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## **AIR OPERATING PERMIT 000007-8**

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In compliance with the provisions of The State of Washington  
Clean Air Act Chapter 70.94 Revised Code of Washington

**Longview Fibre Paper and Packaging, Inc.**  
**P.O. Box 639**  
**Longview, WA 98632**

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

Issued by:

State of Washington  
DEPARTMENT OF ECOLOGY  
300 Desmond Drive  
P.O. Box 47600  
Olympia, Washington 98504-7600

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## **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.

Longview Fibre Paper and Packaging, Inc. (LFPP) requires a Title V Air Operating Permit because it emits or has the potential to emit, one hundred tons or more per year of one or more regulated air pollutants [WAC 173-401-300(1)].

Ecology has attempted to incorporate requirements using the exact language of the law, regulation, or order into the Air Operating Permit. Where there is a difference, the legal requirement remains the underlying requirement unless the difference is specifically addressed in this permit and/or in past orders or permits referenced in this permit. 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 permittee shall submit a Report of Compliance Certification of the terms and conditions contained in this permit as required in General Condition 35, including certification of compliance with all applicable requirements.

The Title V Air Operating Permit consists of all parts of this assembled document including all Appendices, but does not include the accompanying Support Document, nor the Title V permit application materials submitted by LFPP, nor any other past orders or permits.

The definition 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. All terms and conditions except state-only requirements are enforceable under the Federal Clean Air Act (FCAA). State-only requirements are specifically identified in the permit.

## **EMISSION UNIT SPECIFIC REQUIREMENTS**

[WAC 173-401-600]

The emission units covered by conditions A through M are subject to the following emission limits, and monitoring and reporting requirements. Monitoring is required only when the emission unit is operating. These units are also subject to the facility-wide applicable requirements and the associated monitoring, recordkeeping and reporting requirements for these limits in the Facility-Wide section of this permit. The permittee may use an equivalent method with prior written approval from Ecology. Unless specified otherwise, the basis of authority for the type and frequency of monitoring imposed in conditions A through N is WAC 173-401-615 or WAC 173-401-630(1).

Insignificant emission units (IEUs) are subject to the applicable requirements contained in the Facility-Wide section, however they are not subject to testing, monitoring, recordkeeping, reporting or certification requirements unless the generally applicable requirements in the State Implementation Plan (SIP) impose them [WAC 173-401-530(2)(c)].

The reference test method (RM) or compliance determination algorithm is identified or referenced in the column titled "Monitoring and Reporting". These algorithms set forth the manner by which emissions are calculated for those requirements for which the Reference Method itself does not directly result in an emissions estimate. The permittee may use an equivalent method with prior written approval from Ecology.

**A1. RECOVERY FURNACE 15**

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
A1.1	PM&PM10	0.033 gr/dscf @ 8% O <sub>2</sub> , 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2 and footnote A1F.1). Report results in monthly report for month tested.	PSD 01-03.
	PM	0.10 gr/dscf @ 8% O <sub>2</sub> , 1-hr average.	Same as for previous limit.	WAC 173-405-040(1)(a).
	PM&PM10	182.5 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A1.2	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period.	Monitor continuously using PS 1. (see appendix ApA.2 and footnote A1F.2). See 1&4 in appendix B for data recovery requirements. Report daily maximum concentrations, daily average concentrations, and excursions monthly. Compliance may also be determined using RM 9.	Order 01AQIS-3924.
		35% average for more than 6 consecutive minutes in any 60 minute period.	Same as for previous limit.	WAC 173-405-040(6).
A1.3	SO <sub>2</sub>	60 ppmdv @ 8% O <sub>2</sub> , 3-hr average.	Sample M/Q using RM 6C (see appendix ApA.2). Report test results in monthly report for months when tested.	PSD 01-03.
		500 ppm @ 8% O <sub>2</sub> , 1-hr average.	Same monitoring as for previous limit. Report excursions monthly.	WAC 173-405-040(11)(a).
		365 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A1.4	TRS (assume all TRS is H <sub>2</sub> S)	17.5 ppmdv @ 8% O <sub>2</sub> , 24-hr average.	Monitor continuously using PS 5 (see appendix ApA.2 and footnote A1F.3). See 1&4 in appendix B for data recovery requirements. Report daily maximum concentrations, 24-hr average concentrations, monthly average concentration, maximum monthly 24-hr concentration, and excursions monthly.	PSD 01-03.
		59 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A1.5	CO	630 lb/hr, 8-hr average.	Sample A/M using RM 10 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
		2759 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A1.6	NO <sub>x</sub>	95 ppmdv @ 8% O <sub>2</sub> , 24-hr average.	Sample A/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.

Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
	434 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A1.7	O <sub>2</sub>	no limit – required for O <sub>2</sub> correction.	Monitor continuously using PS 3. See 1&4 in appendix B for data recovery requirements.
A1.8	Operating Limit	1150 TBLS/D, monthly average.	Report average daily BLS production in tons monthly (see Appendix ApA.1).
A1.9	HAPS	Particulate surrogate: 0.044 gr/dscf @ 8% O <sub>2</sub> .	Monitor opacity with a continuous opacity monitor meeting the requirements of 40 CFR 63.6(h) and 63.8. See 1&2 in appendix B for data recovery requirements. Begin corrective action, as specified in the SSM plan (see condition A1.10), when an exceedence occurs (the average of any 10 consecutive 6-minute averages exceed 20% and scrubber flow is ≤2500 gpm). A violation occurs when opacity exceeds 35% for ≥ 6% of the operating time during a quarter, not including applicable periods of startup, shutdown, or malfunction. Report time, date, average opacity, and corrective action for exceedences monthly; and report violations quarterly.
			40 CFR 63.862(a)(i) for limit; 40 CFR 63.864(d) for monitoring; 40 CFR 63.864 (k)(1) for corrective action; 40 CFR 63.864 (k)(2) for violation definition; 40 CFR 63.864 (k)(3) for number of exceedences per period. 40 CFR 63.6(h) for SSM exclusion.

A1.10	SSM Plan [40 CFR 63.6(e)(3)(i) & 40 CFR 63.866(a)] - shall comply with the SSM plan requirements identified in section J of this AOP.		
A1.11	The annual heat input from fossil fuels shall be less than 10 percent of the potential annual heat input from all fuels. Compliance shall be determined by procedures in 40 CFR Part 60.45b. Fuel oil with a sulfur content greater than 0.5 percent may not be burned except during emergency conditions, such as a malfunction in the natural gas supply line serving the area or the mill. During such conditions oil with a sulfur content greater than 0.5 percent shall only be burned during startups, shutdowns or to burn out a high bed. When oil is burned under non-emergency conditions then LFPP shall demonstrate low sulfur oil content firing by keeping a record of the times, volumes, and sulfur content and maintaining at LFPP fuel receipts from the fuel supplier which certify that the oil meets the fuel sulfur limit. Tall oil with sulfur content not to exceed 0.5 percent sulfur by weight may be substituted for fuel oil. (Order 3462-AQ07).		

A1.12 The following **state-only** requirement is not federally enforceable under the federal Clean Air Act:

A1.12	TRS	17.5 ppmv @ 8% O <sub>2</sub> , 24-hr average.	Monitor continuously using PS 5 (see appendix ApA.2). Report excursions monthly.	WAC 173-405-040(1)(b).
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Footnotes:

A1F.1	During source tests for PM and PM <sub>10</sub> on all recovery furnaces, primary voltage, primary current, opacity, and spark rate for the electrostatic precipitator shall be recorded for each field once during each source test. In addition, secondary voltage and secondary current data shall also be collected once during each source test when available. All precipitator data shall be maintained in a file with corresponding test data. Precipitator data shall be submitted to Ecology when the PM and PM <sub>10</sub> source test results exceed the permit limit. The department may modify or waive this requirement. (PSD 01-03).
A1F.2	Scrubber monitoring is required when exhaust gasses are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. LFPP shall continuously monitor opacity upstream of the scrubber and scrubber flow rate. If the opacity monitor indicates a six minute average opacity ≤20%, LFPP must maintain a scrubber flow rate greater than 2000 gpm on an hourly average. If the opacity monitor indicates a six minute average opacity >20%, LFPP must maintain a scrubber flow rate greater than 2500 gpm on an hourly average. The scrubber flow rate shall be continuously monitored and the flow rate recorded every 4 hours. Whenever flow drops below the prescribed rates, LFPP will immediately, but no later than within 24 hours, initiate corrective action to bring the flow within prescribed parameters. Failure to take corrective action is a violation of the permit. LFPP shall report episodes of failure to maintain adequate flow and the corrective actions taken on the monthly report. (Order 3462-AQ07).
A1F.3	The continuous TRS monitoring requirement does not apply during time periods when the TRS monitoring equipment is being used to conduct a required SO <sub>2</sub> source test. (PSD 01-03).

**A2. RECOVERY FURNACE 18**

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
A2.1	PM&PM10	0.044 gr/dscf @ 8% O <sub>2</sub> , 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2 and footnote A2F.1). Report results in monthly report for month tested.	PSD 01-03.
	PM	0.10 gr/dscf @ 8% O <sub>2</sub> , 1-hr average.	Same as for previous limit.	WAC 173-405-040(1)(a).
	PM&PM10	219 TPY, monthly average.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A2.2	Opacity	35% average for more than 6 consecutive minutes in any 60 minute period.	Monitor continuously using PS 1 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report daily maximum concentrations, daily average concentrations, and excursions monthly. Compliance may also be determined using RM 9.	WAC 173-405-040(6) and Order 3462-AQ07 for basis of limit. Order 3462-AQ07 for basis of monitoring.
A2.3	SO <sub>2</sub>	94 lb/hr, 3-hr average.	Monitor continuously using PS 2 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report 3-hr average concentrations, monthly average concentration, maximum monthly 3-hr average concentration, and excursions monthly.	PSD 01-03.

Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
	500 ppm @ 8% O <sub>2</sub> , 1-hr average.	Same monitoring as for previous limit. Report excursions monthly.	WAC 173-405-040(11)(a).
	202 TPY, monthly average.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A2.4	TRS (assume all TRS is H <sub>2</sub> S) 17.5 ppm <sub>dv</sub> @ 8% O <sub>2</sub> , 24-hr average.	Monitor continuously using PS 5 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report daily maximum concentrations, 24-hr average concentrations, monthly average concentration, maximum monthly 24-hr concentration, and excursions monthly.	PSD 01-03.
	62 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A2.5	CO 360 lb/hr, 8-hr average.	Sample A/M using RM 10 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
	1577 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A2.6	NO <sub>x</sub> 95 ppm <sub>dv</sub> @ 8% O <sub>2</sub> , 24-hr average.	Sample A/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
	452 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A2.7	O <sub>2</sub> no limit – required for O <sub>2</sub> correction.	Monitor continuously using PS 3. See 1&4 in appendix B for data recovery requirements.	Order 3462-AQ07.
A2.8	Operating Limit 1200 TBLS/D, monthly average.	Report average daily BLS production in tons monthly (see Appendix ApA.1).	PSD 01-03.
A2.9	HAPS Particulate surrogate: 0.044 gr/dscf @ 8% O <sub>2</sub> .	Monitor opacity with a continuous opacity monitor meeting the requirements of 40 CFR 63.6(h) and 63.8. See 1&2 in appendix B for data recovery requirements. Begin corrective action, as specified in the SSM plan (see condition A2.11), when an exceedence occurs (the average of any 10 consecutive 6-minute averages exceed 20%). A violation occurs when opacity exceeds 35% for ≥ 6% of the operating time during a quarter, not including applicable periods of startup, shutdown, or malfunction. Report time, date, average opacity, and corrective action for exceedences monthly; and report violations quarterly.	40 CFR 63.862(a)(i) for limit; 40 CFR 63.864(d) for monitoring; 40 CFR 63.864 (k)(1) for corrective action; 40 CFR 63.864 (k)(2) for violation definition; 40 CFR 63.864 (k)(3) for number of exceedences per period. 40 CFR 63.6(h) for SSM exclusion.

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
A2.10	VOCs	612 TPY, 12-month total.	Sample triennially using RM 25A (see appendix ApA.2). Calculate per appendix ApA.3. Report test results in monthly report for month tested. Report 12-month total monthly.	PSD 01-03.

A2.11	SSM Plan [40 CFR 63.6(e)(3)(i) & 40 CFR 63.866(a)] - shall comply with the SSM plan requirements identified in section J of this AOP.			
A2.12	The annual heat input from fossil fuels shall be less than 10 percent of the potential annual heat input from all fuels. Compliance shall be determined by procedures in 40 CFR Part 60.45b. Fuel oil with a sulfur content greater than 0.5 percent may not be burned except during emergency conditions, such as a malfunction in the natural gas supply line serving the area or the mill. During such conditions oil with a sulfur content greater than 0.5 percent shall only be burned during startups, shutdowns or to burn out a high bed. When oil is burned under non-emergency conditions then LFPP shall demonstrate low sulfur oil content firing by keeping a record of the times, volumes, and sulfur content and maintaining at LFPP fuel receipts from the fuel supplier which certify that the oil meets the fuel sulfur limit. Tall oil with sulfur content not to exceed 0.5 percent sulfur by weight may be substituted for fuel oil. (Order 3462-AQ07).			

A2.13 The following **state-only** requirement is not federally enforceable under the federal Clean Air Act:

A2.13	TRS	17.5 ppmv @ 8% O <sub>2</sub> , 24-hr average.	Monitor continuously using PS 5 (see appendix ApA.2). Report excursions monthly.	WAC 173-405-040(1)(b).
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Footnotes:

A2F.1	During source tests for PM and PM <sub>10</sub> on all recovery furnaces, primary voltage, primary current, opacity, and spark rate for the electrostatic precipitator shall be recorded for each field once during each source test. In addition, secondary voltage and secondary current data shall also be collected once during each source test when available. All precipitator data shall be maintained in a file with corresponding test data. Precipitator data shall be submitted to Ecology when the PM and PM <sub>10</sub> source test results exceed the permit limit. The department may modify or waive this requirement. (PSD 01-03).			
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### A3. RECOVERY FURNACE 19

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
A3.1	PM&PM10	0.040 gr/dscf @ 8% O <sub>2</sub> , 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2 and footnote A3F.1). Report results in monthly report for month tested.	PSD 01-03.
	PM	0.10 gr/dscf @ 8% O <sub>2</sub> , 1-hr average.	Same as for previous limit.	WAC 173-405-040(1)(a).
	PM&PM10	292 TPY, monthly average.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
A3.2	Opacity	30% average for more than 6 consecutive minutes in any 60 minute period.	Monitor continuously using PS 1 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report daily maximum concentrations, daily average concentrations, and excursions monthly. Compliance may also be determined using RM 9.	Order 3462-AQ07.
		35% average for more than 6 consecutive minutes in any 60 minute period.	Same as for previous limit.	WAC 173-405-040(6).
A3.3	SO <sub>2</sub>	149 lb/hr, 3-hr average.	Monitor continuously using PS 2 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report 3-hr average concentrations, monthly average concentration, maximum monthly 3-hr average concentration, and excursions monthly.	PSD 01-03.
		500 ppm @ 8% O <sub>2</sub> , 1-hr average.	Same monitoring as for previous limit. Report excursions monthly.	WAC 173-405-040(11)(a).
		301 TPY, monthly average.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A3.4	TRS (assume all TRS is H <sub>2</sub> S)	10.0 ppm <sub>dv</sub> @ 8% O <sub>2</sub> , 24-hr average.	Monitor continuously using PS 5 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report daily maximum concentrations, 24-hr average concentrations, monthly average concentration, maximum monthly 24-hr concentration, and excursions monthly.	PSD 01-03.
		59 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A3.5	CO	600 lb/hr, 8-hr average.	Sample A/M using RM 10 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
		2628 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A3.6	NO <sub>x</sub>	95 ppm <sub>dv</sub> @ 8% O <sub>2</sub> , 24-hr average.	Sample A/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
		753 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A3.7	O <sub>2</sub>	no limit – required for O <sub>2</sub> correction.	Monitor continuously using PS 3. See 1&4 in appendix B for data recovery requirements.	Order 3462-AQ07.
A3.8	Operating Limit	2000 TBLS/D, monthly average.	Report average daily BLS production in tons monthly (see Appendix ApA.1).	PSD 01-03.

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
A3.9	HAPS	Particulate surrogate: 0.044 gr/dscf @ 8% O <sub>2</sub> .	Monitor opacity with a continuous opacity monitor meeting the requirements of 40 CFR 63.6(h) and 63.8. See 1&2 in appendix B for data recovery requirements. Begin corrective action, as specified in the SSM plan (see condition A3.11), when an exceedence occurs (the average of any 10 consecutive 6-minute averages exceed 20%). A violation occurs when opacity exceeds 35% for ≥ 6% of the operating time during a quarter, not including applicable periods of startup, shutdown, or malfunction. Report time, date, average opacity, and corrective action for exceedences monthly; and report violations quarterly.	40 CFR 63.862(a)(i) for limit; 40 CFR 63.864(d) for monitoring; 40 CFR 63.864 (k)(1) for corrective action; 40 CFR 63.864 (k)(2) for violation definition; 40 CFR 63.864 (k)(3) for number of exceedences per period. 40 CFR 63.6(h) for SSM exclusion.
A3.10	VOCs	1020 TPY, 12-month total.	Sample triennially using RM 25A (see appendix ApA.2). Calculate per appendix ApA.3. Report test results in monthly report for month tested. Report 12-month total monthly.	PSD 01-03.

A3.11 SSM Plan [40 CFR 63.6(e)(3)(i) & 40 CFR 63.866(a)] - shall comply with the SSM plan requirements identified in section J of this AOP.

A3.12 The annual heat input from fossil fuels shall be less than 10 percent of the potential annual heat input from all fuels. Compliance shall be determined by procedures in 40 CFR Part 60.45b. Fuel oil with a sulfur content greater than 0.5 percent may not be burned except during emergency conditions, such as a malfunction in the natural gas supply line serving the area or the mill. During such conditions oil with a sulfur content greater than 0.5 percent shall only be burned during startups, shutdowns or to burn out a high bed. When oil is burned under non-emergency conditions then LFPP shall demonstrate low sulfur oil content firing by keeping a record of the times, volumes, and sulfur content and maintaining at LFPP fuel receipts from the fuel supplier which certify that the oil meets the fuel sulfur limit. Tall oil with sulfur content not to exceed 0.5 percent sulfur by weight may be substituted for fuel oil. (Order 3462-AQ07).

