-I069 for particulate limit.
H.2	HAP Metals (PM as surrogate)	0.044 gr/dscf at 8% O ₂ .	Sample at least once per permit term consisting of three 1-hour tests using EPA Method 5 or a test method approved in writing by Ecology. Report test results in the monthly report. Continuous compliance assurance monitoring is addressed in other applicable requirements.	40 CFR 63.862(a)(1)(i)(A) for PM surrogate HAP limit.

H.3	PM	0.10 gr/dscf @ 8% O ₂ .	Sample quarterly using reference test method DOE Method 5. Report average of three 1-hr runs monthly.	WAC 173-405-040(1) (a) and for particulate limit.
H.4	PM	0.020 gr/dscf @ 8% O ₂ annually.	The reference method is the averaging of the quarterly RM (DOE Method 5) tests.	PSD92-03 amend 4 Condition 2 for particulate limit; Order DE 92 AQ-I069.
H.5	PM	252 tons per year	The reference test method is set forth in Appendix C. Report annual emissions in January air report of following year.	PSD92-03 amend 4 Condition 2 for particulate limit; Order DE 92 AQ-I069.
H.6	PM ₁₀	0.027 gr/dscf @ 8% O ₂ .	Sample quarterly using reference test method DOE Method 5. Report average of three 1-hr runs monthly.	PSD92-03 amend 4 Condition 3; Order DE 92 AQ-I069.
H.7	PM ₁₀	0.020 gr/dscf @ 8% O ₂ annually.	The reference method is the averaging of the quarterly RM (DOE Method 5) tests.	PSD92-03 amend 4 Condition 3; Order DE 92 AQ-I069.
H.8	PM ₁₀	252 tons per year	The reference test method is set forth in Appendix C. Report annual emissions in January air report of following year.	PSD92-03 amend 4 Condition 3; Order DE 92 AQ-I069.
H.9	Opacity	20%	Reference Test Method is EPA RM Method 9. Monitor continuously using a COM that conforms to 40 CFR Pt. 60 (July 1, 1992), App. F and App. B, Perf. Spec. 1. Report exceedences monthly (six minute averaging time).	PSD92-03 amend 4 Condition 4; Order DE 92 AQ-I069.
H.10	Opacity	35%	Reference Test Method is EPA RM Method 9. See Condition H9 for ongoing monitoring.	WAC 173-405-040(6) for the limit.
H.11	SO ₂	75 ppm @ 8% O ₂ , 3-hour average (when not using supplemental oil or when using supplemental oil and BLS firing rate > 150,000 lbs/hr).	The compliance reference test method and ongoing monitoring method is the continuous use of a CEM that conforms to 40 CFR Pt. 60 (July 1, 1992), App. F and App. B, Perf. Spec. 2. Report results monthly.	PSD92-03 amend 4 Condition 5.1; Order DE 92 AQ I069
H.12	SO ₂	500 ppm @ 8% O ₂ , 3-hour average (when BLS firing rate < 120,000 lbs/hr and firing supplemental oil).	The compliance reference test method and ongoing monitoring method is the continuous use of a CEM that conforms to 40 CFR Pt. 60 (July 1, 1992), App. F and App. B, Perf. Spec. 2. Report results monthly.	PSD92-03 amend 4 Condition 5.2; Order DE 92 AQ I069
H.13	SO ₂	1000 ppm @ 10% O ₂ , hourly avg. (when firing oil)	Reference Test Method is EPA RM 6. Ongoing compliance indicated by maintaining fuel oil sulfur content less than or equal to 2%. Record of sulfur content of each shipment will be maintained.	WAC 173-405-040(11)(b)
H.14	SO ₂	586 tpy + 0.036 tpy for each hr operation of the NCG incinerator. The combined total not to exceed 884 tpy.	The reference test method is set forth in Appendix C. Report annual emissions in January air report of following year.	PSD92-03 amendment 4 Condition 5. Order DE 92 AQ I069

H.15	TRS	5.0 ppm _{dv} @8.0% O ₂ 12-hr average	Reference Test Method is EPA RM 16 or 16A. Ongoing compliance indicated by continuous use of a CEM that conforms to 40 CFR Pt. 60 (July 1, 1992), App. F and App. B, Perf. Spec. 5. Report results monthly.	PSD92-03 amend 4 Condition 6; Order DE 92 AQ I069, WAC 173-405-040(1)(c), and for limit
H.16	TRS	31 tpy	The reference test method is set forth in Appendix C. Report annual emissions in January air report of following year.	PSD92-03 amendment 4 Condition 6; Order DE 92 AQ I069.
H.17	NO _x	140 ppm _{dv} @ 8.0% O ₂ , 24 hr average.	Reference Test Method is EPA RM 7, 7A, 7B, or 7E. Ongoing compliance indicated by continuous use of a CEM that conforms to 40 CFR Pt. 60 (July 1, 1992), App. F and App. B, Perf. Spec. 2. Report results monthly.	PSD92-03 amendment 4 Condition 7, Order DE 92 AQ I069.
H.18	NO _x	1,179 tpy annual average	The reference test method is set forth in Appendix C. Report annual emissions in January air report of following year.	PSD92-03 amend 4 Condition 7; Order DE 92 AQ I069.
H.19	CO	1,000 ppm _{dv} 1-hr average	Reference Test Method is EPA RM 10. Initial source testing; no on-going monitoring required by this permit.	PSD92-03 amend 4 Condition 8; Order DE 92 AQ-I069.
H.20	CO	2,564 tpy	The reference test method is set forth in Appendix C. Initial source testing; no on-going monitoring required by this permit.	PSD92-03 amend 4 Condition 8; Order DE 92 AQ-I069.
H.21	VOC	50 ppm _{dv} 1-hr average	Reference Test Method is EPA RM 25, 25A, or 25B. Initial source testing; no on-going monitoring required by this permit	PSD92-03 amend 4 Condition 9; Order DE 92 AQ-I069.
H.22	VOC	201 tpy	Reference Test Method is EPA RM 25, 25A, or 25B. Initial source testing; no on-going monitoring required by this permit.	PSD92-03 amend 4 Condition 9; Order DE 92 AQ-I069.
H.23	Temp. at of entrance to No. 10 recovery boiler ESP	≤ 500 degrees F, hourly average	Monitored continuously using thermocouple at ESP entrance. Report only exceedances of hourly average in monthly report.	PSD -92-03 amend 4 Condition 10; Order 92AQ-I069
H.24	HAP Metals (Using Opacity as surrogate)	Opacity is greater than 35% for 6% or more of the operating time within any quarterly period	Monitored with Continuous Monitoring System. Report excursions in the semiannual report.	40 CFR 63.864(k)(2)(i) for NESHAP HAP definition of limit violation. 40 CFR 63.13(e) for COMS data recovery.
H.25	Opacity and NESHAPS: Minimum Operating Condition	Implement corrective action, as specified in the SSM Plan, when the average of ten consecutive 6-minute averages result in a measurement greater than 20 % opacity.	Monitor continuously using a COM that conforms to 40 CFR Part 60 (July 1, 1992), Appendix F and Appendix B, Perf. Spec 1. The permittee shall operate the continuous opacity monitor as a performance indicator to show continuous operation of the pollution control device. Report corrective actions and performance indicator deviations in the monthly report.	40 CFR 63.864(k)(1)(i) for corrective action trigger. 40 CFR 63.8(c) for COMS data recovery.

I. Smelt Dissolver Tank Vent

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
I.1	HAP Metals (PM as surrogate)	0.20 lbs/ton of black liquor solids (dry weight), hourly average.	For the initial performance test, use EPA Reference Method 5 as the reference test method. See Scrubber Performance Monitoring for continuing monitoring requirements.	40 CFR 63.862(a)(1)(i)(B) for PM surrogate HAP limit.
I.2	Reserved			
I.3	PM	0.30 lb/TBLS	Sample quarterly using EPA Reference Method 5 as the reference test method. Report test results in next monthly report.	WAC 173-405-040(2)
I.4	PM ₁₀	0.120 lb/TBLS	Sample quarterly using EPA Reference Method 5 as the reference test method. Report test results in next monthly report.	PSD92-03 amendment 4 Condition 14; Order DE 92 AQ-I069 for PM ₁₀ limit.
I.5	PM ₁₀	62.0 tons per year	The reference test method is set forth in Appendix C. Report annual emissions in January air report of following year.	PSD 92-03 amend 4 Condition 14; Order DE 92 AQ-I069.
I.6	Opacity	20 % for more than 6 consecutive minutes in any 60-minute period.	EPA Reference Method 9 is the reference test method.	PSD 92-03 amend 4 Condition 15; Order DE 92 AQ-I069 for opacity limit.
I.7	Opacity	Average 35% for more than 6 consecutive minutes in any 60-minute period.	EPA Reference Method 9 is the reference test method.	WAC 173-405-040(6)
I.8	TRS	0.0168 lb/TBLS	Sample quarterly using EPA RM 16 or 16A. Report average of three 1-hr runs in monthly report. After limit exceedence, sample monthly until limit met for three consecutive months then resume quarterly tests.	PSD 92-03 amend 4 Condition 16; Order DE 92AQ-I069.
I.9	Black Liquor Feed Rate	Not applicable	Record Black Liquor (TBLS) feed rate.	PSD 92-03 amend 4 Condition 16; Order DE 92AQ-I069.
I.10	TRS	9.0 tpy	The reference test method is set forth in Appendix C. Report annual emissions in January air report of following year.	PSD 92-03 amend 4 Condition 16; Order DE 92AQ-I069.

I.11	HAP Metals: Scrubber Performance Monitoring	Maintain scrubber liquid makeup flow rate of at least 100 gpm as a three-hour block average; maintain positive scrubber pressure drop (>0" H ₂ O) to assure fan is in operation and dissolver exhaust flow is routed through scrubber.	Continuously monitor pressure drop and scrubber liquid medium makeup flow rate. Record values at least once every 15 minutes at equally spaced intervals, or as arithmetic three-hour block averages. Report excursions in the monthly and semiannual reports.	40 CFR 63.864(k)(2) for pressure drop and flow rate monitoring. 40 CFR 63.864(k)(ii) for establishing operating ranges on values recorded during previous performance tests. 40 CFR 63.867(c) and 40 CFR 63.10(c) for reporting. 40 CFR 63.8(c)(4)(ii) for recording frequency. 40 CFR 63.8(g)(2) for monitored data management requirements. CFR 63.8(c)(4) for CMS data recovery.
I.12	HAP Metals: Scrubber Performance Monitoring	Implement corrective action as specified in the SSM Plan, whenever the three-hour block average parameter value is outside the range of established values. (100 gpm scrubber liquid makeup flow)	Implement corrective action as specified in the Startup, shutdown, and Malfunction Plan (SSMP) for any Kraft smelt dissolving tank equipped with a wet scrubber when any three-hour block average parameter value is outside the range of established values.	40 CFR 63.864(k)(1)(ii) for Corrective Action requirement.
I.13	HAP Metals: Scrubber Performance Monitoring	Six or more monitoring parameter exceedences in a semiannual reporting period	Sources equipped with a scrubber shall not have six or more monitoring parameter exceedences in a semiannual reporting period on each unit. A unit exceedence day is a 24-hour period in which one or more monitoring parameter exceedences occur on a specific emission unit.	40 CFR 63.864(k)(2)(iii) for excursion allowance limitation.

J. Non-condensable Gas (NCG) Collection & Treatment

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
J.1	Opacity	20%, 6 minute avg in any sixty minute period.	None because exhaust is vented to RF stack.	WAC 173-405-040(6)
J.2	TRS – High Conc. NCG (Digester; evaporators; foul condensate stripping)	Treat by incineration or its equivalent.	Continuously monitor and record high concentration NCG venting from high concentration NCG header vent to recovery boiler stack (i.e., not being treated in incinerator or kiln). Report times, duration and causes of venting in monthly air report.	PSD 92-03 amend 4 Condition 11, WDOE 92AQ I069
J.3	TRS – Low Conc. NCG (Chip bin; blow tanks; brownstock press, filtrate tanks,; O2 delig.; black liquor tanks D-J)	Treat by incineration or its equivalent.	Continuously monitor and record low concentration NCG venting from chip bin, fiberline roof vent, 24” standpipe, and combined LC-NCG vent to recovery boiler stack (i.e., not being treated in incinerator). Report times, duration and causes of venting in monthly air report.	PSD 92-03 amend 4 Condition 11, WDOE 92AQ I069
J.4	TRS– NCG (All sources listed in J.2 and J.3)	Incinerator performance: 5.0 ppm _{dv} @ 10% O ₂ , 12-hour avg.	Reference Test Method is EPA Method 16 or 16A. Compliance indicated by maintaining 12 hour average combustion temperature at the point of incineration ≥ 1350 F.	PSD 92-03 amend 4 Condition 12; Order DE 92 AQ I069
J.5	TRS–NCG, NSPS Units (Digester, flash tanks, blow tanks, brownstock washing, MEE #8, HSC, Foul Condensate Stripper)	Incinerator /Kiln performance while combusting NCG from NSPS units: a. Incinerator Combustion temp >1200F for at least 0.5 second b. Lime Kiln TRS ≤ 8 ppm _{dv} @ 10% O ₂ , 12 hour average (see Section K)	a. Continuously monitor combustion temperature. Excess emissions defined as “all periods in excess of 5 minutes and their duration during which the combustion temperature at the point of incineration is less than 1200F”. Report time, cause and duration of excess emission periods monthly. b. Lime Kiln: See Condition K.7 for monitoring requirement.	40 CFR 60.283(a) (1) (iii) for limit at incinerator. 40 CFR 60.284(b)(1) for temperature monitoring Lime Kiln requirements cited in Condition K.
	Reserved			
J.7	SO ₂	300 ppm @ 7% O ₂ hourly avg.	Reference Test Method is EPA Method 6. Compliance indicated by maintaining hourly average scrubber pH above 6.5. Record pH continuously. Report exceedances monthly.	PSD 92-03 amend 4 Condition 13; Order DE 92 AQ I069
J.8	SO ₂	1000 ppm @ 7% O ₂ , hourly avg.	Reference Test Method is EPA Method 6. Compliance indicated by maintaining hourly average scrubber pH above 6.0. Record pH continuously. Report exceedances monthly.	WAC 173-405-040(11)(b)

J.9 The NCG collection and treatment system is subject to the NSPS requirements identified in the stand-alone generic NSPS section of this permit.