A3.13 The following **state-only** requirement is not federally enforceable under the federal Clean Air Act:

A3.13	TRS	17.5 ppmv @ 8% O <sub>2</sub> , 24-hr average.	Monitor continuously using PS 5 (see appendix ApA.2). Report excursions monthly.	WAC 173-405-040(1)(b).
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Footnotes:

A3F.1 During source tests for PM and PM<sub>10</sub> on all recovery furnaces, primary voltage, primary current, opacity, and spark rate for the electrostatic precipitator shall be recorded for each field once during each source test. In addition, secondary voltage and secondary current data shall also be collected once during each source test when available. All precipitator data shall be maintained in a file with corresponding test data. Precipitator data shall be submitted to Ecology when the PM and PM<sub>10</sub> source test results exceed the permit limit. The department may modify or waive this requirement. (PSD 01-03).

#### A4. RECOVERY FURNACE 22

The source shall comply with the requirements of 40 CFR Part 60 Subpart BB. The source shall also comply with the general requirements of 40 CFR Part 60 including:

- 40 CFR 60.7(b) & (f) concerning recordkeeping,
- 40 CFR 60.7(c), (d), & (e) concerning reporting,
- 40 CFR 60.11(d) concerning operation and maintenance,
- 40 CFR 60.12 concerning concealment,
- 40 CFR 60.13 concerning monitoring, and
- 40 CFR 60.19 concerning notification and reporting.

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
A4.1	PM&PM10	0.027 gr/dscf @ 8% O <sub>2</sub> , 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2 and footnote A4F.1). Report results in monthly report for month tested.	PSD 01-03.
	PM	0.044 gr/dscf @ 8% O <sub>2</sub> .	Same as for previous limit (see footnote A4F.2).	40 CFR 60.282(a)(1)(i).
	PM	0.10 gr/dscf @ 8% O <sub>2</sub> , 1-hr average.	Same as for previous limit.	WAC 173-405-040(1)(a).
	PM&PM10	256 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A4.2	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period.	Monitor continuously using PS 1 (see appendix ApA.2). See 1&3 in appendix B for data recovery requirements. Report daily maximum concentrations, daily average concentrations, and excursions monthly. Compliance may also be determined using RM 9.	Order 3462-AQ07.
		35% average for more than 6 consecutive minutes in any 60 minute period.	Same as for previous limit. If the total number of contiguous periods of excess emissions in a quarter is less than six percent of the total number of operating hours (excluding startup, shutdown, or malfunction) during the quarter, the excess emissions do not constitute a violation of this requirement (see footnote A4F.2).	40 CFR 60.282(a)(1)(ii) and WAC 173-405-040(6) for basis of limit. 40 CFR 60.284(a)(1) and 40 CFR 60.284(e)(1)(ii) for basis of monitoring.
A4.3	SO <sub>2</sub>	295 lb/hr, 3-hr average.	Monitor continuously using PS 2 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report 3-hr average concentrations, monthly average concentration, maximum monthly 3-hr average concentration, and excursions monthly.	PSD 01-03.
		500 ppm @ 8% O <sub>2</sub> , 1-hr average.	Same monitoring as for previous limit. Report excursions monthly.	WAC 173-405-040(11)(a).

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
A4.4		1291 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
	TRS (assume all TRS is H <sub>2</sub> S)	3.0 ppm <sub>dv</sub> @ 8% O <sub>2</sub> , 12-hr average.	Monitor continuously using PS 5 (see appendix ApA.2). See 1&3 in appendix B for data recovery requirements. Report daily maximum concentrations, 12-hr average concentrations, monthly average concentration, maximum monthly 12-hr concentration, and excursions monthly.	PSD 01-03.
		5 ppm @ 8% O <sub>2</sub> , 12-hr average.	Same as for previous limit. If the total number of contiguous periods of excess emissions in a quarter is less than one percent of the total number of operating hours (excluding startup, shutdown, or malfunction) during the quarter, the excess emissions do not constitute a violation of this requirement (see footnote A4F.2). Record 12-hr average concentration for two consecutive 12-hr periods each day.	40 CFR 60.283(a)(2) for basis of limit. 40 CFR 60.284(a)(2) and 40 CFR 60.284(e)(1)(i) for basis of monitoring. 40 CFR 60.284(c)(1).
		17 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A4.5	CO	300 ppm <sub>dv</sub> @ 8% O <sub>2</sub> , 8-hr average.	Monitor continuously using PS 4 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report 8-hr average concentrations, monthly average concentration, maximum monthly 8-hr average concentration, and excursions monthly.	PSD 01-03.
		1380 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A4.6	NO <sub>x</sub>	95 ppm <sub>dv</sub> @ 8% O <sub>2</sub> , 3- hr average.	Monitor continuously using PS 2 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report 3-hr average concentrations, monthly average concentration, maximum monthly 3-hr average concentration, and excursions monthly.	PSD 01-03.
		735 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
A4.7	O <sub>2</sub>	no limit – required for O <sub>2</sub> correction.	Monitor continuously using PS 3. See 1&3 in appendix B for data recovery requirements. Record 12-hr average concentration for two consecutive 12-hr periods each day.	40 CFR 60.284(a)(2) and Order 3462-AQ07. 40 CFR 60.284(c)(2) and Order 3462-AQ07.
A4.8	Operating Limit	1950 TBLS/D, monthly average.	Report average daily BLS production in tons monthly (see Appendix ApA.1).	PSD 01-03.

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
A4.9	HAPS	Particulate surrogate: 0.044 gr/dscf @ 8% O <sub>2</sub> .	Monitor opacity with a continuous opacity monitor meeting the requirements of 40 CFR 63.6(h) and 63.8. See 1&2 in appendix B for data recovery requirements. Begin corrective action, as specified in the SSM plan (see condition A4.10), when an exceedence occurs (the average of any 10 consecutive 6-minute averages exceed 20%). A violation occurs when opacity exceeds 35% for ≥ 6% of the operating time during a quarter, not including applicable periods of startup, shutdown, or malfunction. Report time, date, average opacity, and corrective action for exceedences monthly; and report violations quarterly.	40 CFR 63.862(a)(i) for limit; 40 CFR 63.864(d) for monitoring; 40 CFR 63.864 (k)(1) for corrective action; 40 CFR 63.864 (k)(2) for violation definition; 40 CFR 63.864 (k)(3) for number of exceedences per period. 40 CFR 63.6(h) for SSM exclusion.

A4.10	SSM Plan [40 CFR 63.6(e)(3)(i) & 40 CFR 63.866(a)] - shall comply with the SSM plan requirements identified in section J of this AOP.			
A4.11	The annual heat input from fossil fuels shall be less than 10 percent of the potential annual heat input from all fuels. Compliance shall be determined by procedures in 40 CFR Part 60.45b. Fuel oil with a sulfur content greater than 0.5 percent may not be burned except during emergency conditions, such as a malfunction in the natural gas supply line serving the area or the mill. During such conditions oil with a sulfur content greater than 0.5 percent shall only be burned during startups, shutdowns or to burn out a high bed. When oil is burned under non-emergency conditions then LFPP shall demonstrate low sulfur oil content firing by keeping a record of the times, volumes, and sulfur content and maintaining at LFPP fuel receipts from the fuel supplier which certify that the oil meets the fuel sulfur limit. Tall oil with sulfur content not to exceed 0.5 percent sulfur by weight may be substituted for fuel oil. (Order 3462-AQ07).			

A4.12 The following **state-only** requirement is not federally enforceable under the federal Clean Air Act:

A4.12	TRS	5.0 ppm @ 8% O <sub>2</sub> , 24-hr average.	Monitor continuously using PS 5 (see appendix ApA.2). Report excursions monthly.	WAC 173-405-040(1)(c).
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Footnotes:

A4F.1	During source tests for PM and PM <sub>10</sub> on all recovery furnaces, primary voltage, primary current, opacity, and spark rate for the electrostatic precipitator shall be recorded for each field once during each source test. In addition, secondary voltage and secondary current data shall also be collected once during each source test when available. All precipitator data shall be maintained in a file with corresponding test data. Precipitator data shall be submitted to Ecology when the PM and PM <sub>10</sub> source test results exceed the permit limit. The department may modify or waive this requirement. (PSD 01-03).			
A4F.2	Excess emissions reports meeting the requirements of 40 CFR 60.284(d) & (e) shall be submitted. The reports shall be submitted semi-annually, but may be submitted more frequently.			

## B1. SMELT DISSOLVING TANKS 15

Opacity limits apply to each stack individually. All other limits apply to the total emissions from the combined stacks.

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
B1.1	PM&PM10	0.12 lb/TBLS, 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2). Report results in monthly report for month tested.	PSD 01-03.
	PM	0.30 lb/TBLS, 1-hr average.	Same as for previous limit.	WAC 173-405-040(2).
	PM&PM10	26 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
B1.2	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period.	See footnote B1F.1.	Order 3462-AQ07.
		35% average for more than 6 consecutive minutes in any 60 minute period.	Same as for previous limit.	WAC 173-405-040(6).
B1.3	SO <sub>2</sub>	12 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 6C (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
		1000 ppm, 1-hr average.	Same as for previous limit.	WAC 173-405-040(11)(b).
B1.4	TRS (assume all TRS is H <sub>2</sub> S)	67 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 16 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
B1.5	CO	38 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 10 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
B1.6	NO <sub>x</sub>	7 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
B1.7	Operating Limit	1150 TBLS/D, monthly average.	Report average daily BLS production in tons monthly (see Appendix ApA.1).	PSD 01-03.

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
B1.8	HAPS	Particulate surrogate: 0.20 lb/TBLS (0.10 kg/Mg of black liquor solids fired).	Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Begin corrective action, as specified in the SSM plan (see condition B1.9), when an exceedence occurs (any 3-hr average out of compliance with emission control parameters). A violation occurs when 6 or more 3-hr averages are out of compliance with any emission control parameter requirements during a 6 month reporting period (not including applicable periods of startup, shutdown, or malfunction). For the purpose of determining the number of nonopacity exceedences, no more than one exceedence can occur per 24 hour period. Report exceedences monthly, and violations every 6 months.	40 CFR 63.862(a)(i) for limit; 40 CFR 63.864(e) for monitoring; 40 CFR 63.864 (k)(1) for corrective action; 40 CFR 63.864 (k)(2) for violation definition; 40 CFR 63.864 (k)(3) for number of exceedences per period. 40 CFR 63.6(f) for SSM exclusion.

B1.9 SSM Plan [40 CFR 63.6(e)(3)(i) & 40 CFR 63.866(a)] - shall comply with the SSM plan requirements identified in section J of this AOP.

Footnotes:

B1F.1 Emission control parameter monitoring is required when exhaust gasses are being emitted from the smelt dissolving tank vent during combustion in the associated recovery furnace or the associated recovery furnace ID fan is being operated as part of the cool down process for recovery furnace shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Continuously monitor the explosion dampers. Check explosion dampers and spout box doors at least once per shift to assure they are closed. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9. (Order 3462-AQ07).

## B2. SMELT DISSOLVING TANKS 18

Opacity limits apply to each stack individually. All other limits apply to the total emissions from the combined stacks.

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
B2.1	PM&PM10	0.12 lb/TBLS, 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2). Report results in monthly report for month tested.	PSD 01-03.
	PM	0.30 lb/TBLS, 1-hr average.	Same as for previous limit.	WAC 173-405-040(2).
	PM&PM10	26 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
B2.2	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period.	See footnote B2F.1.	Order 3462-AQ07.
		35% average for more than 6 consecutive minutes in any 60 minute period.	Same as for previous limit.	WAC 173-405-040(6).
B2.3	SO <sub>2</sub>	4 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 6C (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
		1000 ppm, 1-hr average.	Same as for previous limit.	WAC 173-405-040(11)(b).
B2.4	TRS (assume all TRS is H <sub>2</sub> S)	67 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 16 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
B2.5	CO	40 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 10 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
B2.6	NO <sub>x</sub>	7 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
B2.7	Operating Limit.	1200 TBLS/D, monthly average.	Report average daily BLS production in tons monthly (see Appendix ApA.1).	PSD 01-03.

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
B2.8	HAPS	Particulate surrogate: 0.20 lb/TBLS (0.10 kg/Mg of black liquor solids fired).	Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Begin corrective action, as specified in the SSM plan (see condition B2.9), when an exceedence occurs (any 3-hr average out of compliance with emission control parameters). A violation occurs when 6 or more 3-hr averages are out of compliance with any emission control parameter requirements during a 6 month reporting period (not including applicable periods of startup, shutdown, or malfunction). For the purpose of determining the number of nonopacity exceedences, no more than one exceedence can occur per 24 hour period. Report exceedences monthly, and violations every 6 months.	40 CFR 63.862(a)(i) for limit; 40 CFR 63.864(e) for monitoring; 40 CFR 63.864 (k)(1) for corrective action; 40 CFR 63.864 (k)(2) for violation definition; 40 CFR 63.864 (k)(3) for number of exceedences per period. 40 CFR 63.6(f) for SSM exclusion.

B2.9 SSM Plan [40 CFR 63.6(e)(3)(i) & 40 CFR 63.866(a)] - shall comply with the SSM plan requirements identified in section J of this AOP.

Footnotes:

B2F.1 Emission control parameter monitoring is required when exhaust gasses are being emitted from the smelt dissolving tank vent during combustion in the associated recovery furnace or the associated recovery furnace ID fan is being operated as part of the cool down process for recovery furnace shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Continuously monitor the explosion dampers. Check explosion dampers and spout box doors at least once per shift to assure they are closed. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9. (Order 3462-AQ07).

### B3. SMELT DISSOLVING TANKS 19

Opacity limits apply to each stack individually. All other limits apply to the total emissions from the combined stacks.

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
B3.1	PM&PM10	0.12 lb/TBLS, 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2). Report results in monthly report for month tested.	PSD 01-03.
	PM	0.30 lb/TBLS, 1-hr average.	Same as for previous limit.	WAC 173-405-040(2).
	PM&PM10	44 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
B3.2	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period.	See footnote B3F.1.	Order 3462-AQ07.
		35% average for more than 6 consecutive minutes in any 60 minute period.	Same as for previous limit.	WAC 173-405-040(6).
B3.3	SO <sub>2</sub>	16 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 6C (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
		1000 ppm, 1-hr average.	Same as for previous limit.	WAC 173-405-040(11)(b).
B3.4	TRS (assume all TRS is H <sub>2</sub> S)	114 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 16 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
B3.5	CO	66 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 10 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
B3.6	NO <sub>x</sub>	11 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
B3.7	Operating Limit.	2000 TBLS/D, monthly average.	Report average daily BLS production in tons monthly (see Appendix ApA.1).	PSD 01-03.

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
B3.8	HAPS	Particulate surrogate: 0.20 lb/TBLS (0.10 kg/Mg of black liquor solids fired).	Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Begin corrective action, as specified in the SSM plan (see condition B3.9), when an exceedence occurs (any 3-hr average out of compliance with emission control parameters). A violation occurs when 6 or more 3-hr averages are out of compliance with any emission control parameter requirements during a 6 month reporting period (not including applicable periods of startup, shutdown, or malfunction). For the purpose of determining the number of nonopacity exceedences, no more than one exceedence can occur per 24 hour period. Report exceedences monthly, and violations every 6 months.	40 CFR 63.862(a)(i) for limit; 40 CFR 63.864(e) for monitoring; 40 CFR 63.864 (k)(1) for corrective action; 40 CFR 63.864 (k)(2) for violation definition; 40 CFR 63.864 (k)(3) for number of exceedences per period. 40 CFR 63.6(f) for SSM exclusion.

B3.9 SSM Plan [40 CFR 63.6(e)(3)(i) & 40 CFR 63.866(a)] - shall comply with the SSM plan requirements identified in section J of this AOP.

Footnotes:

B3F.1 Emission control parameter monitoring is required when exhaust gasses are being emitted from the smelt dissolving tank vent during combustion in the associated recovery furnace or the associated recovery furnace ID fan is being operated as part of the cool down process for recovery furnace shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Continuously monitor the explosion dampers. Check explosion dampers and spout box doors at least once per shift to assure they are closed. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9. (Order 3462-AQ07).

#### B4. SMELT DISSOLVING TANK 22

The source shall comply with the requirements of 40 CFR Part 60 Subpart BB. The source shall also comply with the general requirements of 40 CFR Part 60 including:

- 40 CFR 60.7(b) & (f) concerning recordkeeping,
- 40 CFR 60.7(c), (d), & (e) concerning reporting,
- 40 CFR 60.11(d) concerning operation and maintenance,
- 40 CFR 60.12 concerning concealment,
- 40 CFR 60.13 concerning monitoring, and
- 40 CFR 60.19 concerning notification and reporting.

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
B4.1	PM&PM10	0.12 lb/TBLS, 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2). Report results in monthly report for month tested.	PSD 01-03.
	PM	0.2 lb/TBLS, 1-hr average.	Same as for previous limit. (see footnote B4F.2)	40 CFR 60.282(a)(2).
	PM	0.30 lb/TBLS, 1-hr average.	Same as for previous limit.	WAC 173-405-040(2).
	PM&PM10	44 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
B4.2	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period.	See footnote B4F.1.	Order 3462-AQ07.
		35% average for more than 6 consecutive minutes in any 60 minute period.	Same as for previous limit.	WAC 173-405-040(6).
B4.3	SO <sub>2</sub>	31 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 6C (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
		1000 ppm, 1-hr average.	Same as for previous limit.	WAC 173-405-040(11)(b).
B4.4	TRS (assume all TRS is H <sub>2</sub> S)	0.0168 lb/TBLS, 24-hr average.	Sample T/M using RM 16 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
		0.033 lb/TBLS as H <sub>2</sub> S.	Same as for previous limit. (see footnote B4F.2)	40 CFR 60.283(a)(4).