K. Lime Kiln

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
K.1.a	PM	0.035 gr/dscf @ 10% O ₂ (gas fired) 0.07 gr/dscf @ 10% O ₂ oil fired.	Sample quarterly using reference test method EPA Method 5. Report average of three 1-hour tests.	Order DE 95AQ-I035 for particulate limit.
K.1.b	HAP Metals (PM as surrogate)	0.064 gr/dscf @ 10% O ₂	Sample at least once per permit term consisting of three 1-hour tests using EPA Method 5 or a test method approved in writing by Ecology. Report test results in the monthly report. Continuous compliance assurance monitoring is addressed in other applicable requirements.	40 CFR 63.862(a)(1)(i)(A) for PM surrogate HAP limit
K.2	PM	0.067 gr/dscf @ 10% O ₂ (gas), 0.13 gr/dscf @ 10% O ₂ (liquid fossil fuel)	Sample quarterly using reference method EPA Method 5. Report average of three 1-hour tests.	WAC-173-405-040(3)(a), 40 CFR 60.282(a)(3)
K.3	Opacity	Average 25% for more than 6 consecutive minutes in any 60-minute period.	EPA Test Method 9 is reference test method. Monitor continuously using a COM that conforms to 40 CFR Pt. 60 (July 1, 1992), App. B, Perf. Spec. 1. Report exceedences monthly.	Order DE 95AQ-I035
K.4	Opacity and NESHAPS	Opacity is greater than 20% for 6% or more of the operating time within any quarterly period.	Monitored with Continuous Monitoring System. Report excursions in the semiannual report.	40 CFR 63.864(k)(2)(ii) for NESHAP HAP definition of limit violation. 40 CFR 60.13(e) for COMS data recovery.
K.5	Opacity and NESHAPS: Minimum Operating Condition	Implement corrective action, as specified in the SSM Plan, when the average of ten consecutive 6-minute averages result in a measurement greater than 20 percent opacity.	Monitor continuously using a COM that conforms to 40 CFR Part 60 (July 1, 1992), Appendix F and Appendix B, Perf. Spec 1. The permittee shall operate the continuous opacity monitor as a performance indicator to show continuous operation of the pollution control device. Report corrective actions and performance indicator deviations in the monthly report.	40 CFR 63.864(k)(1)(i) for corrective action trigger. 40 CFR 63.8(c) for COM data recovery.
K.6	Opacity	Average 35% for more than 6 consecutive minutes in any 60-minute period.	EPA Test Method 9 is reference test method. See Condition K5 for ongoing monitoring.	WAC 173-405-040(6)
K.7	TRS	8.0 ppm _{dv} @ 10% O ₂ , 12 hour avg.	EPA Test Method 16 or 16A is reference test method. Monitor continuously using a CEM that conforms to 40 CFR Pt. 60 (July 1, 1992), App. B, Perf. Spec. 5. Report results monthly.	DE 95AQ-I035 and 40 CFR 60.283(a) (5) for limit. 40 CFR 60.284(a) (2) for CEM. 40 CFR 60.284(c) (1), (3) for monitoring. 40 CFR 60.284(d) (2) for reporting except that excess emissions reported monthly.
K.8	O ₂	Not Applicable	Record 12 hour average on daily basis.	40 CFR 60.284(c)(2) for monitoring

K.9a	SO ₂	500 ppm @ 10% O ₂ , hourly avg.	Sample at Ecology's request using reference test method EPA RM 6 or 6A. Report results monthly. See Condition K.9b for minimum O&M requirements intended to indicate compliance.	WAC 173-405-040(11)(a)
K.9b	No usage of pulp mill evaporator condensates to wash lime mud. Minimize introduction of sulfur compounds in washing of lime mud. See Support Document for emission history.			

K.10 The Lime Kiln is subject to the NSPS requirements identified in the stand-alone generic NSPS section of this permit.

K.11 The following **state-only** requirements are not federally enforceable under the federal Clean Air Act:

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
K.11a	TRS	80 ppm as H ₂ S for no more than 3 consecutive hours in any one day	Monitor continuously using an approved CEM that conforms to 40 CFR Pt. 60 (July 1, 1992), App. B, Perf. Spec. 5. Report test results monthly.	WAC 173-405-040(3)(b)
K.11b	TRS	20 ppm @ 10% O ₂ on daily avg.	Monitor continuously using an approved CEM that conforms to 40 CFR Pt. 60 (July 1, 1992), App. B, Perf. Spec. 5. Report test results monthly.	WAC 173-405-040(3)(c)

L. Slaker Vent Scrubber Stack

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
L.1	Particulate	0.07 gr/dscf	EPA Test Method 5 is the reference test method. See Condition L.3 for minimum monitoring and reporting requirements intended to indicate compliance with the particulate limit.	WAC 173-400-110 and Order DE 95 AQ I035 for the particulate limit.
L.2	Opacity	Average 25% for more than 6 consecutive minutes in any 60-minute period.	DOE Test Method 9B is the reference test method. See Condition L.3 for minimum monitoring and reporting requirements intended to indicate compliance with the particulate limit.	WAC 173-400-110 and Order DE 95AQ-I035 for the opacity limit.
L.3	Maintain water flow \geq 50 gpm on a daily average. Maintain scrubber nozzle pressure \geq 23 psi. Monitor scrubber water flow continuously. Monitor and record pressure monthly. Whenever daily average water flow is less than 50 gpm, the permittee shall immediately, but no later than 24 hours, take corrective action to bring the parameter within prescribed range. Whenever monitored pressure value is less than 23 psi, the permittee shall as soon as practical, but no later than 30 days, take corrective action to bring the parameter within prescribed range. Failure to take corrective action is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report exceedences and corrective action taken in monthly report.			

M. Planer Mill & Lumber Drying Kilns

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
M.1	Lumber Drying Kilns: Opacity	Shall not exceed 10% for 3 minutes in any one hour period	EPA Method 9 is the reference test method. Report exceedances and corrective action taken in monthly report.	Order DE 97 AQ I087 Amendment 1
M.2	Lumber Drying Kilns: VOC, HAP & TAP	Annual emissions in tons per year shall not be exceeded for the following: <u>Methanol</u> 17 <u>Formaldehyde</u> 1 <u>Acetaldehyde</u> 10 <u>Propionaldehyde</u> 1 <u>Acrolein</u> 1 <u>VOC</u> (OTM-26) 140	For purposes of emission monitoring, reporting, and compliance demonstration, lumber dry kiln emissions shall be calculated by multiplying annual dry kiln production (MBF per year for each species of lumber dried) by the appropriate species-specific emission factors. Unless otherwise approved in writing by Ecology, the species-specific emissions factors listed below shall be used. Processing of other wood species in the dry kilns is subject to Ecology review and approval. Species-Specific Emission Factors (lb/MBF): <u>Hemlock:</u> <u>Douglas Fir:</u> Methanol 195 Methanol 112 Formaldehyde 1.3 Formaldehyde 2.0 Acetaldehyde 120 Acetaldehyde 54.7 Propionaldehyde 1.2 Propionaldehyde 0.5 Acrolein 1.5 Acrolein 0.7 VOC (OTM-26) 323 VOC (OTM) 922 An annual report shall be submitted of annual dry kiln emissions to the Department of Ecology not later than 105 days after the end of the reporting year.	Order DE 97 AQ I087 Amendment 1
M.3	#18 Planer Antistain Spray System: VOC, HAP & TAP	VOC: 22.5 tons/year Petroleum Naptha: 1.36 lbs/hour, 11,700 lbs/year Ethyl Alcohol: 2.30 lbs/hour, 19,700 lbs/year	Monitor & record: Quantity of anti-sapstain chemical consumed weekly for Planer Line #18; Concentration of anti-sapstain chemical applied to lumber weekly; Estimated air emissions recorded monthly. Log any upset conditions; Log any maintenance, inspection, and calibration activities.	Order DE 95 AQ-I079
M.4	#19 Planer Antistain Spray System: VOC	12.0 tons/year; Odors that may unreasonably interfere with any other property owner's use and enjoyment of property is prohibited.	Monitor & record: Quantity of anti-sapstain chemical consumed weekly for Planer Line #19; Quantity of lumber processed weekly; Concentration of anti-sapstain chemical applied to lumber weekly; Calculated annual VOC emissions for #19 Planer = anti-sapstain chemical used (gallons) x VOC content (lbs/gal) x MMBF lumber treated by Line #19 / MMBF total lumber treated at Planer Mill; Log any upset conditions to Ecology as soon as possible; Log any maintenance, inspection and calibration activities.	NOC Order DE 03 AQIS-5416

M.5	#19 Planer: PM/PM10	Visible emissions from the baghouse shall not exceed 10%.	Keep inspection and maintenance records for the cyclones and baghouse.	NOC Order DE 03 AQIS-5416. 40 CFR Part 60 Appendix A Method 9 is the referenced method.
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N. Saw Mill

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
N.1	Particulate (Trimmer Saw)	Control trimmer saw emissions in a baghouse with emissions not to exceed 0.005 gr/dscf.	Initial source test was required after start-up of the sawmill to confirm the emission control system's ability to achieve the standard (source test was completed 11/2008). Compliance is to be demonstrated by keeping inspection and maintenance records for the baghouse.	WAC 173-400-110 and Order No. 4372.
N.2	Particulate (sawmill residuals bins)	Reasonable precautions to minimize emissions.	Install two-sided wind shrouds or walls on residuals bin loadout stations with compliance to be demonstrated by keeping maintenance records for the shrouds or walls.	WAC 173-400-110 and Order No. 4372
N.3	Particulate (mobile source fugitive dust)		BACT for dust control from mobile sources on a gravel surface will be defined as watering with compliance to be demonstrated by keeping log sheets for the watering.	WAC 173-400-110 and Order No. 4372.
N.4	As required by WAC 173-400-720 (4)(b)(iii)(C)(iv), an annual report summarizing emissions information is required within 60 days after the end of the calendar year following resumption of regular operation after the improvements have been completed.			

O. NESHAP REQUIREMENTS

STARTUP, SHUTDOWN, AND MALFUNCTION (SSM) PLAN, RECORDKEEPING, AND REPORTING REQUIREMENTS.

Affected sources subject to NESHAP emission standards or operating requirements are required to develop and implement a written startup, shutdown, and malfunction (SSM) plan. The Weyerhaeuser Longview facility contains affected sources subject to the NESHAP for the Pulp and Paper Industry (Subpart S), the NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semicheical Pulp Mills (Subpart MM), the NESHAP for Plywood and Composite Wood Products (Subpart DDDD), and the NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters (DDDDD).

The SSM Planning requirements do not currently apply to Subpart DDDD or Subpart DDDDD sources because there are currently no applicable NESHAP standards or operating requirements for those sources. The Lumber Dry Kilns are affect sources under Subpart DDDD, but no emission standards or operating requirements have been established for lumber dry kilns. DDDDD is currently vacated and is reserved in section K below.

Note: Only 40 CFR Part 63 requirements are cited in this permit as the applicable requirements. WAC 173-400-075(6) incorporates MACT by reference.

	Limit	Monitoring & Reporting	Applicable Requirements
0.1	Operation and Maintenance/ SSM Plan	The Permittee shall develop and implement a written startup, shutdown, and malfunction (SSM) plan for operating and maintaining affected sources subject to NESHAP Subparts S & MM during SSM periods, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with 40 CFR 63 Subparts S & MM standards. The SSM plan shall include the elements set forth in 40 CFR 63.6(e)(3)(i).	40 CFR 63.6(e)(3)(i).
0.2		During SSM periods, operate and maintain regulated mill systems (including associated air pollution control equipment) in accordance with the SSM plan. Malfunctions shall be corrected as soon as possible after their occurrence in accordance with the SSM plan	40 CFR 63.6(e)(3)(i).
0.3		The Permittee shall change the SSM plan, if required by Ecology, if it is determined to be unacceptable under 40 CFR 63.6(e)(2).	40 CFR 63.6(e)(3)(i).
0.4		The Permittee shall update the SSM plan within 45 days of an SSM event that the plan failed to address or inadequately addressed.	40 CFR 63.6(e)(3)(i).
0.5	Record-keeping General Requirements	NESHAP Subparts S & MM, Record Retention - maintain files of all information (including all reports and notifications) required by 40 CFR Part 63, Subparts S & MM in a form suitable and readily available for inspection for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks or on microfiche.	40 CFR 63.10(b)(1) and 40 CFR 63.6(e)(3)(v).
0.6		Keep the SSM Plan on record to be made available for inspection, upon request, by the Ecology or EPA, for the life of mill, or until the mill is no longer subject to the provisions of 40 CFR Part 63. If the SSM Plan is revised, keep previous (i.e. superseded) versions of the Plan on record, to be made available for inspection, upon request, by the Ecology or EPA, for five years following each revision of the Plan.	40 CFR 63.10(b)(1) and 63.6(e)(3)(v).
0.7	Reporting- General Requirements	Immediate SSM Plan Deviation Report. Any time an action taken during a SSM event (including actions taken to correct a malfunction) is not consistent with the procedures in the permittee's 40 CFR 63 Subparts S & MM SSM Plan, make an immediate report of the actions taken for that event to Ecology within 2 working days, by telephone or facsimile transmission. The immediate report shall be followed by a letter explaining the circumstances of the event, the reasons for not following the plan, and whether any 40 CFR 63 Subpart S & MM excess emissions and/or parameter monitoring exceedences are believed to have occurred. For purposes of this report, a "malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner (failures caused in part by poor maintenance or careless operation are not malfunctions).	40 CFR Part 63.10(d)(5)(ii) and WAC 173-401-615(3).
0.8		Semi-annual NESHAP Subparts S & MM Summary Report. The monthly CEM reports filed (by July 30 th and January 30 th) for the months of June and December shall include a semi-annual NESHAP Subparts S & MM excess emissions and continuous monitoring system performance report and/or summary report for the six month reporting periods ending June 30 and December 31.	40 CFR Part 63.10(e)(3) and WAC 173-401-615(3).
0.9		Semi-annual SSM Report. If actions taken during SSM events were consistent with the procedures in the permittee's SSM plan the semi-annual report required under section O of this AOP shall include a statement to that effect.	40 CFR Part 63.10(d)(5)(i) and WAC 173-401-615(3).
0.10		Comply with NESHAP General Reporting.	40 CFR Part 63.10(b) and (c).

0.11	Additional Reporting Requirements for Subpart S Affected Sources	Every two years beginning April 15, 1999, submit a non-binding control strategy report in accordance with applicable requirements.	40 CFR Part 63.455(a); 40 CFR Part 63.455(b)(1) through (b)(3); and 40 CFR Part 63 Subpart A, Section §63.9(b)(2).
0.12	Additional SSM Plan Requirements for Subpart MM Affected Sources	In addition to the requirements specified in §63.6(e)(3), the SSM plan for Subpart MM sources must include: procedures to determine and record the cause of an operating parameter exceedance and the time the exceedance began and ended; corrective actions to be taken in the event of an operating parameter exceedance, including procedures for recording the actions taken to correct the exceedance; a maintenance schedule for each control technique and recommendations for routine and long-term maintenance; and an inspection schedule for each continuous monitoring system required under §63.864 to ensure, at least once in each 24-hour period, that each continuous monitoring system is properly functioning.	40 CFR Part 63.866(a).

P. NESHAP Subpart DDDDD, Industrial, Commercial & Institutional Boiler & Process Heaters – “Boiler MACT” – Vacated (Reserved).

Q. COMPLIANCE ASSURANCE MONITORING (CAM)

Q.1 Recovery Boiler (Boiler #10) CAM Requirements

The Permittee shall monitor stack opacity from the recovery furnace control using a continuous opacity monitoring system (COMS). The COMS on the recovery furnace will be calibrated and maintained in accordance with the requirements established in 40 CFR 63.864(d) and 40 CFR Part 60 Appendix B, Performance Specification 1 (PS1).

Begin corrective action when an excursion occurs. Report excursions and violations, and each report shall contain the information listed in Condition Q.9.

#10 Recovery Boiler – PM/ PM₁₀

Emission Unit: Recovery Boiler

Pollutant Controlled: Particulate/ PM₁₀

Control Device: Electrostatic Precipitator

1. Indicator/Parameter	Continuous opacity monitoring system (COMS)
2. Indicator/Parameter Range	Opacity <20% over a 6-minute average
3. Performance Criteria	
a) Data Representativeness	COMS is located in representative location on the stack, opacity is continuously monitored, and data is continually collected by the COMS during operation of the boiler.
b) Verification of Operational Status	The COMS is calibrated in accordance with PS1.
c) QA/QC Practices and Criteria	The COMS is operated in accordance with PS1.
d) Monitoring Frequency & Data Collection Frequency	Opacity values are collected and recorded continuously.

Q.2 Lime Kiln CAM Requirements

Lime Kiln – PM/ PM₁₀

Emission Unit: Lime Kiln (Stacks #1 and #2)

Pollutant Controlled: Particulate/PM₁₀

Control Device: Electrostatic Precipitator

1. Indicator/Parameter	Continuous opacity monitoring system (COMS)
2. Indicator/Parameter Range	Opacity <20% over a 6-minute average
3. Performance Criteria	
a) Data Representativeness	COMS are located in representative locations, opacity is continuously monitored, and data is continually collected by the COMS during operation of the kiln.
b) Verification of Operational Status	The COMS is calibrated in accordance with PS1.
c) QA/QC Practices and Criteria	The COMS is operated in accordance with PS1.
d) Monitoring Frequency & Data collection Frequency	Opacity values are collected and recorded continuously.