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
		6 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
B4.5	CO	65 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 10 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
B4.6	NO <sub>x</sub>	11 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly. Sample T/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
B4.7	Operating Limit	1950 TBLS/D, monthly average.	Report average daily BLS production in tons monthly (see Appendix ApA.1).	PSD 01-03.
B4.8	HAPS	Particulate surrogate: 0.20 lb/TBLS (0.10 kg/Mg of black liquor solids fired).	Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Begin corrective action, as specified in the SSM plan (see condition B4.9), when an exceedence occurs (any 3-hr average out of compliance with emission control parameters). A violation occurs when 6 or more 3-hr averages are out of compliance with any emission control parameter requirements during a 6 month reporting period (not including applicable periods of startup, shutdown, or malfunction). For the purpose of determining the number of nonopacity exceedences, no more than one exceedence can occur per 24 hour period. Report exceedences monthly, and violations every 6 months.	40 CFR 63.862(a)(i) for limit; 40 CFR 63.864(e) for monitoring; 40 CFR 63.864 (k)(1) for corrective action; 40 CFR 63.864 (k)(2) for violation definition; 40 CFR 63.864 (k)(3) for number of exceedences per period. 40 CFR 63.6(f) for SSM exclusion.
B4.9	SSM Plan [40 CFR 63.6(e)(3)(i) & 40 CFR 63.866(a)] - shall comply with the SSM plan requirements identified in section J of this AOP.			

Footnotes:

B4F.1	Emission control parameter monitoring is required when exhaust gasses are being emitted from the smelt dissolving tank vent during combustion in the associated recovery furnace or the associated recovery furnace ID fan is being operated as part of the cool down process for recovery furnace shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Continuously monitor the explosion damper. Check explosion damper and spout box door at least once per shift to assure they are closed. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9. (Order 3462-AQ07).
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B4F.2 Excess emissions reports meeting the requirements of 40 CFR 60.284(d) & (e) shall be submitted. The reports shall be submitted semi-annually, but may be submitted more frequently.

**C1. LIME KILN 1**

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C1.1	PM&PM10	0.030 gr/dscf @ 10% O <sub>2</sub> , 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2). Report results in monthly report for month tested.	PSD 01-03.
	PM	0.13 gr/dscf @ 10% O <sub>2</sub> , 1-hr average.	Same as previous limit.	WAC 173-405-040(3)(a).
	PM&PM10	20 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C1.2	Opacity	25% average for more than 6 consecutive minutes in any 60 minute period.	See footnote C1F.1.	Order 3462-AQ07.
		35% average for more than 6 consecutive minutes in any 60 minute period.	Same as previous limit.	WAC 173-405-040(6).
C1.3	SO <sub>2</sub>	20 ppmdv @ 10% O <sub>2</sub> , 3-hr average.	Sample M/Q using RM 6C. Report test results in monthly report for months when tested. See appendix C for CAM demonstration parameters.	PSD 01-03.
		500 ppm @ 10% O <sub>2</sub> , 1-hr average.	Same as for previous limit.	WAC 173-405-040(11)(a).
		16 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C1.4	TRS (assume all TRS is H <sub>2</sub> S)	20 ppmdv @ 10% O <sub>2</sub> , 24-hr average.	Monitor continuously using PS 5 (see appendix ApA.2 and footnote C1F.2). See 1&4 in appendix B for data recovery requirements. Report daily maximum concentrations, 24-hr average concentrations, monthly average concentration, maximum monthly 24-hr concentration, and excursions monthly.	PSD 01-03.
		temperature ≥1200° F and retention time ≥0.5 seconds when burning NCGs.	Monitor unit operation, flame safety interlocks, and interlock connections to NCG valves. Report NCG venting per condition G1.2.	40 CFR 60.283(a)(1)(iii).

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
		6 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C1.5	CO	77 lb/hr, 8-hr average.	Sample A/M using RM 10 (see appendix ApA.2). Calculate per appendix ApA.3 without dividing by CaO production. Report test results in monthly report for month tested.	PSD 01-03.
		339 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C1.6	NO <sub>x</sub>	340 ppmdv @ 10% O <sub>2</sub> , 24-hr average.	Sample A/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
		139 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C1.7	O <sub>2</sub>	no limit – required for O <sub>2</sub> correction.	Monitor continuously using PS 3. See 1&4 in appendix B for data recovery requirements.	Order 3462-AQ07.
C1.8	Operating Limit	140 TCaO/D, monthly average.	Report average daily CaO production in tons monthly (see Appendix ApA.1).	PSD 01-03.
C1.9	Stack dimensions		See footnote C1F.3.	PSD 01-03 and Order 3462-AQ07.
C1.10	HAPS	Particulate surrogate: 0.064 gr/dscf (0.15 g/dscm) @ 10% O <sub>2</sub> .	Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Begin corrective action, as specified in the SSM plan (see condition C1.11), when an exceedence occurs (any 3-hr average out of compliance with emission control parameters). A violation occurs when 6 or more 3-hr averages are out of compliance with any emission control parameter requirements during a 6 month reporting period (not including applicable periods of startup, shutdown, or malfunction). For the purpose of determining the number of nonopacity exceedences, no more than one exceedence can occur per 24 hour period. Report exceedences monthly, and violations every 6 months.	40 CFR 63.862(a)(i) for limit; 40 CFR 63.864(e) for monitoring; 40 CFR 63.864 (k)(1) for corrective action; 40 CFR 63.864 (k)(2) for violation definition; 40 CFR 63.864 (k)(3) for number of exceedences per period. 40 CFR 63.6(f) for SSM exclusion.
C1.11	SSM Plan [40 CFR 63.6(e)(3)(i) & 40 CFR 63.866(a)] - shall comply with the SSM plan requirements identified in section J of this AOP.			

C1.12 The following **state-only** requirements are not federally enforceable under the federal Clean Air Act:

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C1.12	TRS	20 ppm @ 10% O <sub>2</sub> , 24-hr average.	Limit met by meeting Condition C1.4.	WAC 173-405-040(3)(c).
		80 ppm H <sub>2</sub> S @ 10% O <sub>2</sub> for more than 2 consecutive hours.	Monitor per condition C1.4. Report excursions monthly. All TRS monitored is considered H <sub>2</sub> S for this limit.	WAC 173-405-040(3)(b).

Footnotes:

C1F.1	Emission control parameter monitoring is required when exhaust gasses are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9. (Order 3462-AQ07).			
C1F.2	The continuous TRS monitoring requirement does not apply during time periods when the TRS monitoring equipment is being used to conduct a required SO <sub>2</sub> source test. (PSD 01-03).			
C1F.3	The modified or replaced exhaust stacks shall be designed in such a way that modeled exhaust gas dispersion is equal to or better than that indicated for the originally-proposed design in the modeling reported in the application for this PSD permit. Plans for the stack design must be approved in writing by Ecology prior to initiation of construction of the stack. Construction of the modified or replacement stacks shall be consistent with design (approved construction completed). (PSD 01-03). Certify stack dimensions meet discharge characteristics presented in PSD application (certification completed). Report any changes to stack diameter or height after stack dimensions are certified. (Order 3462-AQ07).			

## C2. LIME KILN 2

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C2.1	PM&PM10	0.030 gr/dscf @ 10% O <sub>2</sub> , 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2). Report results in monthly report for month tested.	PSD 01-03.
	PM	0.13 gr/dscf @ 10% O <sub>2</sub> , 1-hr average.	Same as previous limit.	WAC 173-405-040(3)(a).

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
	PM&PM10	20 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C2.2	Opacity	25% average for more than 6 consecutive minutes in any 60 minute period.	See footnote C2F.1.	Order 3462-AQ07.
		35% average for more than 6 consecutive minutes in any 60 minute period.	Same as previous limit.	WAC 173-405-040(6).
C2.3	SO <sub>2</sub>	20 ppmdv @ 10% O <sub>2</sub> , 3-hr average.	Sample M/Q using RM 6C. Report test results in monthly report for months when tested. See appendix C for CAM demonstration parameters.	PSD 01-03.
		500 ppm @ 10% O <sub>2</sub> , 1-hr average.	Same as for previous limit.	WAC 173-405-040(11)(a).
		16 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C2.4	TRS (assume all TRS is H <sub>2</sub> S)	20 ppmdv @ 10% O <sub>2</sub> , 24-hr average.	Monitor continuously using PS 5 (see appendix ApA.2 and footnote C2F.2). See 1&4 in appendix B for data recovery requirements. Report daily maximum concentrations, 24-hr average concentrations, monthly average concentration, maximum monthly 24-hr concentration, and excursions monthly.	PSD 01-03.
		temperature ≥1200° F and retention time ≥0.5 seconds when burning NCGs.	Monitor unit operation, flame safety interlocks, and interlock connections to NCG valves. Report NCG venting per condition G1.2.	40 CFR 60.283(a)(1)(iii).
		6 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C2.5	CO	77 lb/hr, 8-hr average.	Sample A/M using RM 10 (see appendix ApA.2). Calculate per appendix ApA.3 without dividing by CaO production. Report test results in monthly report for month tested.	PSD 01-03.
		339 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C2.6	NO <sub>x</sub>	340 ppmdv @ 10% O <sub>2</sub> , 24-hr average.	Sample A/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
		139 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C2.7	O <sub>2</sub>	no limit – required for O <sub>2</sub> correction.	Monitor continuously using PS 3. See 1&4 in appendix B for data recovery requirements.	Order 3462-AQ07.
C2.8	Operating Limit	140 TCaO/D, monthly average.	Report average daily CaO production in tons monthly (see Appendix ApA.1).	PSD 01-03.
C2.9	Stack dimensions		See footnote C2F.3.	PSD 01-03 and Order 3462-AQ07.
C2.10	HAPS	Particulate surrogate: 0.064 gr/dscf (0.15 g/dscm) @ 10% O <sub>2</sub> .	Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Begin corrective action, as specified in the SSM plan (see condition C2.11), when an exceedence occurs (any 3-hr average out of compliance with emission control parameters). A violation occurs when 6 or more 3-hr averages are out of compliance with any emission control parameter requirements during a 6 month reporting period (not including applicable periods of startup, shutdown, or malfunction). For the purpose of determining the number of nonopacity exceedences, no more than one exceedence can occur per 24 hour period. Report exceedences monthly, and violations every 6 months.	40 CFR 63.862(a)(i) for limit; 40 CFR 63.864(e) for monitoring; 40 CFR 63.864 (k)(1) for corrective action; 40 CFR 63.864 (k)(2) for violation definition; 40 CFR 63.864 (k)(3) for number of exceedences per period. 40 CFR 63.6(f) for SSM exclusion.

C2.11 SSM Plan [40 CFR 63.6(e)(3)(i) & 40 CFR 63.866(a)] - shall comply with the SSM plan requirements identified in section J of this AOP.

C2.12 The following **state-only** requirements are not federally enforceable under the federal Clean Air Act:

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C2.12	TRS	20 ppm @ 10% O <sub>2</sub> , 24-hr average.	Limit met by meeting Condition C2.4.	WAC 173-405-040(3)(c).
		80 ppm H <sub>2</sub> S @ 10% O <sub>2</sub> for more than 2 consecutive hours.	Monitor per condition C2.4. Report excursions monthly. All TRS monitored is considered H <sub>2</sub> S for this limit.	WAC 173-405-040(3)(b).

Footnotes:

C2F.1	Emission control parameter monitoring is required when exhaust gasses are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9. (Order 3462-AQ07).
C2F.2	The continuous TRS monitoring requirement does not apply during time periods when the TRS monitoring equipment is being used to conduct a required SO <sub>2</sub> source test. (PSD 01-03).
C2F.3	The modified or replaced exhaust stacks shall be designed in such a way that modeled exhaust gas dispersion is equal to or better than that indicated for the originally-proposed design in the modeling reported in the application for this PSD permit. Plans for the stack design must be approved in writing by Ecology prior to initiation of construction of the stack. Construction of the modified or replacement stacks shall be consistent with design (approved construction completed). (PSD 01-03). Certify stack dimensions meet discharge characteristics presented in PSD application (certification completed). Report any changes to stack diameter or height after stack dimensions are certified. (Order 3462-AQ07).

**C3. LIME KILN 3**

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C3.1	PM&PM10	0.030 gr/dscf @ 10% O <sub>2</sub> , 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2). Report results in monthly report for month tested.	PSD 01-03.
	PM	0.13 gr/dscf @ 10% O <sub>2</sub> , 1-hr average.	Same as previous limit.	WAC 173-405-040(3)(a).
	PM&PM10	34 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C3.2	Opacity	25% average for more than 6 consecutive minutes in any 60 minute period.	See footnote C3F.1.	Order 3462-AQ07.
		35% average for more than 6 consecutive minutes in any 60 minute period.	Same as previous limit.	WAC 173-405-040(6).

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C3.3	SO <sub>2</sub>	20 ppmdv @ 10% O <sub>2</sub> , 3-hr average.	Sample M/Q using RM 6C. Report test results in monthly report for months when tested. See appendix C for CAM demonstration parameters.	PSD 01-03.
		500 ppm @ 10% O <sub>2</sub> , 1- hr average.	Same as for previous limit.	WAC 173-405-040(11)(a).
		27 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C3.4	TRS (assume all TRS is H <sub>2</sub> S)	20 ppmdv @ 10% O <sub>2</sub> , 24-hr average.	Monitor continuously using PS 5 (see appendix ApA.2 and footnote C3F.2). See 1&4 in appendix B for data recovery requirements. Report daily maximum concentrations, 24-hr average concentrations, monthly average concentration, maximum monthly 24-hr concentration, and excursions monthly.	PSD 01-03.
		temperature ≥1200° F and retention time ≥0.5 seconds when burning NCGs.	Monitor unit operation, flame safety interlocks, and interlock connections to NCG valves. Report NCG venting per condition G1.2.	40 CFR 60.283(a)(1)(iii).
		10 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C3.5	CO	133 lb/hr, 8-hr average.	Sample A/M using RM 10 (see appendix ApA.2). Calculate per appendix ApA.3 without dividing by CaO production. Report test results in monthly report for month tested.	PSD 01-03.
		581 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C3.6	NO <sub>x</sub>	340 ppmdv @ 10% O <sub>2</sub> , 24-hr average.	Sample A/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
		238 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C3.7	O <sub>2</sub>	no limit – required for O <sub>2</sub> correction.	Monitor continuously using PS 3. See 1&4 in appendix B for data recovery requirements.	Order 3462-AQ07.
C3.8	Operating Limit	240 TCaO/D, monthly average.	Report average daily CaO production in tons monthly (see Appendix ApA.1).	PSD 01-03.
C3.9	Stack dimensions		See footnote C3F.3.	PSD 01-03 and Order 3462-AQ07.

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C3.10	HAPS	Particulate surrogate: 0.064 gr/dscf (0.15 g/dscm) @ 10% O <sub>2</sub> .	Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Begin corrective action, as specified in the SSM plan (see condition C3.11), when an exceedence occurs (any 3-hr average out of compliance with emission control parameters). A violation occurs when 6 or more 3-hr averages are out of compliance with any emission control parameter requirements during a 6 month reporting period (not including applicable periods of startup, shutdown, or malfunction). For the purpose of determining the number of nonopacity exceedences, no more than one exceedence can occur per 24 hour period. Report exceedences monthly, and violations every 6 months.	40 CFR 63.862(a)(i) for limit; 40 CFR 63.864(e) for monitoring; 40 CFR 63.864 (k)(1) for corrective action; 40 CFR 63.864 (k)(2) for violation definition; 40 CFR 63.864 (k)(3) for number of exceedences per period. 40 CFR 63.6(f) for SSM exclusion.

C3.11 SSM Plan [40 CFR 63.6(e)(3)(i) & 40 CFR 63.866(a)] - shall comply with the SSM plan requirements identified in section J of this AOP.

C3.12 The following **state-only** requirements are not federally enforceable under the federal Clean Air Act:

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C3.12	TRS	20 ppm @ 10% O <sub>2</sub> , 24-hr average.	Limit met by meeting Condition C3.4.	WAC 173-405-040(3)(c).
		80 ppm H <sub>2</sub> S @ 10% O <sub>2</sub> for more than 2 consecutive hours	Monitor per condition C3.4. Report excursions monthly. All TRS monitored is considered H <sub>2</sub> S for this limit.	WAC 173-405-040(3)(b).

Footnotes:

C3F.1 Emission control parameter monitoring is required when exhaust gasses are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9. (Order 3462-AQ07).

C3F.2	The continuous TRS monitoring requirement does not apply during time periods when the TRS monitoring equipment is being used to conduct a required SO <sub>2</sub> source test. (PSD 01-03).
C3F.3	The modified or replaced exhaust stacks shall be designed in such a way that modeled exhaust gas dispersion is equal to or better than that indicated for the originally-proposed design in the modeling reported in the application for this PSD permit. Plans for the stack design must be approved in writing by Ecology prior to initiation of construction of the stack. Construction of the modified or replacement stacks shall be consistent with design (approved construction completed). (PSD 01-03). Certify stack dimensions meet discharge characteristics presented in PSD application (certification completed). Report any changes to stack diameter or height after stack dimensions are certified. (Order 3462-AQ07).

#### C4. LIME KILN 4

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
C4.1	PM&PM10	0.030 gr/dscf @ 10% O <sub>2</sub> , 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2). Report results in monthly report for month tested.	PSD 01-03.
	PM	0.13 gr/dscf @ 10% O <sub>2</sub> , 1-hr average.	Same as previous limit.	WAC 173-405-040(3)(a).
	PM&PM10	35.6 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C4.2	Opacity	25% average for more than 6 consecutive minutes in any 60 minute period.	See footnote C4F.1.	Order 3462-AQ07.
		35% average for more than 6 consecutive minutes in any 60 minute period.	Same as previous limit.	WAC 173-405-040(6).
C4.3	SO <sub>2</sub>	20 ppmdv @ 10% O <sub>2</sub> , 3-hr average.	Sample M/Q using RM 6C. Report test results in monthly report for months when tested. See appendix C for CAM demonstration parameters.	PSD 01-03.
		500 ppm @ 10% O <sub>2</sub> , 1-hr average.	Same as for previous limit.	WAC 173-405-040(11)(a).
		28 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C4.4	TRS (assume all TRS is H <sub>2</sub> S)	20 ppmdv @ 10% O <sub>2</sub> , 24-hr average.	Monitor continuously using PS 5 (see appendix ApA.2 and footnote C4F.2). See 1&4 in appendix B for data recovery requirements. Report daily maximum concentrations, 24-hr average concentrations, monthly average concentration, maximum monthly 24-hr concentration, and excursions monthly.	PSD 01-03.