Q.3 Hog Fuel Boiler (Boiler #11) CAM Requirements:

The Permittee shall monitor stack opacity from the recovery furnace control using a continuous opacity monitoring system (COMS). The COMS on the hog fuel boiler (boiler #11) will be calibrated and maintained in accordance with the requirements established in 40 CFR 63.864(d) and 40 CFR Part 60 Appendix B, Performance Specification 1 (PS1).

Begin corrective action when an excursion occurs. Report excursions and violations and each report shall contain the information listed in Condition Q.9.

#11 Hog Fuel Boiler – PM/ PM₁₀

Emission Unit: #11 Hog Fuel Boiler

Pollutant Controlled: Particulate/PM₁₀

Control Device: Dry Electrostatic Precipitator

1. Indicator/Parameter	Continuous opacity monitoring system (COMS)
2. Indicator/Parameter Range	Opacity <20% over a 6-minute average
3. Performance Criteria	
a) Data Representativeness	COMS are located in representative locations, opacity is continuously monitored, and data is continually collected by the COMS during operation of the Hog Fuel boiler.
b) Verification of Operational Status	The COMS is calibrated in accordance with PS1.
c) QA/QC Practices and Criteria	The COMS is operated in accordance with PS1.
d) Monitoring Frequency & Data collection Frequency	Opacity values are collected and recorded continuously.

General CAM requirements:

Q.4 Quality Assurance and Control Procedures.

The COMS on the recovery furnace will be calibrated and maintained in accordance with the requirements established in 40 CFR 63.864(d).

Q.5 Obligation to monitor and data availability requirement.

Except for monitoring malfunctions, associated repairs, and required quality assurance and control activities (including, as applicable, calibration checks and required zero and span adjustments). The Permittee shall perform the CAM monitoring described in this section at all times that the affected emission units are in operation. (40 CFR 64.7(c) and 64.6(c)(3)-(4) (10/22/97)

Q.6 Excursions.

The Permittee shall report excursions as defined in the unit specific monitoring requirements. An excursion does not necessarily indicate an exceedence of the applicable particulate emission standards referenced above, nor does evidence of an excursion precluded the Permittee from certifying continuous compliance as provided in condition 35 of this permit if the Permittee has other data on which to base a determination of compliance during the reporting period in which the excursion occurred. (40 CFR 64.6(c)(2)(10/22/97); 40 CFR 70.6(c)(iii)(C) (6/27/03)

Q.7 Response to an excursion.

Upon detecting an excursion, the Permittee shall restore operation of the affected emission unit and/or control device to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practice for minimizing emissions. (40 CFR 64.7(d) and 64.6(c)(3) (10/22/97)

Q.8 Quality Improvement Plan (QIP).

If Ecology or U.S. EPA Region 10 determines, based on the frequency of excursions reported, review of operation and maintenance procedures and records, and reports on corrective action taken in response to an excursion, that the Permittee's corrective action procedures are not consistent with good air pollution control practice for minimizing emissions, Ecology or U.S. EPA Region 10 may require the Permittee to develop and implement a Quality Improvement Plan. (40 CFR 64.8 and 64.6(c)(3) (10/22/97)

Q.9 Reporting.

A monitoring report required by this section shall include: (a) summary information on the number, duration and cause (including unknown cause, if applicable) of each excursion and the corrective action taken; (b) summary information on every failure to meet the data availability requirement in subsection (6) of this section; and (c) a description of the actions taken to implement a QIP during the reporting period, if required. Upon completion of a QIP, the Permittee shall include in the next monthly report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions occurring. (40 CFR 64.9(a) and 64.6(c)(3) (10/22/97)

Q.10 Recordkeeping.

The recordkeeping required by this section shall include records of the monitoring data described in this section, corrective actions taken pursuant to this section, any QIP prepared under Condition Q.9, and any activities taken to implement a QIP. Instead of paper records, the Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche; provided that the use of such alternative media allows for expeditious inspection and review. (40 CFR 64.9(b) and 64.6(c)(3) (10/22/97)

NSPS GENERAL REQUIREMENTS

Affected Units under NSPS	NSPS General Requirement	Applicable Requirement
B (MCC Digester, No. 8 MEE, High solids crystallizer, washing and screening facilities, condensate stripper), E (PB #11), L (NCG Collection/Treatment System), and M (Lime Kiln)	Operate affected units consistent with good air pollution control practices for minimizing emissions.	40 CFR 60.11(d)
B (MCC Digester, No. 8 MEE, High solids crystallizer, washing and screening facilities, condensate stripper), E (PB #11), L (NCG Collection/Treatment System), and M (Lime Kiln)	Concealing an emission that would be a violation is prohibited.	40 CFR 60.12
E (PB #11), L (NCG Collection/Treatment System), and M (Lime Kiln)	Operate and maintain CEMs as required.	40 CFR 60.13
B (MCC Digester, No. 8 MEE, High solids crystallizer, washing and screening facilities, condensate stripper), E (PB #11), L (NCG Collection/ Treatment System), and M (Lime Kiln)	Notification, Recordkeeping, and Credible Evidence.	40 CFR 60.4(a), 40 CFR 60.4(b), 40 CFR 60.11(c) and (g).

FACILITY-WIDE GENERAL REQUIREMENTS [WAC 173-401-600]

These generally applicable requirements apply facility-wide, including insignificant emission units or activities. Activities listed in the permit renewal application table of Facility Wide Insignificant Emission List on the page titled "Insignificant Emission Units" (on page 3–32, Air Operating Permit 000012-4 Renewal Application, Greg Bean to Marc Crooks September 16, 2005) are recognized as insignificant emission units. Insignificant emission units or activities, however, are not subject to monitoring, testing, recordkeeping, reporting, or compliance certification requirements.

1. The permittee cannot vary the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant, except as directed according to air pollution episode regulations. [WAC 173-400-205]
2. The permittee shall not cause or permit emission of any contaminant if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business. [WAC 173-400-040(5)]
3. The permittee shall not install or use any means that conceal or mask an emission of an air contaminant that would otherwise violate provisions in this permit. [WAC 173-400-040(7);]
4. The permittee shall take reasonable precautions to prevent the release of air contaminants from emission units engaged in material handling, construction, demolition, or any other operation that is a source of fugitive emissions. Reasonable precautions include but are not limited to application of water to paved areas and debris piles as necessary to control fugitive dust or the timely removal or coverage of material piles. [WAC 173-400-040(3) (a)]
5. The permittee shall take reasonable precautions to prevent fugitive dust from becoming airborne, and maintain and operate the source to minimize emissions. Reasonable precautions include but are not limited to application of water to paved areas and debris piles as necessary to control fugitive dust or the timely removal or coverage of material piles.[WAC 173-400-040(8)(a)]
6. The following condition is **state-only** and is not federally enforceable under the Clean Air Act: No deposit of particulate matter beyond property line so as to interfere unreasonably with use and enjoyment. [WAC 173-400-040(2)]
7. The following condition is **state-only** and is not federally enforceable under the Clean Air Act: Any person causing odor, which may unreasonably interfere with use & enjoyment of property, must use recognized good practice and procedures to reduce odors to a reasonable minimum. [WAC 173-400-040(4)]
8. The permittee may not cause or allow the emission of a plume from any emission unit other than a Kraft recovery furnace, smelt dissolver tank, or lime kiln, which has an average opacity greater than 20% for more than 6 consecutive minutes in any 60 minute period except as provided in WAC 173-405-040(6). [WAC 173-405-040(6)]
9. Except where specific requirements are defined elsewhere, the Permittee shall assure compliance with conditions 1 through 8 by recordkeeping of actions taken by the permittee in response to complaints received by the permittee or of possible noncompliance noticed by the facility staff in day to day operations. The permittee shall assess the validity of each complaint and commence corrective action, if warranted, as soon as possible but no later than 3 working days of receiving the complaint. The

permittee shall keep records of the following: complaints received; the assessment of validity; and what, if any, corrective action is taken in response to the complaint.