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C4.5	CO	temperature $\geq 1200^{\circ}$ F and retention time $\geq 0.5$ seconds when burning NCGs.	Monitor unit operation, flame safety interlocks, and interlock connections to NCG valves. Report NCG venting per condition G1.2.	40 CFR 60.283(a)(1)(iii).
		11 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C4.6	NO <sub>x</sub>	138 lb/hr, 8-hr average.	Sample A/M using RM 10 (see appendix ApA.2). Calculate per appendix ApA.3 without dividing by CaO production. Report test results in monthly report for month tested.	PSD 01-03.
		605 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C4.7	O <sub>2</sub>	340 ppm <sub>dv</sub> @ 10% O <sub>2</sub> , 24-hr average.	Sample A/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
		248 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C4.8	Operating Limit	no limit – required for O <sub>2</sub> correction.	Monitor continuously using PS 3. See 1&4 in appendix B for data recovery requirements.	Order 3462-AQ07.
C4.9	Stack dimensions	250 TCaO/D, monthly average.	Report average daily CaO production in tons monthly (see Appendix ApA.1).	PSD 01-03.
C4.10	HAPS	See footnote C4F.3.	See footnote C4F.3.	PSD 01-03 and Order 3462-AQ07.
C4.11	SSM Plan [40 CFR 63.6(e)(3)(i) & 40 CFR 63.866(a)] - shall comply with the SSM plan requirements identified in section J of this AOP.	Particulate surrogate: 0.064 gr/dscf (0.15 g/dscm) @ 10% O <sub>2</sub> .	Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Begin corrective action, as specified in the SSM plan (see condition C4.11), when an exceedence occurs (any 3-hr average out of compliance with emission control parameters). A violation occurs when 6 or more 3-hr averages are out of compliance with any emission control parameter requirements during a 6 month reporting period (not including applicable periods of startup, shutdown, or malfunction). For the purpose of determining the number of nonopacity exceedences, no more than one exceedence can occur per 24 hour period. Report exceedences monthly, and violations every 6 months.	40 CFR 63.862(a)(i) for limit; 40 CFR 63.864(e) for monitoring; 40 CFR 63.864 (k)(1) for corrective action; 40 CFR 63.864 (k)(2) for violation definition; 40 CFR 63.864 (k)(3) for number of exceedences per period. 40 CFR 63.6(f) for SSM exclusion.

C4.12 The following **state-only** requirements are not federally enforceable under the federal Clean Air Act:

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C4.12	TRS	20 ppm @ 10% O <sub>2</sub> , 24-hr average.	Limit met by meeting Condition C4.4.	WAC 173-405-040(3)(c).
		80 ppm H <sub>2</sub> S @ 10% O <sub>2</sub> for more than 2 consecutive hours	Monitor per condition C4.4. Report excursions monthly. All TRS monitored is considered H <sub>2</sub> S for this limit.	WAC 173-405-040(3)(b).

Footnotes:

C4F.1	Emission control parameter monitoring is required when exhaust gasses are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9. (Order 3462-AQ07).			
C4F.2	The continuous TRS monitoring requirement does not apply during time periods when the TRS monitoring equipment is being used to conduct a required SO <sub>2</sub> source test. (PSD 01-03).			
C4F.3	The modified or replaced exhaust stacks shall be designed in such a way that modeled exhaust gas dispersion is equal to or better than that indicated for the originally-proposed design in the modeling reported in the application for this PSD permit. Plans for the stack design must be approved in writing by Ecology prior to initiation of construction of the stack. Construction of the modified or replacement stacks shall be consistent with design (approved construction completed). (PSD 01-03). Certify stack dimensions meet discharge characteristics presented in PSD application (certification completed). Report any changes to stack diameter or height after stack dimensions are certified. (Order 3462-AQ07).			

**C5. LIME KILN 5**

The source shall comply with the requirements of 40 CFR Part 60 Subpart BB. The source shall also comply with the general requirements of 40 CFR Part 60 including:

- 40 CFR 60.7(b) & (f) concerning recordkeeping,
- 40 CFR 60.7(c), (d), & (e) concerning reporting,
- 40 CFR 60.11(d) concerning operation and maintenance,
- 40 CFR 60.12 concerning concealment,
- 40 CFR 60.13 concerning monitoring, and
- 40 CFR 60.19 concerning notification and reporting.

Opacity limits apply to each stack individually. All other limits apply to the total emissions from the combined stacks.

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C5.1	PM&PM10 When firing natural gas:	0.035 gr/dscf @ 10% O <sub>2</sub> , 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2). Report results in monthly report for month tested.	PSD 01-03.
	PM&PM10 when firing oil:	0.060 gr/dscf @ 10% O <sub>2</sub> , 1-hr average.	Same as previous limit.	PSD 01-03.
	PM when firing natural gas:	0.067 gr/dscf @ 10% O <sub>2</sub> , 1-hr average.	Same as previous limit (see footnote C5F.2).	40 CFR 60.282(a)(3).
	PM when firing oil:	0.13 gr/dscf @ 10% O <sub>2</sub> , 1-hr average.	Same as previous limit (see footnote C5F.2).	40 CFR 60.282(a)(3).
	PM	0.13 gr/dscf @ 10% O <sub>2</sub> , 1-hr average.	Same as previous limit.	WAC 173-405-040(3)(a).
	PM & PM10	69 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C5.2	Opacity	25% average for more than 6 consecutive minutes in any 60 minute period.	Monitor continuously using PS 1 (see appendix ApA.2). Report daily maximum concentrations, daily average concentrations, and excursions monthly. Compliance may also be determined using RM 9.	Order 3462-AQ07.
		35% average for more than 6 consecutive minutes in any 60 minute period.	Same as previous limit.	WAC 173-405-040(6).

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C5.3	SO <sub>2</sub>	20 ppmdv @ 10% O <sub>2</sub> , 3-hr average.	Sample M/Q using RM 6C. Report results on monthly report for month tested.	PSD 01-03.
		500 ppm @ 10% O <sub>2</sub> , 1- hr average.	Same as for previous limit.	WAC 173-405-040(11)(a).
		28 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C5.4	TRS (assume all TRS is H <sub>2</sub> S)	8 ppmdv @ 10% O <sub>2</sub> , 12-hr average.	Monitor continuously using PS 5 (see appendix ApA.2 and footnote C5F.1). See 1&3 in appendix B for data recovery requirements. Report daily maximum concentrations, 12-hr average concentrations, monthly average concentration, maximum monthly 12-hr concentration, and excursions monthly. (see footnote C5F.2).	40 CFR 60.283(a)(5) and PSD 01-03 for basis of limit. 40 CFR 60.284(a)(2) and PSD 01-03 for basis of monitoring.
			Record 12-hr average concentration for two consecutive 12-hr periods each day.	40 CFR 60.284(c)(1).
		6 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C5.5	CO	64 lb/hr, 8-hr average.	Monitor continuously using PS 4 (see appendix ApA.2). Calculate per appendix ApA.3 without dividing by CaO production. Report 8-hr average concentrations, maximum monthly 8-hr average concentration, and excursions monthly.	PSD 01-03.
		282 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C5.6	NO <sub>x</sub>	275 ppmdv @ 10% O <sub>2</sub> , 24-hr average.	Sample A/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
		262 TPY, 12-month total.	Calculate per appendix ApA.3. Report monthly.	PSD 01-03.
C5.7	O <sub>2</sub>	no limit – required for O <sub>2</sub> correction.	Monitor continuously using PS 3. See 1&3 in appendix B for data recovery requirements.	40 CFR 60.284(a)(2) and Order 3462-AQ07.
			Record 12-hr average concentration for two consecutive 12-hr periods each day.	40 CFR 60.284(c)(2) and Order 3462-AQ07.
C5.8	Operating Limit	325 TCaO/D, monthly average.	Report average daily CaO production in tons monthly (see Appendix ApA.1).	PSD 01-03.

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C5.9	HAPS	Particulate surrogate: 0.064 gr/dscf (0.15 g/dscm) @ 10% O <sub>2</sub> .	Monitor opacity with a continuous opacity monitor meeting the requirements of 40 CFR 63.6(h) and 63.8. See 1&2 in appendix B for data recovery requirements. Begin corrective action, as specified in the SSM plan (see condition C5.10), when an exceedence occurs (the average of any 10 consecutive 6-minute averages exceed 20%). A violation occurs when opacity exceeds 20% for ≥ 6% of the operating time during a quarter, not including applicable periods of startup, shutdown, or malfunction. Report time, date, average opacity, and corrective action for exceedences monthly; and report violations quarterly.	40 CFR 63.862(a)(ii) for limit; 40 CFR 63.864(e) for monitoring; 40 CFR 63.864 (k)(1) for corrective action; 40 CFR 63.864 (k)(2) for violation definition; 40 CFR 63.864 (k)(3) for number of exceedences per period. 40 CFR 63.6(f) for SSM exclusion.

C5.10 SSM Plan [40 CFR 63.6(e)(3)(i) & 40 CFR 63.866(a)] - shall comply with the SSM plan requirements identified in section J of this AOP.

C5.11 The following **state-only** requirements are not federally enforceable under the federal Clean Air Act:

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
C5.11	TRS	20 ppm @ 10% O <sub>2</sub> , 24-hr average.	Limit met by meeting Condition C5.4.	WAC 173-405-040(3)(c).
		80 ppm H <sub>2</sub> S @ 10% O <sub>2</sub> for more than 2 consecutive hours	Monitor per condition C5.4. Report excursions monthly. All TRS monitored is considered H <sub>2</sub> S for this limit.	WAC 173-405-040(3)(b).

Footnotes:

C5F.1	The continuous TRS monitoring requirement does not apply during time periods when the TRS monitoring equipment is being used to conduct a required SO <sub>2</sub> source test. (PSD 01-03).
C5F.2	Excess emissions reports meeting the requirements of 40 CFR 60.284(d) & (e) shall be submitted. The reports shall be submitted semi-annually, but may be submitted more frequently.

**D1. POWER BOILER 12**

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
D1.1	PM&PM10	0.030 gr/dscf @ 7% O <sub>2</sub> , 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2). Report results in monthly report for month tested. See Footnote D1F.1 for CAM requirements.	Order 3466-AQ07.
	PM&PM10	0.048 gr/dscf @ 7% O <sub>2</sub> , 1-hr average.	Same as previous limit.	PSD 01-03.
	PM	0.2 gr/dscf @ 7% O <sub>2</sub> , 1-hr average.	Same as for previous limit.	WAC 173-405-040(5)(a).
	PM&PM10	116 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.	Order 3466-AQ07.
	PM&PM10	186 TPY, 12-month total.	Same as for previous limit.	PSD 01-03.
D1.2	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period (see footnote D1F.2).	See footnote D1F.3.	Order 3462-AQ07.
		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.	Same as for previous limit.	WAC 173-405-040(6) for basis of limit. WAC 173-400-105(5)(d) for basis of monitoring.
D1.3	TRS	temperature ≥1200° F and retention time ≥0.5 seconds when burning NCGs.	Monitor unit operation, flame safety interlocks, and interlock connections to NCG valves. Report NCG venting per condition G1.2.	40 CFR 60.283(a)(1)(iii).
D1.4	SO <sub>2</sub>	100 ppmdv @ 7% O <sub>2</sub> , 3-hr average.	Monitor continuously using PS 2 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report 3-hr average concentrations, monthly average concentration, maximum monthly 3-hr average concentration, and excursions monthly.	PSD 01-03.
		1000 ppm @ 7% O <sub>2</sub> , 1-hr average.	Same as for previous limit. Report excursions monthly.	WAC 173-405-040(11)(b).

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
D1.5	CO	467 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.	PSD 01-03.
		888 lb/hr, 8-hr average.	Sample A/M using RM 10 (see appendix ApA.2). Calculate per appendix ApA.4 without dividing by fuel applied. Report test results in monthly report for month tested.	PSD 01-03.
D1.6	NO <sub>x</sub>	1945 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.	PSD 01-03.
		410 ppm <sub>dv</sub> @ 7% O <sub>2</sub> , 24-hr average.	Sample A/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.
D1.7	O <sub>2</sub>	1420 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.	PSD 01-03.
D1.8	Operating Limit	no limit – required for O <sub>2</sub> correction.	Monitor continuously using PS 3. See 1&4 in appendix B for data recovery requirements.	Order 3462-AQ07.
D1.9	Stack dimensions	444 mmBtu/hr fuel application rate.	Report average hourly fuel application rate in mmBtu/hr (see Appendix ApA.1).	PSD 01-03.
D1.10			See footnote D1F.4.	PSD 01-03 and Order 3462-AQ07.
D1.10	Unit must employ RACT. Per WAC 173-401-605(3), RACT is defined as emission standards and other requirements in effect at the time of air operating permit issuance. Unit must be operated and maintained to minimize emissions. (WAC 173-400-070(2)(b)).			
D1.11	<p>Medical/infectious waste generated by operation of the on site medical center and from clean up of mill accidents may be co-combusted in Power Boiler Nos. 12, 13, and/or 20. LFPP shall not combust medical/infectious waste other than that generated by operation of the on site medical center and from clean up of mill accidents. During each calendar quarter, the weight of medical/infectious waste combusted shall not exceed 0.01% of the total weight of hog fuel, fuel oil, and natural gas combusted in the power boilers (sum of fuel burned in Nos. 12, 13, and 20). Also, for each calendar year, the total weight of medical/infectious waste burned in the power boilers (sum of medical/infectious waste burned in Nos. 12, 13, and 20), shall not exceed 5,000 pounds.</p> <p>LFPP shall report in the monthly report within 15 days of the end of each calendar quarter:</p> <ol style="list-style-type: none"> <li>the weight of medical/infectious waste combusted during the calendar quarter,</li> <li>the total weight of hog fuel, fuel oil, and natural gas combusted in the power boilers (sum of fuel burned in Nos. 12, 13, and 20) during the calendar quarter,</li> <li>the ratio of a:b as a percentage for the calendar quarter, and</li> <li>the weight of medical/infectious waste combusted during the calendar year to date. (Order 99AQ-I052).</li> </ol>			

Footnotes:

D1F.1	Emission control parameter monitoring is required when exhaust gasses are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Begin corrective action when an exceedence occurs (any 3-hr average out of compliance with emission control parameters). A violation occurs when 6 or more 3-hr averages are out of compliance with any emission control parameter requirements during a 6 month reporting period (not including applicable periods of startup, shutdown, or malfunction). For the purpose of determining the number of nonopacity exceedences, no more than one exceedence can occur per 24 hour period. Report exceedences monthly, and violations every 6 months. (CAM Plan and AOP Gap Filling).
D1F.2	The exception for emissions due to soot blowing or grate cleaning for up to 15 minutes in 8 consecutive hours applies to this limit (WAC 173-405-040(6)).
D1F.3	Emission control parameter monitoring is required when exhaust gasses are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9. (Order 3462-AQ07).
D1F.4	The modified or replaced exhaust stacks shall be designed in such a way that modeled exhaust gas dispersion is equal to or better than that indicated for the originally-proposed design in the modeling reported in the application for this PSD permit. Plans for the stack design must be approved in writing by Ecology prior to initiation of construction of the stack. Construction of the modified or replacement stacks shall be consistent with design (approved construction completed). (PSD 01-03). Certify stack dimensions meet discharge characteristics presented in PSD application (certification completed). Report any changes to stack diameter or height after stack dimensions are certified. (Order 3462-AQ07).

**D2. POWER BOILER 13**

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
D2.1	PM&PM10	0.030 gr/dscf @ 7% O <sub>2</sub> , 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2). Report results in monthly report for month tested. See Footnote D2F.1 for CAM requirements.	Order 3466-AQ07.
	PM&PM10	0.048 gr/dscf @ 7% O <sub>2</sub> , 1-hr average.	Same as previous limit.	PSD 01-03.
	PM	0.2 gr/dscf @ 7% O <sub>2</sub> , 1-hr average.	Same as for previous limit.	WAC 173-405-040(5)(a).
	PM&PM10	116 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.	Order 3466-AQ07.
	PM&PM10	186 TPY, 12-month total.	Same as for previous limit.	PSD 01-03.
D2.2	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period (see footnote D1F.2).	See footnote D2F.3.	Order 3462-AQ07.
		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.	Same as for previous limit.	WAC 173-405-040(6) for basis of limit. WAC 173-400-105(5)(d) for basis of monitoring.
D2.3	TRS	temperature ≥1200° F and retention time ≥0.5 seconds when burning NCGs.	Monitor unit operation, flame safety interlocks, and interlock connections to NCG valves. Report NCG venting per condition G1.2.	40 CFR 60.283(a)(1)(iii).
D2.4	SO <sub>2</sub>	100 ppm <sub>v</sub> @ 7% O <sub>2</sub> , 3-hr average.	Monitor continuously using PS 2 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report 3-hr average concentrations, monthly average concentration, maximum monthly 3-hr average concentration, and excursions monthly.	PSD 01-03.

Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
D2.5	1000 ppm @ 7% O <sub>2</sub> , 1-hr average.	Same as for previous limit. Report excursions monthly.	WAC 173-405-040(11)(b).
	467 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.	PSD 01-03.
D2.5	CO	888 lb/hr, 8-hr average.	Sample A/M using RM 10 (see appendix ApA.2). Calculate per appendix ApA.4 without dividing by fuel applied. Report test results in monthly report for month tested.
		1945 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.
D2.6	NO <sub>x</sub>	410 ppm <sub>dv</sub> @ 7% O <sub>2</sub> , 24-hr average.	Sample A/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.
		1420 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.
D2.7	O <sub>2</sub>	no limit – required for O <sub>2</sub> correction.	Monitor continuously using PS 3. See 1&4 in appendix B for data recovery requirements.
D2.8	Operating Limit	444 mmBtu/hr fuel application rate.	Report average hourly fuel application rate in mmBtu/hr (see Appendix ApA.1).
D2.9	Stack dimensions		See footnote D2F.4.