10. The emission of sulfur dioxide from any emissions unit other than a recovery furnace or lime kiln shall not exceed 1,000 parts per million for an hourly average, corrected to 7% oxygen for combustion units. [WAC 173-405-040(11)]
11. Where this permit specifically requires continuous monitoring, the source shall, consistent with the requirements of Ecology's Source Test Manual, calibrate, maintain and operate equipment for continuously monitoring and recording the emissions specified. The source may be temporarily exempted from monitoring and reporting requirements during periods of monitoring system malfunctions, provided that the source shows to Ecology's satisfaction that the malfunction was unavoidable and is being repaired as expeditiously as practicable. [WAC 173-400-105(5) (h)].

Ecology recognizes that monitoring data may be lost for legitimate reasons. The permittee shall make every reasonable effort to acquire, maintain, and recover valid monitoring data. Except where an applicable requirement contains more stringent provisions, permittee shall recover valid monitoring data and recordkeeping for at least 90% of the averaging periods during each month or, if no averaging period is used, collected during each month, in which this permit requires monitoring of a process or parameter. The 10% allowance is contingent on the permittee providing an acceptable explanation for the loss of monitoring data. [WAC 173-401-615]

12. The Permittee shall at all times, including periods of abnormal operation and upset conditions, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to Ecology that may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [WAC 173-405-040(10);]
13. Chemical Accidental Release Program – This stationary source, as defined in 40 CFR section 68.3, is subject to part 68, the accidental release prevention regulations. This stationary source shall submit a risk management plan (RMP) by the date specified in section 68.10. [40 CFR Part 68]
14. Ozone Protection - The Permittee shall comply with the applicable standards for recycling and emissions reductions pursuant to 40 CFR Part 82, Subpart F.
 - a. Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to § 82.156.
 - b. Equipment used during the maintenance, service, repair or disposal must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
 - c. Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" is defined at § 82.152.)
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant purchased and added to such appliances must do so in compliance with §82.166.

15. Reserved for future use.

16 The generally applicable requirements that apply to IEUs are WAC 173-405-040(5), WAC 173-400-050(1) & (3), and WAC 173-400-060. [WAC 173-401-530(2) (b)]

17. The Permittee will continue to comply with applicable requirements with which the Permittee is in compliance. WAC 173-401-630(3) and 510(2) (h) (iii) (A)

The Permittee will meet applicable requirements that become effective during the permit term on a timely basis. WAC 173-401-630(3) and 510(2) (h) (iii) (B)

18. Volatile Organic Liquid Storage Vessels - The Permittee shall keep records showing the dimensions and capacities of all storage vessels having capacities greater than or equal to 40 cubic meters that are used to store volatile organic liquids and for which construction, reconstruction, or modification commenced after July 23, 1984. These records are to be kept for the life of each storage vessel. [40 CFR 60.116b (a) and (b)]

19. Reserved for future use.

20. The following condition is **state-only** and is not federally enforceable under the Clean Air Act. The permittee cannot burn used oil not meeting standards prescribed in RCW 70.94.610(1). [RCW 70.94.610]

21. The permittee must comply with 40 CFR sections 61.145 and 61.150 and WAC 173-400-075 if asbestos-containing material is present above specified quantities in a facility being demolished or renovated. [40 CFR Part 61, Subpart M]

MONITORING, RECORDKEEPING & REPORTING

Monitoring Requirements [WAC 173-401-630(5) (b).]

22. Unit-Specific Requirements. The permittee shall conduct routine monitoring of emissions in accordance with the program of monitoring or testing required by specific emission unit conditions of this permit. [WAC 173-405-072].

23. Unavoidable Excess Emissions. This condition applies, where applicable, to excess emissions that are claimed to be unavoidable pursuant to WAC 173-400-107. The permittee may include in its reports demonstrations that excess emissions were unavoidable, consistent with the requirements of WAC 173-400-107. The permittee shall have the burden to prove that deviations from permit terms were unavoidable. Excess emissions that are unavoidable are excused and are not subject to penalty. [WAC 173-400-107]

24. Reserved for Future Use

25. Reserved for Future Use

Recordkeeping Requirements

26. The permittee shall keep records of any periodic and continuous monitoring required by this permit. These records shall include the following, where applicable:
 - a. The date, place as defined in requirement, and time of sampling or measurement;
 - b. The date(s) analysis was performed;
 - c. The company or entity that performed the analysis;
 - d. The analytical techniques or methods used;
 - e. The results of such analysis;
 - f. Inspector sign name;
 - g. The operating conditions existing at the time of sampling or measurement. [WAC 173-401-615(2) (a); WAC 173-400-105]
27. The permittee shall keep records describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes. [WAC 173-401-724(5).]
28. The permittee shall retain records of all required monitoring data and support information for a period of 5 years from the date of monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [WAC 173-401-615(2) (c)]
29. The permittee shall maintain a contemporaneous record of any deviation from the requirements of this permit. [WAC 173-401-615(3) (b).]

Reporting Requirements [WAC 173-401-520, -615(3), & -710]

30. In addition to any emission unit specific reporting requirements identified below, emission unit specific reporting requirements are identified in conditions A through Q.
31. Report within 15 days of the end of each month average daily production of air-dried unbleached pulp. [WAC 173-405-072(4)]
32. Monitoring reports required by this permit must be submitted to Ecology within 15 days of the end of each calendar month. [WAC 173-405-072]. The reports must clearly identify all instances of deviations from permit requirements. [WAC 173-401-615(3) (a)]
33. Submit an inventory of emissions from the source each year no later than 105 days after the end of the calendar year; maintain records of information necessary to substantiate any reported emissions. [WAC 173-400-105(1)]
34. The permittee shall promptly submit a report of any deviations from permit conditions. [WAC 173-401-615(3) (b).]
 - a. For purposes of this permit, submitting a report "promptly" means the following: (a) if the deviation presents a potential threat to human health or safety, the report shall be made as soon

as possible but no later than 12 hours after the discovery of the deviation; (b) for other deviations, "promptly" means that the deviations are identified in the respective monthly report.

b. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken. [WAC 173-401-615(3)]. The permittee may include in its reports demonstrations that excess emissions were unavoidable, consistent with the requirements of WAC 173-400-107.

35. Certification of truth, accuracy, and completeness. Any application form, report or compliance certification required to be submitted by this permit or by Chapter 401 WAC shall contain certification by a responsible official of truth, accuracy and completeness. Where the permit requires reporting more frequently than once every 3 months the responsible official's certification need only be submitted once every 3 months covering all required reporting since the date of the last certification. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [WAC 173-401-520.]

36. All reports and renewal applications required by this permit shall be submitted to:

Department of Ecology
Industrial Section
P.O. Box 47600
Olympia, WA 98504-7600

37. Compliance Certification. The permittee shall submit a report to the Department of Ecology and to EPA Region 10 12 months after the effective date of this permit and every year thereafter, within 45 days after the close of the year that the certification covers, certifying compliance with the terms and conditions contained in this permit. The term "year" means a consecutive 365 day period and does not refer to a calendar year. The certification shall describe the following:

- a. the permit term or condition that is the basis of the certification;
- b. the compliance status;
- c. whether compliance was continuous or intermittent; and
- d. the methods used for determining compliance. [WAC 173-401-630(5)]

The permittee is not required to certify compliance for insignificant emission units or activities. [WAC 173-401-530(2) (d)]

STANDARD TERMS & CONDITIONS

38. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of chapter 70.94 RCW and, for federally enforceable provisions, a violation of the FCAA. Such violations are grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [WAC 173-401-620(2) (a).]

39. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [WAC 173-401-620(2) (b).]