D2.10	Unit must employ RACT. Per WAC 173-401-605(3), RACT is defined as emission standards and other requirements in effect at the time of air operating permit issuance. Unit must be operated and maintained to minimize emissions. (WAC 173-400-070(2)(b)).
D2.11	Medical/infectious waste generated by operation of the on site medical center and from clean up of mill accidents may be co-combusted in Power Boiler Nos. 12, 13, and/or 20. LFPP shall not combust medical/infectious waste other than that generated by operation of the on site medical center and from clean up of mill accidents. During each calendar quarter, the weight of medical/infectious waste combusted shall not exceed 0.01% of the total weight of hog fuel, fuel oil, and natural gas combusted in the power boilers (sum of fuel burned in Nos. 12, 13, and 20). Also, for each calendar year, the total weight of medical/infectious waste burned in the power boilers (sum of medical/infectious waste burned in Nos. 12, 13, and 20), shall not exceed 5,000 pounds. LFPP shall report in the monthly report within 15 days of the end of each calendar quarter: <ul style="list-style-type: none"> <li>a. the weight of medical/infectious waste combusted during the calendar quarter,</li> <li>b. the total weight of hog fuel, fuel oil, and natural gas combusted in the power boilers (sum of fuel burned in Nos. 12, 13, and 20) during the calendar quarter,</li> <li>c. the ratio of a:b as a percentage for the calendar quarter, and</li> <li>d. the weight of medical/infectious waste combusted during the calendar year to date. (Order 99AQ-I052).</li> </ul>

Footnotes:

D2F.1	Emission control parameter monitoring is required when exhaust gasses are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Begin corrective action when an exceedence occurs (any 3-hr average out of compliance with emission control parameters). A violation occurs when 6 or more 3-hr averages are out of compliance with any emission control parameter requirements during a 6 month reporting period (not including applicable periods of startup, shutdown, or malfunction). For the purpose of determining the number of noncapacity exceedences, no more than one exceedence can occur per 24 hour period. Report exceedences monthly, and violations every 6 months. (CAM Plan and AOP Gap Filling).
D2F.2	The exception for emissions due to soot blowing or grate cleaning for up to 15 minutes in 8 consecutive hours applies to this limit (WAC 173-405-040(6)).
D2F.3	Emission control parameter monitoring is required when exhaust gasses are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9. (Order 3462-AQ07).
D2F.4	The modified or replaced exhaust stacks shall be designed in such a way that modeled exhaust gas dispersion is equal to or better than that indicated for the originally-proposed design in the modeling reported in the application for this PSD permit. Plans for the stack design must be approved in writing by Ecology prior to initiation of construction of the stack. Construction of the modified or replacement stacks shall be consistent with design (approved construction completed). (PSD 01-03). Certify stack dimensions meet discharge characteristics presented in PSD application (certification completed). Report any changes to stack diameter or height after stack dimensions are certified. (Order 3462-AQ07).

**D3. POWER BOILER 16**

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
D3.1	PM&PM10	0.1 gr/dscf @ 7% O <sub>2</sub> , 1-hr average.	Sample M/Q (oil fired) and T/M (natural gas fired) using RM5 (see appendix ApA.2 and footnote D3F.1). Report results in monthly report for month tested.	PSD 01-03.
	PM	0.1 gr/dscf @ 7% O <sub>2</sub> , 1-hr average.	Same as for previous limit.	WAC 173-405-040(5)(c).
	PM&PM10	475 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.	PSD 01-03.
D3.2	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period (see footnote D3F.2).	Monitor continuously using PS 1 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report daily maximum concentrations, daily average concentrations, and excursions monthly. Compliance may also be determined using RM 9.	Order 3462-AQ07.
		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.	Same as for previous limit.	WAC 173-405-040(6) for basis of limit. WAC 173-400-105(5)(a) for basis of monitoring.
D3.3	SO <sub>2</sub>	250 ppmdv @ 7% O <sub>2</sub> , 3-hr average.	Calculate based on fuel S concentration (see ApA.4). Report monthly average fuel S concentration and SO <sub>2</sub> stack concentration.	PSD 01-03.
		1000 ppm @ 7% O <sub>2</sub> , 1-hr average.	Same as for previous limit.	WAC 173-405-040(11)(b).
		1357 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.	PSD 01-03.
D3.4	CO	525 lb/hr, 8-hr average.	Sample A/M using RM 10 (see appendix ApA.2). Calculate per appendix ApA.4 without dividing by fuel applied. Report test results in monthly report for month tested.	PSD 01-03.
		2300 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.	PSD 01-03.
D3.5	NO <sub>x</sub>	410 ppmdv @ 7% O <sub>2</sub> , 24-hr average.	Sample A/M using RM 7 (see appendix ApA.2). Report test results in monthly report for month tested.	PSD 01-03.

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
		1679 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.	PSD 01-03.
D3.7	Operating Limit	525 mmBtu/hr fuel application rate.	Report average hourly fuel application rate in mmBtu/hr (see Appendix ApA.1).	PSD 01-03.
D3.8	Stack dimensions		See footnote D3F.3.	PSD 01-03 and Order 3462-AQ07.

Footnotes:

D3F.1	If at any time between source tests the power boiler is oil-fired, the M/Q test frequency shall apply until a source test on oil-firing has been performed and passed. (PSD 01-03).			
D3F.2	The exception for emissions due to soot blowing or grate cleaning for up to 15 minutes in 8 consecutive hours applies to this limit (WAC 173-405-040(6)).			
D3F.3	The modified or replaced exhaust stacks shall be designed in such a way that modeled exhaust gas dispersion is equal to or better than that indicated for the originally-proposed design in the modeling reported in the application for this PSD permit. Plans for the stack design must be approved in writing by Ecology prior to initiation of construction of the stack. Construction of the modified or replacement stacks shall be consistent with design (approved construction completed). (PSD 01-03). Certify stack dimensions meet discharge characteristics presented in PSD application (certification completed). Report any changes to stack diameter or height after stack dimensions are certified. (Order 3462-AQ07).			

**D4. POWER BOILER 20**

Opacity limits apply to each stack individually. All other limits apply to the total emissions from the combined stacks.

The source shall comply with the requirements of 40 CFR Part 60 Subpart D. The source shall also comply with the general requirements of 40 CFR Part 60 including:

- 40 CFR 60.7(b) & (f) concerning recordkeeping,
- 40 CFR 60.7(c), (d), & (e) concerning reporting,
- 40 CFR 60.11(d) concerning operation and maintenance,
- 40 CFR 60.12 concerning concealment,
- 40 CFR 60.13 concerning monitoring, and
- 40 CFR 60.19 concerning notification and reporting.

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
D4.1	PM&PM10	0.030 gr/dscf @ 7% O <sub>2</sub> , 1-hr average.	Sample M/Q using RM5 (see appendix ApA.2). Report results in monthly report for month tested. See Footnote D4F.1 for CAM requirements.	Order 3466-AQ07.
	PM&PM10	0.048 gr/dscf @ 7% O <sub>2</sub> , 1-hr average.	Same as previous limit.	PSD 01-03.
	PM	0.10 lb/mmBtu.	Same as for previous limit (see footnote D4F.4).	40 CFR 60.42(a)(1).
	PM	0.2 gr/dscf @ 7% O <sub>2</sub> , 1-hr average.	Same as for previous limit.	WAC 173-405-040(5)(a).
	PM&PM10	234 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.	Order 3466-AQ07.
	PM&PM10	365 TPY, 12-month total.	Same as for previous limit.	PSD 01-03.
D4.2	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period (see footnote D4F.2).	See footnote D4F.3.	Order 3462-AQ07.
		Average 20% for more than 6 consecutive minutes in any 60 minute period, except for one six minute period of not more than 27% opacity.	Same as for previous limit (see footnotes D4F.4 and D4F.5).	40 CFR 60.42(a)(2) for basis of limit. 40 CFR 60.45(a) for basis of monitoring.
		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.	Same as for previous limit.	WAC 173-405-040(6) for basis of limit. WAC 173-400-105(5)(d) for basis of monitoring.

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
D4.3	SO <sub>2</sub>	100 ppm <sub>dv</sub> @ 7% O <sub>2</sub> , 3-hr average.	Monitor continuously using PS 2 (see appendix ApA.2). See 1&3 in appendix B for data recovery requirements. Report 3-hr average concentrations, monthly average concentration, maximum monthly 3-hr average concentration, and excursions monthly.	PSD 01-03.
		1000 ppm @ 7% O <sub>2</sub> , 1-hr average.	Same as for previous limit. Report excursions monthly.	WAC 173-405-040(11)(b).
		0.8 lb/mmBtu, 3-hr average.	Monitor continuously using PS 2 (see appendix ApA.2). See 1&3 in appendix B for data recovery requirements. Report 3-hr average concentrations, monthly average concentration, maximum monthly 3-hr average concentration, and excursions monthly (see footnote D4F.5).	40 CFR 60.43(a)(1) for basis of limit. 40 CFR 60.45(a) for basis of monitoring.
		946 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.	PSD 01-03.
D4.4	CO	900 lb/hr, 8-hr average.	Sample A/M using RM 10 (see appendix ApA.2). Calculate per appendix ApA.4 without dividing by fuel applied. Report test results in monthly report for month tested.	PSD 01-03.
		3942 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.	PSD 01-03.
D4.5	NO <sub>x</sub> when firing only natural gas:	0.20 lb/mmBtu fuel application rate, 3-hr average.	Monitor continuously using PS 2 (see appendix ApA.2). See 1&3 in appendix B for data recovery requirements. Report 3-hr average concentrations, monthly average concentration, maximum monthly 3-hr average concentration, and excursions monthly.	PSD 01-03.
	NO <sub>x</sub> when firing only natural gas:	0.20 lb/mmBtu fuel application rate, 3-hr average.	Same as for previous limit (see footnote D4F.5).	40 CFR 60.44(a)(1) for basis of limit. 40 CFR 60.45(a) for basis of monitoring.
	NO <sub>x</sub> when firing other fuel:	0.30 lb/mmBtu fuel application rate, 3-hr average.	Monitor continuously using PS 2 (see appendix ApA.2). See 1&3 in appendix B for data recovery requirements. Report 3-hr average concentrations, monthly average concentration, maximum monthly 3-hr average concentration, and excursions monthly.	PSD 01-03.
	NO <sub>x</sub> when firing other fuel:	0.30 lb/mmBtu fuel application rate, 3-hr average.	Same as for previous limit (see footnote D4F.5).	40 CFR 60.44(a)(2) for basis of limit. 40 CFR 60.45(a) for basis of monitoring.
	NO <sub>x</sub>	1183 TPY, 12-month total.	Calculate per appendix ApA.4. Report monthly.	PSD 01-03.

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
D4.6	O <sub>2</sub>	no limit – required for O <sub>2</sub> correction.	Monitor continuously using PS 3. See 1&3 in appendix B for data recovery requirements.	40 CFR 60.45(a) and Order 3462-AQ07.
D4.7	Operating Limit	900 mmBtu/hr fuel application rate.	Report average hourly fuel application rate in mmBtu/hr (see Appendix ApA.1).	PSD 01-03.
D4.8	Stack dimensions		See footnote D4F.6.	PSD 01-03 and Order 3462-AQ07.
D4.9	Unit must employ RACT. Per WAC 173-401-605(3), RACT is defined as emission standards and other requirements in effect at the time of air operating permit issuance. Unit must be operated and maintained to minimize emissions. (WAC 173-400-070(2)(b)).			
D4.10	<p>Medical/infectious waste generated by operation of the on site medical center and from clean up of mill accidents may be co-combusted in Power Boiler Nos. 12, 13, and/or 20. LFPP shall not combust medical/infectious waste other than that generated by operation of the on site medical center and from clean up of mill accidents. During each calendar quarter, the weight of medical/infectious waste combusted shall not exceed 0.01% of the total weight of hog fuel, fuel oil, and natural gas combusted in the power boilers (sum of fuel burned in Nos. 12, 13, and 20). Also, for each calendar year, the total weight of medical/infectious waste burned in the power boilers (sum of medical/infectious waste burned in Nos. 12, 13, and 20), shall not exceed 5,000 pounds.</p> <p>LFPP shall report in the monthly report within 15 days of the end of each calendar quarter:</p> <ol style="list-style-type: none"> <li>the weight of medical/infectious waste combusted during the calendar quarter,</li> <li>the total weight of hog fuel, fuel oil, and natural gas combusted in the power boilers (sum of fuel burned in Nos. 12, 13, and 20) during the calendar quarter,</li> <li>the ratio of a:b as a percentage for the calendar quarter, and</li> <li>the weight of medical/infectious waste combusted during the calendar year to date. (Order 99AQ-I052).</li> </ol>			

Footnotes:

D4F.1	Emission control parameter monitoring is required when exhaust gasses are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Begin corrective action when an exceedence occurs (any 3-hr average out of compliance with emission control parameters). A violation occurs when 6 or more 3-hr averages are out of compliance with any emission control parameter requirements during a 6 month reporting period (not including applicable periods of startup, shutdown, or malfunction). For the purpose of determining the number of noncapacity exceedences, no more than one exceedence can occur per 24 hour period. Report exceedences monthly, and violations every 6 months. (CAM Plan and AOP Gap Filling).
D4F.2	The exception for emissions due to soot blowing or grate cleaning for up to 15 minutes in 8 consecutive hours applies to this limit (WAC 173-405-040(6)).

D4F.3	Emission control parameter monitoring is required when exhaust gasses are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see appendix C). Continuously monitor parameters specified in the plan. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9. (Order 3462-AQ07).
D4F.4	The alternative opacity monitoring requirement has not yet been approved by EPA. Should the monitoring requirements approved by EPA differ from those in Condition D4.2, the permit will be opened and the condition will be revised to reflect the EPA approved alternative opacity monitoring requirements.
D4F.5	Excess emissions reports meeting the requirements of 40 CFR 60.45(g) shall be submitted. The reports shall be submitted semi-annually, but may be submitted more frequently.
D4F.6	The modified or replaced exhaust stacks shall be designed in such a way that modeled exhaust gas dispersion is equal to or better than that indicated for the originally-proposed design in the modeling reported in the application for this PSD permit. Plans for the stack design must be approved in writing by Ecology prior to initiation of construction of the stack. Construction of the modified or replacement stacks shall be consistent with design (approved construction completed). (PSD 01-03). Certify stack dimensions meet discharge characteristics presented in PSD application (certification completed). Report any changes to stack diameter or height after stack dimensions are certified. (Order 3462-AQ07).

**E1. COGEN 23**

The source shall comply with the requirements of 40 CFR Part 60 Subpart GG. The source shall also comply with the general requirements of 40 CFR Part 60 including:

- 40 CFR 60.7(b) & (f) concerning recordkeeping,
- 40 CFR 60.7(c), (d), & (e) concerning reporting,
- 40 CFR 60.11(d) concerning operation and maintenance,
- 40 CFR 60.12 concerning concealment,
- 40 CFR 60.13 concerning monitoring, and
- 40 CFR 60.19 concerning notification and reporting.

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
E1.1	PM & PM10	0.002 gr/dscf @ 15% O <sub>2</sub> , 1-hr average.	Sample triennially using RM 5. Report test results in monthly report for months when tested.	PSD 01-03.
	PM	0.05 gr/dscf @ 7% O <sub>2</sub> , 1-hr average.	Same as for previous limit.	WAC 173-405-040(5)(b).

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
E1.2	Opacity	5% average for more than 6 consecutive minutes in any 60 minute period.	Compliance demonstrated by burning only natural gas (see condition E1.10). Compliance may also be determined using RM 9.	Order 3462-AQ07.
		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.	Same as for previous limit.	WAC 173-405-040(6).
E1.3	SO <sub>2</sub>	Only pipeline quality natural gas may be used as fuel.	Maintain purchase records and vendor's reports for five years. Report alternative fuel use monthly.	PSD 01-03.
		Fuel ≤0.8% S by weight.	Limit met by burning only natural gas (see footnote E1F.2).	40 CFR 60.333(b) for basis of limit.
		1000 ppm @ 7% O <sub>2</sub> , 1-hr average.	Same as for previous limit.	WAC 173-405-040(11)(b).
E1.4	CO	12 ppmdv @ 15% O <sub>2</sub> , 1-hr average (except during startup and shutdown periods).	Monitor continuously using PS 4 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report 1-hr average concentrations, maximum monthly 1-hr average concentration, and excursions monthly.	PSD 01-03.
		481 lb/D, daily total (except during startup and shutdown periods).	Calculate with continuous monitoring data from previous limit. Report daily emissions and excursions monthly.	PSD 01-03.
		Startup and shutdown periods: 200 ppmdv @ 15% O <sub>2</sub> , 1-hr average - not to exceed 3 hr/D.	Monitor continuously using PS 4 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report data for startup and shutdown data periods monthly.	PSD 01-03.
		Startup and shutdown periods: 300 lb/hr - not to exceed 3 hr/D.	Calculate with continuous monitoring data from previous limit. Report data for startup and shutdown data periods monthly. Note: startup and shutdown data are not included in calculating the daily total limit.	PSD 01-03.

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
E1.5	NO <sub>x</sub>	7 ppmdv @ 15% O <sub>2</sub> , 24-hr average.	Monitor continuously using PS 2 (see appendix ApA.2). See 1&3 in appendix B for data recovery requirements. Report daily average concentrations, maximum monthly 24-hr average concentration, and excursions monthly.	PSD 01-03.
		96 ppm @ 15% O <sub>2</sub> , 1- hr average.	Same as for previous concentration limit (see footnote E1F.1). Report excursions monthly.	40 CFR 60.332(a)(2).
		461 lb/D, daily total.	Calculate per appendix ApA.4. Report monthly.	PSD 01-03.
E1.6	NH <sub>3</sub>	10 ppm @ 15% O <sub>2</sub> , 24- hr average.	Monitor continuously using PS 2 (see appendix ApA.2). See 1&4 in appendix B for data recovery requirements. Report daily average concentrations, maximum monthly 24-hr average concentration, and excursions monthly. (see footnote E1F.2).	Order 3462-AQ07.
		244 lb/D, daily total.	Calculate with continuous monitoring data from previous limit. Report daily emissions and excursions monthly.	Order 3462-AQ07.
E1.7	O <sub>2</sub>	no limit – required for O <sub>2</sub> correction.	Monitor continuously using PS 3. See 1&4 in appendix B for data recovery requirements.	Order 3462-AQ07.
E1.8	VOC	168 lb/D	Sample T/M using RM 25A (see appendix ApA.2). Report test results in monthly report for months when tested.	PSD 01-03.
E1.9	Operating Limit	896.6 mmBtu/hr fuel consumption based on higher heat value.	Report daily maximum fuel consumption in mmBtu/hr. Report monthly.	PSD 01-03.

E1.10 Pipeline quality natural gas shall be the only fuel supplied to and used to operate the Cogen. (Order DE 3462-AQ07).

Footnotes:

E1F.1	Excess emissions reports meeting the requirements of 40 CFR 60.284(d) & (e) shall be submitted. The reports shall be submitted semi-annually, but may be submitted more frequently.
E1F.2	Ammonia concentrations shall be calculated continuously using data from inlet and outlet NO <sub>x</sub> meters meeting PS 2. (Order DE 3462-AQ07).

**F1. NEUTRAL SULFITE SEMI-CHEMICAL PLANT (NSSC)**

Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
F1.1	VOC 26.4 T/yr.	Calculate and report per footnote F1F.1.	Order DE 3462-AQ07.
F1.2	Gases from the new chip bin (presteaming bin), refined stock blow tank, and chemi-washer filtrate vent of the neutral sulfite semi chemical (NSSC) pulping process shall be collected and burned as NCGs. (Order DE 3462-AQ07).		
F1.3	Prior to charging any material from the Kraft process into the NSSC system, LFPP shall submit information to Ecology and the EPA Office of Air Quality Planning and Standards (OAQPS) for a determination of New Source Performance Standards (NSPS) for Kraft Pulping Mills (40 CFR Subpart BB) applicability. LFPP shall provide any additional information requested to make the determination in a timely manner. Prior to charging material from the Kraft process into the NSSC system during the decision making period, LFPP shall install and operate controls equivalent to those required by 40 CFR Subpart BB. After receiving the OAQPS decision, Ecology shall, if necessary, issue an Order to LFPP concerning compliance with the NSPS rules. (Order DE 3462-AQ07).		
F1.4	The operation and maintenance manual for the NSSC shall contain a section specifying best management practices necessary to meet toxics and VOC emission rates included in the NOC application. Copies of the manual shall be kept on file at LFPP and be available for Department inspection. Failure to follow the best management practices specified in the manual to meet the toxics and VOC emission rates shall be considered proof of excess emissions due to the equipment not being properly operated and maintained in accordance with RCW 70.94.152(7). (Order DE 3462-AQ07).		

Footnotes:

F1F.1 Compliance with NSSC VOC annual limit shall be calculated as follows: (Order DE 3462-AQ07).

- Tons per year of VOC =
- tons per year of VOC from Hi Density Storage #1
  - + tons per year of VOC from Hi Density Storage #2
  - + tons per year of VOC from Lo Density Storage
  - + tons per year of VOC from the Side Hill Screen
  - + tons per year of VOC from the Wash Water Chest.

The tons per year of VOC from the individual emission points shall be calculated as follows during the first five years after permit issuance:

VOC from Hi Density Storage #1, Hi Density Storage #2, and Lo Density Storage shall be calculated as follows:

$$\frac{\text{hrs NSSC operation}}{\text{yr}} \times \frac{\text{lb C}}{\text{hr}} \times \frac{\text{ton VOC}}{2000 \text{ lb VOC}} = \frac{\text{ton VOC}}{\text{yr}}$$

where lb C/hr is:

- 0.035 lb C/hr for Hi Density Storage #1,
- 0.090 lb C/hr for Hi Density Storage #2, and
- 0.004 lb C/hr for Lo Density Storage.

VOC from the Side Hill Screen and the Wash Water Chest shall be calculated as follows:

$$\frac{\text{ODTP (NSSC)}}{\text{yr}} \times \frac{\text{lb C}}{\text{ODTP}} \times \frac{\text{ton VOC}}{2000\text{lb VOC}} = \frac{\text{ton VOC}}{\text{yr}}$$

where lb C/ODTP is:

- 0.099 lb C/ODTP for the Side Hill Screen, and
- 0.039 lb C/ODTP for the Wash Water Chest.

The following information for the NSSC shall be included for the previous year in each January monthly report:

- hours of NSSC operation during the calendar year,
- NSSC pulp produced for during the calendar year as ODTP, and
- VOC emitted in tons/year during the calendar year.

The VOC emission factors:

- lb C/hr for Hi Density Storage #1,
- lb C/hr for Hi Density Storage #2,
- lb C/hr for Lo Density Storage,
- lb C/ODTP for the Side Hill Screen, and
- lb C/ODTP for the Wash Water Chest

shall be updated every fifth year. At least one source test shall be conducted at each emission point to supplement the existing data prior to emission factor recalculation (due to safety considerations, the Hi Density Storage #2 emission factor may be calculated based on the VOC concentration in the Hi Density Storage #1 vent). Data collection for calculation of the VOC emission factors shall conform with RM 25A as defined in the footnotes for Table 1 of this order. The method of recalculation shall be as follows:

$$(0.6 \times \text{EA}) + (0.4 \times \text{AF}) = \text{updated emission factor}$$

Where:

- EA is the emission factor used for emission calculations, and
- AF is the emission factor for data collected during the five year period.

The updated VOC emission factor shall be submitted to Ecology prior to the end of the fifth year after permit issuance, and every five years thereafter. Calculation with the updated VOC emission factors shall commence at the end of the fifth year after permit issuance, and every five years thereafter.

**F2. NSSC SULFUR BURNER (SCMS).**

The SCMS shares a common stack with lime kiln 3. Emissions from common stacks must meet the most restrictive standards of any of the connected units. (WAC 173-400-040).

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
F2.1	PM	0.10 gr/dscf, one hour average.	Same as for condition C3.1.	WAC 173-410-040(2)(c)(iii).
F2.2	Opacity	35% average for more than 6 consecutive minutes in any 60 minute period.	Same as for condition C3.2.	WAC 173-410-040(3).
F2.3	SO <sub>2</sub>	800 ppm, one hour average.	Same as for condition C3.3.	WAC 173-410-040(1)(d).

**G1. DIGESTERS, MULTIPLE-EFFECT EVAPORATORS, BROWNSTOCK WASHERS, AND CONDENSATE STRIPPER SYSTEMS**

G1.1	Requirements G1.1a and G1.1b apply to Kamyr Digester and Washer No. 1; Kamyr Digester and Washer No. 2; and Multiple-effects evaporator set 10, only:
G1.1a	The sources shall comply with the requirements of 40 CFR Part 60 Subpart BB. The source shall also comply with the general requirements of 40 CFR Part 60 including: 40 CFR 60.7(b) & (f) concerning recordkeeping, 40 CFR 60.7(c), (d), & (e) concerning reporting, 40 CFR 60.11(d) concerning operation and maintenance, 40 CFR 60.12 concerning concealment, 40 CFR 60.13 concerning monitoring, and 40 CFR 60.19 concerning notification and reporting.

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
G1.1b	TRS	5 ppmv @ 10% O <sub>2</sub> , unless combusted in a lime kiln or equivalent.	Monitoring required by Conditions C1.4, C2.4, C3.4, C4.4, D1.4, and D2.4 shall be used to demonstrate compliance with this requirement (see footnote G1F.1).	40 CFR 60.283(a)(1) for basis of limit. 40 CFR 60,283(a)(1)(iii) for basis of monitoring.

G1.2 All noncondensable gases from the digesters, evaporators, and the condensate stripper system shall be continuously treated to reduce the emission of TRS equal to the reduction achieved by thermal oxidation in a lime kiln.  
The noncondensable gasses (NCGs) shall be burned in one of, or a combination of the following units; Lime Kilns 1, 2, 3, and 4, and Power Boilers 12 and 13. To provide continuous treatment:  
the NCG collection and treatment system shall be properly operated and maintained at all times,  
venting shall be minimized, and  
venting necessary for safe/proper system operation and maintenance shall not exceed 10 hours per month.  
Report venting duration and cause in the monthly air report. (WAC 173-405-040(4) and Order 3462-AQ07).

G1.3 The following **state-only** requirements are not federally enforceable under the federal Clean Air Act:

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
G1.3a	TRS	treat noncondensable gasses to reduce TRS emission equal to reduction achieved by thermal oxidation in a lime kiln; install a backup treatment system.	Monitoring required by Condition G1.1b shall be used to demonstrate compliance with this requirement.	WAC 173-405-040(4).

Footnotes:

G1F.1 Excess emissions reports meeting the requirements of 40 CFR 60.284(d) & (e) shall be submitted. The reports shall be submitted semi-annually, but may be submitted more frequently.

## G2. PAPER MACHINES

G2.1 Additives used in the paper-making process on the paper machines shall be "low-VOC". LFPP shall annually submit a list of additives used in the paper-making process on the paper machines and identify those that are not "low-VOC." (PSD 01-03).

## G3. BOX PLANT PRODUCTION LINES

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
G3.1	HAPS	HAP applied $\leq 0.04$ times mass of material applied, monthly average (see footnote G3F.1).	Report quantity of material applied, 0.04 times quantity of material applied, and quantity of HAP applied monthly (see footnote G3F.1). Report exceedences semi-annually.	40 CFR Part 63, §63.825(b) & (b)(4) and §63.830.

Footnotes:

G3F.1 Material applied includes inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, and other materials applied.

## H1. MILLWIDE LIMITS

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
H1.1	PM & PM10	698.5 TPY, 12-month rolling total.	Report 12-month rolling total in monthly report (see ApA.5).	PSD 01-03.
H1.2	SO <sub>2</sub>	1885 TPY, 12 month rolling total.	Report 12-month rolling total in monthly report (see ApA.5).	PSD 01-03.
H1.3	CO	7056.5 TPY, 12 month rolling total.	Report 12-month rolling total in monthly report (see ApA.5).	PSD 01-03.
H1.4	NO <sub>x</sub>	3028.5 TPY, 12 month rolling total.	Report 12-month rolling total in monthly report (see ApA.5).	PSD 01-03.
H1.5	TRS/H <sub>2</sub> S (assume all TRS is H <sub>2</sub> S)	263 TPY, 12 month rolling total.	Report 12-month rolling total in monthly report (see ApA.5).	PSD 01-03.
H1.6	VOCs	1674 TPY, 12 month rolling total.	Report 12-month rolling total in monthly report (see ApA.5).	PSD 01-03.

	<b>Parameter</b>	<b>Limit</b> (shall not exceed)	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
H1.7	Kraft pulp production	2800 MDT/D, 12-month rolling average.	Report 12-month rolling average in monthly report (see ApA.5).	PSD 01-03.
H1.8	Total primary production (see ApA.1(4))	3600-MDT/D, 12 month rolling average.	Report 12-month rolling average in monthly report (see ApA.5).	PSD 01-03.
H1.9	Steam production @ the main header	2.6 million lb/hr @ 800 psig, 1-hr average.	Report maximum hourly steam production for each day in monthly report (see ApA.5).	PSD 01-03.

**I. COMPLIANCE ASSURANCE MONITORING (CAM)**

Under 40 CFR Part 64 LFPP is required to submit a CAM Plan. CAM monitoring requirements are applicable for units and parameters noted in the following table.

Unit	PM&PM10	SO <sub>2</sub>	NO <sub>x</sub>
RF 15	X		
RF 18	X		
RF 19	X		
RF 22	X		
SDT 15	X		
SDT 18	X		
SDT 19	X		
SDT 22	X		
LK 1	X	X	
LK 2	X	X	
LK 3	X	X	
LK 4	X	X	
LK 5	X		
PB 12	X	X	
PB 13	X	X	
PB 20	X	X	
Cogen 23			X

MACT monitoring requirements [40 CFR Part 63.864] for units and parameters noted in the following table satisfy the requirements for CAM.

Unit	PM&PM10
RF 15	X (see A1.9)
RF 18	X (see A2.9)
RF 19	X (see A3.9)
RF 22	X (see A4.9)
SDT 15	X (see B1.8)
SDT 18	X (see B2.8)
SDT 19	X (see B3.8)
SDT 22	X (see B4.8)
LK 1	X (see C1.10)
LK 2	X (see C2.10)
LK 3	X (see C3.10)
LK 4	X (see C4.10)
LK 5	X (see C5.9)

CAM monitoring requirements are satisfied by maintaining a CEMS for units and parameters noted in the following table.

Unit	SO <sub>2</sub>	NO <sub>x</sub>
PB 12	X (see D1.4)	
PB 13	X (see D2.4)	
PB 20	X (see D4.3)	
Cogen 23		X (see E1.5)

CAM monitoring requirements are satisfied by monitoring emission controls for units and parameters noted in the following table.

Unit	PM&PM10
PB 12	X (see D1.1)
PB 13	X (see D2.1)
PB 20	X (see D4.1)

CAM monitoring requirements are satisfied by monitoring fuel type, NCG destination, and caustic addition for units and parameters noted in the following table.

Unit	SO <sub>2</sub>
LK 1	X (see C1.3)
LK 2	X (see C2.3)
LK 3	X (see C3.3)
LK 4	X (see C4.3)

**J. NESHAP SSM PLAN, RECORDKEEPING, AND REPORTING**

The LFPP mill contains affected sources subject to the NESHAP for the Pulp and Paper Industry (Subpart S) and the NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills (Subpart MM). The SSM Plan, recordkeeping and reporting requirements in J.1 through J.10 apply to the affected sources listed in sections A, B, C, D, K, L, and M of this permit. The requirements in J.11 apply to the affected sources listed in sections K, L, and M. The requirements in J.12 apply to the affected sources listed in sections A, B and C.

(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.)

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
J.1	HAPs	Operation and Maintenance/ SSM Plan	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).	40 CFR Part 63, §63.6(e)(3)(i).
J.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 Part 63, §63.6(e)(3)(i).
J.3			Change the SSM plan, if required by Ecology, if it is determined to be unacceptable under 40 CFR 63.6(e)(2).	40 CFR Part 63, §63.6(e)(3)(i).
J.4			Update the SSM plan within 45 days of an SSM event that the plan failed to address or inadequately addressed.	40 CFR Part 63, §63.6(e)(3)(i).
J.5			Recordkeeping (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.

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
J.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 Part 63, §63.10(b)(1) and §63.6(e)(3)(v).
J.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 or 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, §63.10(d)(5)(ii) and WAC 173-401-615(3).
J.8			Semi-annual NESHAP Subparts S & MM Summary Report. The monthly CEM reports filed (by July 30 <sup>th</sup> and January 30 <sup>th</sup> ) 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, §63.10(e)(3) and WAC 173-401-615(3).
J.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 J of this AOP shall include a statement to that effect.	40 CFR Part 63, §63.10(d)(5)(i) and WAC 173-401-615(3).
J.10			Comply with NESHAP General Reporting.	40 CFR Part 63, §63.10(b) and (c).
J.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 §63.455(a); 40 CFR Part 63 §63.455(b)(1) through (b)(3); and 40 CFR Part 63 Subpart A, Section §63.9(b)(2).

Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
J.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 exceedence and the time the exceedence began and ended; corrective actions to be taken in the event of an operating parameter exceedence, including procedures for recording the actions taken to correct the exceedence; 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, §63.866(a).

**K. LOW VOLUME HIGH CONCENTRATION (LVHC) SYSTEM**

(NESHAP Subpart S)

Applies to offgases from:

- #1 Kamyrdigester,
- # 2 Kamyrdigester,
- # 16, 18, 19, 20, & 21 Batch digester systems (including #3 blow tank),
- # 5, 6, 7, 8, 15, 17, 19, 20, & 21 Batch Digester systems (including #7 Blow Tank),
- #4 Evaporator System,
- #5 Evaporator System,
- #6 Evaporator System,
- #7 Evaporator System,
- #8 Evaporator System,
- #9 Evaporator System,
- #10 Evaporator System,
- Turpentine System,
- Steam Stripper System,
- #3 Blow Heat Recovery System Surge Tank, and
- Spill Tank.

[40 CFR Part 63, §63.443(a)(1)(i) & 40 CFR Part 63, §63.440(d)] (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.)

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
K.1	HAPs	Collection and Treatment	LVHC non-condensable gas source group emissions shall be enclosed and vented into a closed-vent system and routed to lime kiln #s 1, 2, 3, and/or 4; and/or power boiler #s 12 and/or 13.	40 CFR Part 63, §63.443(c).
K.2			Each enclosure shall maintain negative pressure at each enclosure or hood opening as demonstrated by the procedures in 40 CFR Part 63, §63.457(e). Each enclosure or hood opening closed during the initial performance test shall be maintained in the closed position at all times except when necessary to open for sampling, inspection, maintenance, or repairs.	40 CFR Part 63, §63.450(a)&(b).
K.3			Each component of the closed-vent system used to control LVHC non-condensable gas source group emissions that is operated at positive pressure and located prior to a control device shall be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500 ppmv above background, as measured by 40 CFR 60, Appendix A, Method 21.	40 CFR Part 63, §63.450(c) and 40 CFR Part 63, §63.457(d).
K.4			Each bypass line in the closed-vent system that could divert vent streams containing HAP to the atmosphere without meeting the limitations in 40 CFR Part 63, §63.443 shall comply with the following: On each bypass line; install, calibrate, maintain, and operate according to manufacturer's specifications a flow indicator that provides a record of the presence of gas stream flow in the bypass line at least once every 15 minutes. The flow indicator shall be installed in the bypass line in such a way as to indicate flow in the bypass line (note: monitoring bypass valve position is a satisfactory flow indicator). For bypass line valves that are not computer controlled, maintain the bypass line valve in the closed position with a car seal or a seal placed on the valve or closure mechanism in such a way that valve or closure mechanism cannot be opened without breaking the seal.	40 CFR Part 63, §63.450(d).
K.5			Introduce LVHC gases with the primary fuel or into flame zone of the Lime Kilns.	40 CFR Part 63, §63.443(d)(4).
K.6	Inspection and Monitoring	Install, calibrate, certify, operate, and maintain according to the manufacturer's specifications, a continuous monitoring system as specified in 40 CFR 63.453 (b) through (m) except as allowed in 40 CFR 63.453(m). The CMS shall include a continuous recorder.	40 CFR Part 63, §63.453(b) through (m).	

Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
K.7		<p>For each enclosure opening, a visual inspection of the closure mechanism shall be performed at least once every 30 days to ensure the opening is maintained in the closed position and sealed.</p> <p>For this condition 30 days shall be interpreted to mean: at least once per calendar month with no two consecutive inspections occurring within 14 days.</p>	<p>40 CFR Part 63, §63.453(k)(1).</p> <p>Order 3463-AQ07.</p>
K.8		<p>Each closed vent system (reasonably accessible ductwork, piping, enclosures, and connections to covers in the collection system for the LVHC non-condensable gas source group) shall be visually inspected for visible evidence of defects every 30 days or as requested by the Department.</p> <p>For this condition 30 days shall be interpreted to mean: at least once per calendar month with no two consecutive inspections occurring within 14 days.</p>	<p>40 CFR Part 63, §63.453(k)(2).</p> <p>Order 3463-AQ07.</p>
K.9		<p>Measure initially and annually components of closed-vent systems under positive pressure for detectable leaks as specified in 40 CFR Part 63, §63.457(d).</p> <p>For locations where safe access is not readily available, LFPP shall submit a list to Ecology with a brief explanation of safety concerns. Upon Ecology approval:</p> <ul style="list-style-type: none"> <li>(1) measurement for detectable leaks at locations specified on the list shall not be required annually, and</li> <li>(2) measurement for detectable leaks at locations specified on the list shall be required once per five year interval.</li> </ul>	<p>40 CFR Part 63, §63.453(k)(3).</p> <p>Order 3463-AQ07.</p>
K.10		<p>Demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in 40 CFR Part 63, §63.457(e).</p> <p>For locations where safe access is not readily available, LFPP shall submit a list to Ecology with a brief explanation of safety concerns. Upon Ecology approval:</p> <ul style="list-style-type: none"> <li>(1) measurement for detectable leaks at locations specified on the list shall not be required annually, and</li> <li>(2) measurement for detectable leaks at locations specified on the list shall be required once per five year interval.</li> </ul>	<p>40 CFR Part 63, §63.453(k)(4).</p> <p>Order 3463-AQ07.</p>

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
K.11			<p>If an inspection of the LVHC non-condensable gas collection system identifies visible defects, or if an instrument reading of 500 ppmv or greater above background is measured by 40 CFR 60, Appendix A, Method 21 in accordance with the procedures in 40 CFR Part 63, §63.457(d), or if enclosure openings are not maintained at negative pressure, take the following corrective action as soon as practicable.</p> <p>Make a first effort to repair or correct the closed-vent system as soon as practicable but no later than 5 calendar days after the problem is identified.</p> <p>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 the permittee determines that the emissions resulting from 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.</p>	40 CFR Part 63, §63.453(k)(6) and 40 CFR Part 63, §63.457(d).
K.12		Recordkeeping (specific to LVHC)	<p>For each applicable enclosure opening, closed vent system, and closed collection system, prepare and maintain a site-specific inspection plan, including a drawing or schematic of the components of applicable affected equipment and shall record the following information for each inspection:</p> <ul style="list-style-type: none"> <li>date of inspection,</li> <li>equipment type and identification,</li> <li>results of negative pressure tests for enclosures, and</li> <li>results of leak detection tests.</li> </ul> <p>In addition, if any defects or leaks are detected record:</p> <ul style="list-style-type: none"> <li>nature of the defect or leak and the method of detection,</li> <li>date the defect or leak was detected and the date of each attempt to repair the defect or leak,</li> <li>repair methods applied in each attempt to repair the defect or leak,</li> <li>reason for the delay if the defect or leak is not repaired within 15 days,</li> <li>expected date of successful repair of the defect or leak if the repair is not completed within 15 days,</li> <li>date of successful repair of the defect or leak,</li> <li>position and duration of opening of bypass line valves and the condition of any valve seals, and</li> <li>duration of the use of manual or computer-controlled bypass valves.</li> </ul>	40 CFR Part 63, §63.454(b).

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
K.13			Records shall be maintained for all periods of excess emissions. Periods of excess emissions from the LVHC non-condensable gas source group are not violations of 63.443(c) and (d) provided that the time of excess emissions, not including periods of startup, shutdown, and malfunction, divided by the total process operating time in a semiannual reporting period does not exceed one (1) percent from the computer-controlled bypass valves in the LVHC system.	40 CFR Part 63, §63.443(e)(1).
K.14		SSM Plan	LFPP shall comply with the SSM plan requirements identified in section J of this AOP.	40 CFR Par 63, §63.6(e)(3)(i) and §63.866(a).

#### L. PULPING PROCESS CONDENSATES

(NESHAP Subpart S)

Applies to:

- #1 Kamyrdigester System Foul Condensates,
- #2 Kamyrdigester System Foul Condensates,
- #4 Evaporator Surface Condenser, Vacuum System & Vapor Condensates off a Primary Feed Effect,
- #5 Evaporator Surface Condenser, Vacuum System & Vapor Condensates off a Primary Feed Effect,
- #6 Evaporator Surface Condenser, Vacuum System & Vapor Condensates off a Primary Feed Effect,
- #7 Evaporator Surface Condenser, Vacuum System & Vapor Condensates off a Primary Feed Effect,
- #8 Evaporator Surface Condenser, Vacuum System & Vapor Condensates off a Primary Feed Effect,
- #9 Evaporator Surface Condenser, Vacuum System & Vapor Condensates off a Primary Feed Effect,
- #10 Evaporator Surface Condenser, Vacuum System & Vapor Condensates off a Primary Feed Effect,
- Turpentine System, Decanter Underflow Foul Condensate,
- #3 Blow Heat Recovery Accumulator Foul Condensate,
- Batch Digester Systems Black Liquor Separators,
- # 6 Blow Tank Condenser and After Condenser Condensates,
- #3 M&D Continuous Kraft Sawdust Digester System, and
- #4 M&D Continuous Kraft Sawdust Digester System.

[40 CFR Part 63, §63.440(d) and 40 CFR Part 63, §63.6(i)] (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.)

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
L.1	HAPs	Collection and Treatment	<p>Collect kraft pulping condensate streams such that one of the following collection requirements is satisfied:</p> <p>Kraft pulping condensate is collected from all named condensate streams;</p> <p>Kraft pulping condensate is collected from each HVLC collection system, from each LVHC collection system, and from other named condensate streams that in total contain at least 65 percent of the total HAP mass from the kraft pulping condensate from each digester system, each turpentine recovery system, vapors from the weak black liquor feed stages of each evaporator system, and the evaporator vacuum system for each weak black liquor feed stage; or</p> <p>Kraft pulping condensate collected from named condensate streams contains at least 11.1 pounds of total HAP per oven-dry ton of unscreened brownstock.</p> <p>kraft pulping condensate collected from named condensate streams contains at least 11.1 pounds of total HAP per oven-dry ton of unscreened brownstock feeding the bleach plant and 7.2 pounds of total HAP per oven-dry ton of unscreened brownstock not intended for bleaching.</p>	40 CFR Part 63, §63.446(c).
L.2			<p>Transfer collected kraft pulping condensate through a closed collection system. The closed collection system shall meet the requirements in 40 CFR Part 63, Subpart RR, Sections §63.960, §63.961, and §63.962, except for the closed vent systems and control devices shall be designed and operated in accordance with 40 CFR Part 63, §63.443(d) and 63.450.</p>	40 CFR Part 63, §63.446(d)(1).

	Parameter	Limit (shall not exceed)	Monitoring & Reporting	Applicable Requirements
L.3			<p>The permittee is permitted to install and operate condensate collection tanks (CCT) to collect kraft pulping condensate.</p> <p>The CCT shall be equipped so that the fixed roof and all openings are operated with no detectable leaks, as indicated by an instrument reading of less than 500 ppmv above background as measured by 40 CFR 60, Appendix A, Method 21 in accordance with the procedures in 40 CFR Part 63, §63.457(d). Each opening will be maintained in a closed, sealed position at all times that the tank contains condensate, except when necessary to use the openings for sampling, removal, or for equipment inspection, maintenance, or repair.</p> <p>The CCT shall be equipped with a water seal device on the overflow line.</p> <p>The CCT shall be vented to a closed vent system meeting the requirements in 40 CFR Part 63, §63.450. CCT vent gases shall be incinerated in Lime Kiln and/or Hog Fuel Boiler.</p> <p>The CCT shall be inspected for detectable leaks initially and annually using the procedures in 40 CFR Part 63, §63.457(d).</p> <p>Kraft pulping condensate collected in the CCT shall be transferred in a closed collection system to the UNOX Reactor.</p>	<p>40 CFR Part 63, §63.446(d)(2) and 40 CFR Part 63, §63.457(d).</p> <p>40 CFR Part 63, §63.962(b)(2)(i)(A).</p> <p>40 CFR Part 63, §63.446(d)(2)(i).</p> <p>40 CFR Part 63, 63.453(l)(2).</p> <p>40 CFR Part 63, §63.446(e)(2).</p>
L.4			<p>Kraft pulping condensate shall be treated to demonstrate 6.6 lb/ODTP destruction of total HAPs (with methanol as a surrogate).</p>	<p>40 CFR Part 63, §63.446(e)(3), (4), (5).</p>
L.5			<p>LFPP shall not be considered in violation of the collection (L.3) and treatment (L.4) requirements of this order if time for excess emissions (including periods of startup, shutdown, and malfunction) divided by the total process operating time in a semi-annual reporting period does not exceed 10%.</p>	<p>40 CFR Part 63, §63.446(g).</p>
L.6	Inspection and Monitoring		<p>The condensate collection system shall be visually inspected every 30 days. Follow the inspection requirements found in 40 CFR Part 63, §63.964(a)(1)(i)(A), §63.964(a)(1)(v), and §63.964(b)(1) and (2) including:</p> <p>The unburied portion of the collection system piping shall be visually inspected to verify that there are no defects.</p> <p>The inspection shall include verification that appropriate liquid levels in the water seals in the CCT are being maintained and identify any other defects that could reduce water seal control effectiveness.</p>	<p>40 CFR Part 63, §63.453(l).</p> <p>40 CFR Part 63, §63.964(a)(1)(iii).</p> <p>40 CFR Part 63, §63.964(a)(1)(i)(A).</p>

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
L.7			<p>Follow the repair requirements found in 40 CFR Part 63, §63.964(a)(1)(i)(A), §63.964(a)(1)(v), and §63.964(b)(1) and (2) including:</p> <p>The first effort to repair a defect shall be no later than 5 calendar days after detection,</p> <p>Repair shall be completed as soon as practicable but no later than 15 calendar days after detection unless the repair of the defect requires emptying or temporary removal from service of the collection system.</p> <p>If repair of the defect requires emptying or temporary removal of the condensate collection system from service, the defect will be repaired the next time the process equipment generating the condensate stops operation. The repair of the defect will be completed before the process resumes operation.</p>	40 CFR Part 63, §63.964(b)(1) and (2).
L.8			<p>The control device shall be operated in a manner consistent with the procedures/values established under this 40 CFR 63 Subpart S except as provided in 40 CFR 63.453(p), 40 CFR 63.443(e), or 40 CFR 63.446(g). Daily monitoring requirements to demonstrate compliance apply steam stripper requirements of 40 CFR 63.453(h) to the liquid stream UNOX DCD operated by LFPP. Sample DCD inlet and outlet streams daily and analyzed for methanol. Report daily and 30-day rolling average results in lb/TODP. 30-day rolling average results must meet applicable limits in sections L.1 and L.4.</p>	40 CFR Part 63, §63.446(e)(4) and §63.453(h).
L.9		SSM Plan	LFPP shall comply with the SSM plan requirements identified in section J of this AOP.	40 CFR Part 63, §63.6(e)(3)(i) and §63.866(a).

**M. HIGH VOLUME LOW CONCENTRATION (HVLC) SYSTEM**

(NESHAP Subpart S)

Comply with the requirement of 40 CFR 443(a)(1)(ii) through (a)(1)(v) as expeditiously as practicable, but not later than April 17, 2006. [40 CFR 63.440(d)(1)].

Applies to the following systems:

- Pulp washing,
- Knotter system,
- Screen system.

(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.)

LFPP submitted information to satisfy "clean condensate alternative" (CCA) criteria in 40 CFR 63.447 of Subpart S which allows use of the CCA to meet HVLC collection and treatment requirements. Ecology issued Order 2737-AQ05 which mandates enforceable conditions to assure applicable HAPS collection requirements are met using the CCA.

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
M.1	HAPs	Collection and Treatment	Collect condensates from the following sources (CCA units) and route them via hard piping to the Dedicated Control Device (DCD) for treatment: #9 evaporator - "clean" side of the surface condenser, #10 evaporator - "clean" side of the surface condenser, and #10 evaporator - "clean" side of the 7 <sup>th</sup> effect. For these sources, follow the inspection, repair, and reporting requirements included in §63.443(l),	40 CFR Part 63, §63.447 and Order 2737-AQ05.
M.2		Collect an additional 1.0 lb/ODTP of HAPs as measured at the inlet to the DCD. Compliance shall be demonstrated by collecting ≥8.2 lb/ODTP of HAPs based on a 30-day rolling average (this includes the ≥7.2 lb/ODTP amount required to meet the §63.446(c) collection requirements). Monitoring and reporting requirements are the same as those to meet §63.446(c) requirements.		
M.3		Destroy an additional 1.0 lb/ODTP of HAPs as measured at the outlet of the DCD. Compliance shall be demonstrated by destroying ≥7.6 lb/ODTP of HAPs based on a 30-day rolling average (this includes the ≥6.6 lb/ODTP amount required to meet the §63.446(e) treatment requirements). Monitoring and reporting requirements are the same as those to meet §63.446(e) requirements.		

	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring &amp; Reporting</b>	<b>Applicable Requirements</b>
M.4			The 30-day average operating rate for the sum of washer line #s 5, 6, and 7 operating rates shall be $\leq 270$ ODTP/D. Report daily sums and 30-day rolling average of daily sums in the monthly report.	
M.5		SSM Plan	LFPP shall include CCA units in the SSM plan and operate CCA units in compliance with general requirements in §63.6(e).	

## FACILITY-WIDE GENERAL REQUIREMENTS

[WAC 173-401-600]

These generally applicable requirements apply facility-wide, including insignificant emission units or activities. Insignificant emission units or activities, however, are not subject to monitoring, testing, recordkeeping, reporting, or compliance certification requirements.

1. Varying Emission Rate. 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. Detrimental Emissions. 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. Concealment and Masking. 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. Fugitive Emissions. 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 as necessary to control fugitive dust or the timely removal or coverage of material piles. [WAC 173-400-040(3)(a)]
5. Fugitive Dust. 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 as necessary to control fugitive dust or the timely removal or coverage of material piles. [WAC 173-400-040(8)(a)]
6. Particulate Matter Deposition. 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. Odors. 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. Opacity. 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. Complaints. 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. [WAC 173-401-630]
10. Sulfur Dioxide Emissions. 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. reserved
12. Good Air Pollution Control Practice. 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 which 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); additionally for NSPS sources 40 CFR 60.11(d) and 40 CFR 63.6(e)(1)]
13. Chemical Accidental Release Program. The Permittee does not meet the applicability standards for Accidental Release Prevention Provisions under 40 CFR Part 68. Permittee has a general duty to: identify hazards which may result from accidental releases using appropriate hazard assessment techniques; to design and maintain a safe facility taking such steps as are necessary to prevent releases; and to minimize the consequences of accidental releases that do occur. [Clean Air Act §112(r)(1)]
14. Stratospheric Ozone Protection.
  - a. The permittee shall comply with applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditions (MVACs) in Subpart B:
    - i. Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to § 82.156.
    - ii. Equipment used during the maintenance, service, repair or disposal must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
    - iii. Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technical certification program pursuant to § 82.161.
    - iv. 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.)
    - v. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
    - vi. Owners/operators of appliances normally containing 50 or more pounds of refrigerant purchased and added to such appliances pursuant to § 82.166.
  - b. Permittee may switch from any ozone-depleting substance to any alternative approved pursuant to the Significant New Alternatives Program (SANP), 40 CFR Part 82, Subpart G, without a permit revision but shall not switch to a substitute listed as unacceptable pursuant to such program. [40 CFR 82.174]
  - c. Any certified technician employed by Permittee shall keep a copy of their certification at their place of employment. [40 CFR 82.166(1)]
  - d. The Permittee shall not willfully release any regulated refrigerant and shall use refrigerant extraction equipment to recover regulated refrigerant that would otherwise be released into the atmosphere. [RCW 7070.94.970(2), 970(4)] State Only
  - e. Compliance with this term and condition will be demonstrated by using a certified contractor or employee.  
[40 CFR Section 82 and RCW 70.94.970 (the RCW is a **state-only** requirement)]
15. Insignificant Emission Units. The generally applicable requirements that apply to IEUs are, WAC 173-405-040(5), WAC 173-400-040, WAC 173-400-050(1) & (3), and WAC 173-400-060. [WAC 173-401-530(2)(b)]

16. 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)]
17. Used Oil Burning. The following condition is **state-only** and is not federally enforceable under the Clean Air Act. The permittee can burn used oil only if it meets the standards prescribed in RCW 70.94.610. The requirements of RCW 70.94.610(1) do not apply to used oil burned in emission units regulated under this AOP, because such emission units are "facilities permitted by the department" per RCW 70.94.610(2). [RCW 70.94.610]
18. Asbestos. The permittee shall comply with the applicable requirements of 40 CFR Part 61, subpart M (asbestos NESHAP) and WAC 173-400-075 when conducting any renovation or demolition at the facility. [WAC 173-400-075]

## MONITORING, RECORDKEEPING & REPORTING

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

19. 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]
20. 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]
21. Violation Duration. A violation of an emission limit is presumed to commence at the time of the testing, recordkeeping or monitoring indicating noncompliance, and to continue until the time of retesting, recordkeeping or monitoring that indicates compliance. This presumption may be defeated if credible evidence shows that the violation was of longer duration, that there were intervening days during which no violation occurred or that the violation was not continuing in nature. [42 U.S.C. 7413(e)(2)]. The permittee may conduct monitoring or testing more frequently than required by this permit.
22. Insignificant Emission Units. The permittee is not subject to any testing, monitoring, reporting, or recordkeeping for the insignificant emission units or activities listed. [WAC 173-401-530(2)(c)]

### Recordkeeping Requirements

23. Monitoring Records. 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 were performed;
  - c. The company or entity that performed the analysis;
  - d. The analytical techniques or methods used;
  - e. The results of such analysis; and
  - f. The operating conditions existing at the time of sampling or measurement.[WAC 173-401-615(2)(a); WAC 173-400-105; additionally for NSPS sources 40 CFR 60.49b(f)]

24. Inspection Checklists. Where the permittee is required to use and maintain an inspection checklist, the checklist must contain, at a minimum, the following information:
  - a. The person conducting the inspection;
  - b. The date/time of the inspection;
  - c. Location of the inspection;
  - d. The observations made during the inspection;
  - e. Corrective actions taken if any; and
  - f. The date and time corrective action was initiated and completed.
 [WAC 173-401-615(1)(b)]
  
25. Changes at Source. 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).]
  
26. Records Retention. 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 data from continuous monitoring instrumentation, and copies of all reports required by this permit. [WAC 173-401-615(2)(c)]
 

Note: For NSPS sources there is also a 2 year record retention requirement. [40 CFR 60.49b(o)]
  
27. Recording Permit Deviations. 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]

28. Unit Reporting Requirements. In addition to any emission unit specific reporting requirements identified below, emission unit specific reporting requirements are identified in specific emission unit conditions of this permit.
  