40. Permit Actions. This permit may be modified, revoked, reopened, and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [WAC 173-401-620(2) (c).]
41. Property Rights. This permit does not convey any property rights of any sort, or any exclusive privilege. [WAC 173-401-620(2) (d).]
42. Duty to Provide Information. The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the EPA administrator along with a claim of confidentiality. Permitting authorities shall maintain confidentiality of such information in accordance with RCW 70.94.205. [WAC 173-401-620(2) (e).]
43. Permit Fees. The permittee shall pay fees as a condition of this permit in accordance with the permitting authority's fee schedule. Failure to pay fees in a timely fashion shall subject the permittee to civil and criminal penalties as prescribed in chapter 70.94 RCW. [WAC 173-401-620(2) (f).]
44. Emissions Trading. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit. [WAC 173-401-620(2) (g).]
45. Severability. If any provision of this permit is held to be invalid, all unaffected provisions of the permit shall remain in effect and be enforceable. [WAC 173-401-620(2) (h).]
46. Permit Appeals. This permit or any conditions in it may be appealed only by filing an appeal with the pollution control hearings board and serving it on the permitting authority within thirty days of receipt pursuant to RCW 43.21B.310. This provision for appeal in this section is separate from and additional to any federal rights to petition and review under § 505(b) of the FCAA. [WAC 173-401-620(2) (i).]
47. Permit Continuation. This permit is issued for a 5 year term; however, this permit and all terms and conditions contained therein, including any permit shield provided under WAC 173-401-640, shall not expire until the renewal permit has been issued or denied if a timely and complete application has been submitted. An application shield granted pursuant to WAC 173-401-705(2) shall remain in effect until the renewal permit has been issued or denied if a timely and complete application has been submitted. [WAC 173-401-620(2) (j).]
48. Inspection and Entry. Upon consent of the permittee or upon presentation of credentials and other documents as may be required by law, the Department of Ecology or an authorized representative shall be allowed to:
 - (1) Enter the source;
 - (2) Have access to and copy at reasonable times any records that must be kept under this permit;
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - (4) As authorized by WAC 173-400-105 and the FCAA, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements.

[WAC 173-400-105(4); WAC 173-401-630(2).]

49. Risk Management Programs. In accordance with 40 CFR Part 68, if the permittee has or receives more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, the permittee shall comply with the requirements of the Chemical Accident Prevention Provisions of 40 CFR Part 68 no later than the following dates:

- (1) Three years after the date on which a regulated substance is first listed under 40 CFR 68.130; or
- (2) The date on which a regulated substance is first present above a threshold quantity in a process.
(40 CFR 68)

The permittee shall certify compliance with this requirement as part of the permittee's annual compliance report.

PERMIT SHIELD

Pursuant to WAC 173-401-640(1), compliance with the terms and conditions of this permit is deemed to constitute compliance with applicable requirements as contained in this permit on which the term or condition is based, as of the date the permit is issued. This permit shield does not exempt the Permittee from requirements, determined to be applicable, enacted after the permit issuance date. This permit shield shall not apply to any insignificant emission unit or activity designated under WAC 173-401-530. (WAC 173-401-530(3))

Pursuant to WAC 173-401-640(2), the Department of Ecology has determined that the requirements listed in Appendix A to this permit do not apply to the facility, as of the date the permit is issued, for the reasons specified.

Appendix A - Permit Shield/Inapplicable Requirements

The following requirements do not apply to the facility as of the date of permit issuance for the reasons indicated:

CITATION	BRIEF DESCRIPTION	REASON INAPPLICABLE
40 CFR Part 60 Subpart Da, Standards of Performance for Electric Utility Steam Generators (construction or modification commenced after 9/18/78)	applies to the following types of generating units for which construction or modification commenced after September 18, 1978: generating greater than 250 MMBtu/Hr	Facility does not have this emission unit.
40 CFR Part 60 Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (construction or modification commenced after 7/19/84)	applies to the following types of generating units for which construction or modification commenced after July 19, 1984: generating greater than 29 MW (100 MMBtu/Hr)	Facility does not have this emission unit.
40 CFR Part 60 Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	applies to the following types of generating units for which construction or modification commenced after June 9, 1989: generating greater than 10 MMBtu/Hr and less than 100 MMBtu/hr	Facility does not have this emission unit.
40 CFR §60.110a	Subpart Kb, Standards of Performance for Storage Vessels for Petroleum Liquids with a capacity greater than 40,000 gallons and for which construction is commenced after May 18, 1978.	Fuel oil tanks at the site have not been modified since the applicability date. All other tanks are either below the size applicability criteria or do not contain volatile organic liquids.
40 CFR 63, Subpart Q as amended through 9/8/94	No chromium based water treatment chemicals may be used in industrial process cooling towers	The facility does not use chromium based water treatment chemicals
SWAPCA Order of Approval 78-302 as amended through 1/16/78	approval to operate Pacific Lamination	Weyerhaeuser does not own or operate this source
SWAPCA Order of Approval 78-3015 as amended through 2/2/78	approval to operate Pacific Lamination	Weyerhaeuser does not own or operate this source
WAC 173-400-040(3)(b)	emissions unit identified as a significant contributor to nonattainment must use reasonable and available control methods to control emissions of contaminants for which area is designated nonattainment	The facility is not in a special control/nonattainment area

WAC 173-400-040(8)(b)	Sources of fugitive dust identified as significant contributors to a PM-10 nonattainment area must use RACT to control fugitive dust emissions.	The facility is not in a special control/nonattainment area
WAC 173-400-070 as amended through 2/19/91	emission standards for certain source categories	The facility is not in this source category and hogged fuel boilers regulated under 173-405 WAC
WAC 173-400-100 Registration	Registration required for listed sources, excluding sources subject to the operating permit program, after EPA grants interim or final approval to the state program.	Facility is subject to the operating permit program; EPA has granted interim approval for the state program.
WAC 173-400-105(6)	Applies to sources that are not subject to operating permit program.	Facility is subject to the operating permit program.
WAC 173-400-151 Retrofit requirements for visibility protection	BART required for sources to which significant visibility impairment of a Class 1 area is reasonably attributable.	The Weyerhaeuser Longview Facility has completed a BART evaluation for BART eligible units, and Ecology has proposed BART emission limits for the site, but here are currently no applicable retrofit requirements for visibility protection at the site.
WAC 173-405-040(1)(b) as amended through 2/1/95 <i>[STATE ONLY, NOT FEDERALLY ENFORCEABLE]</i>	17.5 ppm daily average TRS limit for recovery furnaces constructed before 1/1/70 and recovery furnaces with direct contact evaporators	RF #10 built after 1/1/70 without direct contact evaporator
Chapter 173-410 WAC; Sulfite Pulping Mills		facility is not a sulfite pulping mill
Chapter 173-433 WAC as amended through 2/3/93; Solid Fuel Burning Devices	Applies to wood stoves and fireplaces.	facility does not operate such devices
WAC 173-435-050(2)	no open fires during an air pollution episode	Facility does not conduct open burning.
Chapters 173-470, 474, 475, 480, 481 WAC	Ambient Air Quality Standards	AAQS apply to air sheds, not individual sources
Chapter 173-490 WAC	Emission Standards and Controls for Sources of VOCs	The facility is not in a special control/nonattainment area
40 CFR Part 60, Subpart DDDDD, and WAC 173-400-050(4), Commercial Industrial Solid Waste Incinerator (CISWI) Rules	Emission guidelines and compliance standards for commercial and industrial solid waste incineration units.	No affected facilities on site. The NCG Thermal Oxidizer is exempt as a pulping liquor recovery unit, because turpentine and methanol are managed as pulping liquors and pulping chemicals are recovered after combustion.
WAC 173-434 Solid Waste Incinerator Facilities (as revised 2003)	Regulates incineration of solid waste, including MSW, other than creosote treated wood, in amounts greater than 12 tons per day.	No units on site combust 12 tons per day or more of solid waste.

40 CFR Part 63, Subpart ZZZZ, NESHAP for Paper and Other Web Coating (POWC)	MACT standard for controlling HAP from processes applying a coating to paper or other web substrates.	Does not apply to papermaking systems, but to systems that apply coatings to paper (or other web) products. EPA guidance has clarified that this MACT standard does not apply to size presses or other on-machine coating systems. There are no affected paper coating facilities at the site.
40 CFR Part 63, Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines ("RICE" MACT Rule)	MACT Standards for stationary reciprocating internal combustion engines with a size-rating of more than 500 brake horsepower located at a major source of HAP emissions.	Backup Fire Water Diesel Pumps are exempt as emergency backup equipment, run only for maintenance, testing and emergencies. "A stationary RICE which is ... an existing emergency stationary RICE... Does not have to meet the requirements of this subpart."
40 CFR Part 63, Subpart NNNNN, NESHAP for Hydrochloric Acid Production (HCL MACT)	MACT Standards for hydrochloric acid production plants that are not subject to 40 CFR part 63, subpart S, NESHAP from the Pulp and Paper Industry, or other specifically listed NESHAP subparts.	Not applicable because HCL generator is completely integrated component of Chlorine Dioxide Generator, which is defined as part of the Bleach Plant under Subpart S.
40 CFR Part 63, Subpart GGGGG, NESHAP for Site Remediation	Establishes MACT control standards for certain remediation processes and activities at remediation sites involving one or more of 97 listed organic HAP compounds.	There are no remediation activities subject to the rule. CERCLA sites, RCRA corrective actions, UST cleanups, or remediation actions extracting less than 1 Mg (10000 kg) of HAP per year.

Appendix B - Definitions of Abbreviations Used in Permit

AAQS	ambient air quality standard
ADMT	air dry metric ton
avg	average
BACT	Best available control technology
BART	Best available reasonable technology
BDMT	bone dry metric ton
BL	black liquor
BLS	black liquor solids
BTU	British thermal unit
CEM	continuous emission monitor
CMS	Continuous Monitoring System
CO	carbon monoxide
DOE	Department of Ecology
dscf	dry standard cubic foot
EPA	Environmental Protection Agency
ESP	electrostatic precipitator
FCAA	Federal Clean Air Act
FW	Facility wide general requirements
gpm	gallons per minute
gr	grain
HAP	hazardous air pollutant
HSC	High Solids Crystallizer
IEU	insignificant emission unit
kg	kilogram
lbs	pounds
LM	lime mud
MACT	maximum available control technology
MBF	Thousand Board Feet
MMBTU	million British thermal units
MR	Monitoring, recording and reporting
NO _x	oxides of nitrogen
NCG	noncondensable gas
NESHAP	National Emission Standards for Hazardous Air Pollutants
NSPS	new source performance standards
ORP	Oxidation Reduction Potential
Perf. Spec.	Performance Specification
PM	particulate matter
PM-10	particulate matter less than 10 microns in diameter
ppm	parts per million
ppmdv	part per million dry volume
RC	Recordkeeping requirements
RF, RB	recovery furnace, recovery boiler
RACT	Reasonable available control technology
RM	Reference method
SERP	source emission reduction plan
SIP	state implementation plan
SO ₂	sulphur dioxide
TC	Standard terms and conditions
tpy	tons per year
TRS	total reduced sulphur
TSP	total suspended particulate
U.S.C.	United States Code

VOC volatile organic compound
WAC Washington Administrative Code

Appendix C - Algorithms for Emissions Calculation

Note: the Permittee may use an equivalent alternative method with written approval by Ecology

Averages over time specified in emission limits shall be determined by the arithmetic mean of measurements taken during the specified time period.

Permit Conditions E.2b, E.5, E.6, E.7, E.8, E.9, E.10 Particulate Matter, SO₂, NO_x (mass per fuel heat input)

= (Concentration * Air Flow Rate * Unit Conversion Factor) / Heat Input

Concentration comes from EPA RM 5 or DOE RM 5, RM6, or RM7 as specified in the respective condition, and gives results in terms of gr/dscf or lbs/ft³.

Air Flow is calculated per specified RM 5.

Unit Conversion Factor is case specific. For example 1 lb = 7,000 grains.

Heat Input is calculated by multiplying the measured steaming rate by the rated efficiency of the boiler. The boiler manufacturer's rated efficiency is 64.23%. If future performance tests demonstrate a different efficiency, that may be used to calculate heat input after consultation with the Department of Ecology.

Permit Conditions H.5, H.8, I.5 Particulate Matter (mass per time)

= Concentration * Air Flow Rate * Unit Conversion Factor * Black Liquor Solids Firing Rate * Black Liquor Solids Fired

Concentration, whether EPA RM 5 or DOE RM 5 as specified in the respective condition, gives results in terms of gr/dscf.

Air Flow is calculated per specified RM 5.

Unit Conversion Factor is case specific. For example 1 lb = 7,000 grains.

Black Liquor Solids Firing Rate is the average firing rate during the stack test.

Black Liquor Solids Fired is the total tons fired over the period in question.

Permit Condition H.13, J.9 SO₂ (mass per time)

Permit Condition H.15, I.10 TRS (mass per time)

Permit Condition H.17 NO_x (mass per time)

= concentration x air flow x natural gas law conversion x black liquor solids firing rate * black liquor solids fired

Concentration is in terms of ppm_{dv} at standard conditions. It is derived either from average CEM values over the period of the particulate testing (e.g. SO₂ on the Recovery Boiler) or from stack testing using specified RM (e.g. TRS on the smelt dissolver tank vent).

Air Flow is calculated per specified particulate test from the respective emission unit.

Natural Gas Law Conversion is case specific. It converts ppm to mass per volume of air and is dependent on the molecular weight of the specific pollutant.

Black Liquor Solids Firing Rate is the average firing rate during the stack test.

Black Liquor Solids Fired is the total tons fired over the period in question.

Permit Conditions I.3, I.4 Particulate Matter (mass/mass BLS)

$$= \frac{(\text{Concentration} \times \text{Air Flow Rate} \times \text{Unit Conversion Factor} \times \text{Time Adjustment})}{\text{Black liquor solids firing rate}}$$

Concentration is in terms of gr/dscf .

Air Flow is calculated per specified RM 1 and 2.

Unit Conversion Factor is case specific. For example 1 lb = 7,000 grains.

Time Adjustment is case specific and is dependent on the flow rate time unit. For example, if the flow rate from a RM 1 and 2 was in terms of dscfm and the black liquor firing rate is in hours then the time adjustment would be 60 minutes/hour.

Black liquor solids firing rate is the “as-fired” firing rate average for the test period. The firing rate is in terms of mass per time.

Permit Condition I.8 TRS (mass per BLS)

$$= \frac{(\text{TRS}(\text{mass}) \times \text{Air Flow Rate} \times \text{Unit Conversion Factor} \times \text{Time Adjustment})}{\text{Black liquor solids firing rate}}$$

TRS mass is converted from Method 16 or 16a concentration in terms of ppm by multiplying by the respective MW of the four TRS compounds for Method 16 or by the MW of SO₂ for Method 16A.

Air Flow is calculated as specified in RM 1, 2, 3 & 4.

Unit Conversion Factor is case specific. For example 1 lb = 7,000 grains.

Time Adjustment is case specific and is dependent on the flow rate time unit. For example, if the flow rate from a RM 1 and 2 was in terms of dscfm and the black liquor firing rate is in hours then the time adjustment would be 60 minutes/hour.

Black liquor solids firing rate is the “as-fired” firing rate average for the test period. The firing rate is in terms of mass per time.

Appendix D – Orders, Permits, and Operational Practices

The specific applicable elements of these documents have been incorporated into the permit itself. The documents in entirety are kept on file and available for public review in Ecology's Industrial Section. The objective is to maintain the permit as a practical field document.

PSD-92-03 Amendment 4

Order No. DE 98AQ-I046

PSD 97-01

Order No. DE 95AQ-I035

Order No. DE 96AQ-I093

Order No. DE 95AQ-I076

Order No. DE 97AQ-I041

Order No. DE 94AQ-I080

Order No. DE 97 AQ I087 Amendment 1

Order No. 4372