29. Production Reporting. Report within 15 days of the end of each month average daily production of air-dried unbleached pulp. [WAC 173-405-072(4)]
  
30. Monthly Reports. 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)]
  
31. Emission Inventory. The permittee shall submit an inventory of emissions, as specified in WAC 173-405-078, from the source each year no later than 105 days after the end of the calendar year. The permittee shall maintain records of information necessary to substantiate any reported emissions. [WAC 173-405-078 and WAC 173-400-105(1)]
  
32. Permit Deviations/Excess Emissions. The permittee shall promptly submit a report of any deviations from permit conditions.
  - a. For purposes of this permit, submitting a report “promptly” means the following: (1) 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; (2) 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. The permittee may include in its reports demonstrations that excess emissions were unavoidable, consistent with the requirements of WAC 173-400-107. [WAC 173-401-615(3)(b) and WAC 173-400-107]

33. Certifications. Any application form, report, or compliance certification submitted pursuant to Chapter 173-401 WAC shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under Chapter 173-401 WAC 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]
34. Report Address. All reports, renewal applications, and compliance certifications required by this permit shall be submitted to:

Department of Ecology  
Industrial Section  
P.O. Box 47706  
Olympia, WA 98504-7706

Compliance certification shall also be submitted to:

Environmental Protection Agency  
Air Operating Permits, Region 10  
1200 Sixth Avenue, OAQ-108  
Seattle, WA 98101-1128

35. Compliance Requirements/Certification.
- a. The permittee shall continue to comply with applicable requirements with which the permittee is in compliance;
  - b. The permittee shall meet applicable requirements that will become effective during the permit period on a timely basis;
  - c. The permittee shall submit a report to the Department of Ecology and to Region 10 of EPA 12 months after the effective date of this permit and annually thereafter, within 45 days after the close of the year the certification covers, certifying compliance with the terms and conditions contained in this permit. The certification shall describe the following:
    - i. the permit term or condition that is the basis of the certification;
    - ii. the compliance status;
    - iii. whether compliance was continuous or intermittent; and
    - iv. the methods used for determining compliance, currently and over the reporting period consistent with required monitoring.

Note: A report filed in a format approved by Ecology is deemed to meet the requirements of this condition.
  - d. The permittee is not required to certify compliance for insignificant emission units or activities. [WAC 173-401-530(2)(d), WAC 173-401-510(2)(h)(iii), and WAC 173-401-630 (5)]

#### **STANDARD TERMS & CONDITIONS**

36. Duty to Comply. The permittee must comply with all conditions of this chapter 401 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)]
37. 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)]
38. 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)]

39. Property Rights. This permit does not convey any property rights of any sort, or any exclusive privilege. [WAC 173-401-620(2)(d)]
40. 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)]
41. Permit Fees. The permittee shall pay fees as a condition of this permit in accordance with Ecology'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)]
42. 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)]
43. Severability Clause. 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)]
44. Permit Appeals. The permittee may appeal this permit or any conditions in it 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)]
45. Permit Continuation. 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. [WAC 173-401-620(2)(j)]
46. Application and Issuance of a Renewal Permit. The permittee shall submit a complete permit renewal application to Ecology no later than six months, but no earlier than 18 months, prior to the expiration date of the existing permit. Permits being renewed are subject to the same procedural requirements, including those for public participation, affected state and EPA review that apply to the initial permit. [WAC 173-401-710(1)&(2)]
47. Inspection and Entry. The permittee shall allow the permitting authority or an authorized representative to perform the following upon presentation of credentials and other documents as may be required by law:
  - a. Enter upon the permittee's premises where a chapter 401 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
  - d. 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 applicable requirements.[WAC 173-401-630(2)]

48. Federally Enforceable Requirements. All terms and conditions of this permit, including any provisions designed to limit potential to emit, are enforceable by EPA and citizens under the FCAA, unless they are specifically designated as not federally enforceable. [WAC 173-401-625]
49. Reopening for Cause. This permit shall be reopened and revised under any of the following circumstances:
- Additional applicable requirements become applicable when the remaining permit term is greater than three years. Such reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to WAC 173-401-620(2)(j).
  - Additional requirements (including excess emissions requirements) become applicable under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated in the permit.
  - Ecology determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
  - Ecology determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- Procedures to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. [WAC 173-401-730]
50. Tampering and False Statements. No person shall make any false material statement, representation or certification in any form, notice or report required in this permit. No person shall render inaccurate any monitoring device or method required under this permit. [WAC 173-400-105(7) and (8) and 40 CFR 70.11(a)]
51. Providing Additional Data. For Ecology to evaluate a plant's emissions or emission control program, the permittee shall furnish other data requested by Ecology. [WAC 173-405-072(5)]

#### **MISCELLANEOUS REQUIREMENTS**

52. The department may approve alternate compliance test methods that are of equivalent stringency for any air pollutant. [PSD 01-03 and Order 3462-AQ07]
53. Compliance monitoring frequency may be adjusted by Ecology depending on compliance history. [Order 3462-AQ07]
54. Sampling ports and platforms must be provided for each affected source after the final pollution control device. The ports must meet the requirements of Reference Method 1 of 40 CFR, Part 60, Appendix A. Other arrangements may be acceptable if approved by the department prior to installation. Adequate permanent and safe access to the test ports must be provided. [Order 3462-AQ07]
55. Ecology may require the continuous emission monitoring quality assurance plans submitted to Ecology on July 26, 1991 and December 22, 1995 to be periodically updated. The updates shall satisfy 40 CFR, Part 60, Appendix F. [PSD 01-03 and Order 3462-AQ07]
56. Data required to demonstrate compliance with emission limits in Appendix A shall be reported in written form to the Washington Department of Ecology Industrial Section or its authorized representative at least monthly (unless a different testing and reporting schedule has been approved by Ecology). The report shall be submitted in conformance with the time requirements included in WAC 173-405, but in no case later than thirty days after the end of the calendar

month being reported. The report shall be in a format approved by Ecology. Report contents shall include but not be limited to the following:

- a. The average daily production of machine dried unbleached pulp.
- b. Process or control equipment operating parameters.
- c. The information specified for individual limits, in the units of the limit, for each pollutant monitored.
- d. The duration and nature of any monitor down-time.
- e. Results of any monitor audits or accuracy checks.
- f. Results of any stack tests using approved Ecology or EPA test methods with acceptable QA/QC.

For each occurrence of monitored emissions or process parameters in excess of the standard the report shall include the following:

- g. The time of the occurrence.
- h. Magnitude of the emission or process parameters excess.
- i. The duration of the excess.
- j. The probable cause.
- k. Any corrective actions taken or planned.
- l. Any other agency contacted.
- m. Signature of responsible person.

[PSD 01-03 and Order 3462-AQ07]

57. As of March 1994, LFPP shall no longer use elemental chlorine as a bleaching agent in Bleach Plant Nos. 1 and 2. [Order 3462-AQ07]
58. Operating and maintenance manuals for all equipment that has the potential to affect emissions to the atmosphere shall be developed and followed. Copies of the manuals shall be available to the department. Emissions that result from a failure to follow the requirements of the manuals may be considered proof that the equipment was not properly operated and maintained. [PSD 01-03 and Order 3462-AQ07]
59. Any activity that is undertaken by LFPP or others, in a manner which is inconsistent with the application and this determination, shall be subject to Ecology enforcement under applicable regulations. Nothing in this determination shall be construed so as to relieve LFPP of its obligations under any state, local, or federal laws or regulations. [PSD 01-03]
60. Within six months of PSD issuance, LFPP shall submit to Ecology a monitoring plan for PM<sub>10</sub>. As a minimum, the monitoring plan must satisfy the guidelines in the latest edition of Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD) (U.S. Environmental Protection Agency, Research Triangle Park, EPA Publication No. EPA-450/4-87-007, May 1987 or latest revision). [PSD 01-03]

### **PERMIT SHIELD & INAPPLICABLE REQUIREMENTS**

Pursuant to WAC 173-401-640(1), compliance with the terms and conditions of this permit shall be deemed compliance with the applicable requirements identified in this permit, as of the date of permit issuance. This permit shield does not exempt the permittee from requirements 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 below do not apply to the facility, as of the date of permit issuance, for the reasons specified.

CITE	BRIEF DESCRIPTION	REASON
WAC 173-400-040(1)	No visible emissions over 20% opacity for 3 minutes in any one hour, with 4 exceptions.	Opacity standards in the Kraft Pulping Mill regulations (WAC 173-405) take precedence over the general emission standards of WAC 173-400. WAC 173-405-040.
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.	No emissions units at the facility have been identified as a significant contributor to nonattainment.
WAC 173-400-040(6)	General limit of 1,000 ppm <sub>dv</sub> SO <sub>2</sub> .	SO <sub>2</sub> standards for emission units at kraft pulping mills in the Kraft Pulping Mill regulations (WAC 173-405) take precedence over the general emission standards of WAC 173-400. WAC 173-405-040.
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.	Facility not located near a PM-10 nonattainment area.
WAC 173-400-050(1)	No particulate emissions in excess of 0.1 grain/dscf from combustion units, except no particulate emissions in excess of 0.2 grain/dscf from units combusting wood derived fuels for production of steam.	Particulate standards for combustion sources in the Kraft Pulping Mill regulations (WAC 173-405) take precedence over the general emission standards of WAC 173-400. WAC 173-405-040.
WAC 173-400-060	No particulate emissions in excess of 0.1 grain/dscf in general process units.	Inapplicable for smelt dissolving tanks #15, #18, #19. & #20. Particulate standards in the Kraft Pulping Mill regulations (WAC 173-405) take precedence over the general emission standards of WAC 173-400. WAC 173-405-040.
WAC 173-400-070(2)(a)	Hog fuel boilers must meet requirements of WAC 173-400-040 & -050(1), with exceptions.	Specific emission standards for combustion sources in the Kraft Pulping Mill regulations (WAC 173-405) take precedence over the general emission standards of WAC 173-400. WAC 173-405-040.
WAC 173-400-100	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.

<b>CITE</b>	<b>BRIEF DESCRIPTION</b>	<b>REASON</b>
WAC 173-400-105(5)(a)	Continuous opacity & SO <sub>2</sub> monitoring & recording required for fossil fuel-fired steam generators that are not subject to an NSPS, except where capacity is <250 million BTU/hr heat input or where there is an annual avg. capacity factor of ≥30%.	Inapplicable to power boiler #20 Power Boiler which is subject to NSPS requirement. WAC 173-400-105(g)(i).
WAC 173-400-105(5)(d)	Continuous opacity monitoring & recording required for wood residue fuel-fired steam generators w/ capacity of ≥100 million BTU/hr heat input that are not subject to an NSPS.	Inapplicable to power boiler #20 Power Boiler which is subject to NSPS requirement. WAC 173-400-105(g)(i).
WAC 173-400-105(6)	Submittal required for raw material or fuel change resulting in SO <sub>2</sub> increase ≥40 T/yr. 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.	Facility has not been identified as a source impacting a Class I area.
WAC 173-405-040(7) [STATE ONLY, NOT FEDERALLY ENFORCEABLE]	Continuously employ best practicable operation and maintenance procedures for recovery furnaces or lime kilns with an alternative opacity limit.	Facility does not have any alternative opacity limits for recovery furnace or lime kiln.
WAC 173-405-077	Provisions of WAC 173-400-105(5) (Report of startup, shutdown, etc.) apply.	Old WAC 173-400-105(5) has been deleted from state regulations and the SIP.
Chapter 173-410 WAC	Sulfite pulping mill regulations.	Inapplicable to mill with the exception of the NSSC facility.
WAC 173-410-040(1)(a)	SO <sub>2</sub> emission limits for incineration of spent sulfite liquor.	Spent sulfite liquor not incinerated in NSSC system.
WAC 173-410-040(1)(e)	SO <sub>2</sub> emission limits for sulfite recovery systems.	Chemical recovery not conducted in NSSC system.
WAC 173-410-040(2)(a)&(b)	Particulate emission limits for sulfite recovery systems.	Chemical recovery not conducted in NSSC system.
WAC 173-410-040(2)(c)(i)&(ii)	Particulate emission limits for units combusting wood for steam at sulfite mills.	Steam production not conducted in NSSC system.
WAC 173-410-040(5)	TRS emission limits for sulfite recovery systems.	Chemical recovery not conducted in NSSC system.
WAC 173-410-067	Provisions of WAC 173-400-105(5) (Report of startup, shutdown, etc.) apply.	Old WAC 173-400-105(5) has been deleted from state regulations and the SIP.

<b>CITE</b>	<b>BRIEF DESCRIPTION</b>	<b>REASON</b>
Chapter 173-433 WAC	Solid fuel burning device regulations. Applies to wood stoves and fireplaces.	Facility does not operate such devices.
Chapter 173-435 WAC	Air emergency episode plan including source emission reduction plan (SERP) requirements.	Inapplicable except for 040, 050(2), and 060(5).
Chapters 173-470, 474, 475, 480, 481 WAC	Ambient air quality standards.	WAC 173-401-200(4)(xii) states that AAQS apply to only temporary sources.
Chapter 173-490 WAC	Emission standards and controls for sources of VOCs.	Applies only to facility types specified in the regulation; pulp and paper mills are not specified.
40 CFR Part 60 subpart Da	NSPS for fossil fuel fired steam generators constructed after September 18, 1978.	Subpart GG – Stationary Gas Turbines NSPS - applies to the cogen and takes precedence.
40 CFR Part 60 subpart Db	NSPS for steam generators constructed after June 19, 1984 with a heat input rating >100 mmBtu/hr.	Inapplicable to power boilers #12, #13, #16, #17, & #20; and recovery furnaces #15, #18, & #19 which were constructed prior to the applicability date. Since then, there was no occurrence of a physical change or change in method of operation which increased pollutants to which a standard applied.
40 CFR Part 60 subpart Dc	NSPS for steam generators constructed after June 9, 1989, with design heat input rating of >10 mmBtu/hr and <100 mmBtu/hr.	Facility has no units this size.
40 CFR 60.43(a)(2)	SO <sub>2</sub> emission limits for subpart D facilities that combust solid fossil fuel, alone or with wood residue fuel.	Facility does not combust solid fossil fuel.
40 CFR 60.44(a)(3)	NO <sub>x</sub> emission limits for to subpart D facilities that combust solid fossil fuel, alone or with wood residue fuel.	Facility does not combust solid fossil fuel.
40 CFR 60.44(a)(4)&(5)	NO <sub>x</sub> emission limits for to subpart D facilities that combust lignite, alone or with wood residue fuel.	Facility does not combust lignite.
40 CFR 60.284(b)(1)	Applies to units burning emissions from digester systems, brownstock washer systems, multiple-effect evaporator systems, or condensate stripper systems in an incinerator.	Facility does not burn in an incinerator.
40 CFR 60.284(b)(2)	Requirement for scrubber monitoring at NSPS lime kiln.	Inapplicable at lime kiln 5 because a scrubber is not used.

<b>CITE</b>	<b>BRIEF DESCRIPTION</b>	<b>REASON</b>
40 CFR 60 Subpart K	NSPS for petroleum storage vessels constructed or modified after 6/11/73 and prior to 5/19/78.	Products stored by LFPP do not contain petroleum products as defined in Section 60.111a(b).
40 CFR 60 Subpart Ka	NSPS for petroleum storage vessels constructed or modified after 5/18/78 and prior to 7/23/84.	Products stored by LFPP do not contain petroleum products as defined in Section 60.111a(b).
40 CFR 60 Subpart Kb	NSPS for petroleum storage vessels constructed or modified after 7/23/84.	Product vapor pressure below volatile organic liquid threshold.
40 CFR 72, 73, 74, 75, 76, 77, and 78	Acid Rain Program	Inapplicable to Cogen 23 per EPA letter dated October 9, 1998.

## APPENDIX A - MONITORING AND CALCULATION SPECIFICATIONS

### APA.1: OPERATING LIMIT CALCULATIONS

Compliance with the operating limit for each emission unit shall be made by recording and reporting the quantities from number (3), below:

- (1) Record the number of hours of operation of the emissions unit since the last report.
- (2) Record the total production through the emissions unit since the last report.
- (3) Average production rates:
  - (a) For Power Boilers and Cogen 23, divide the quantity from (2) by the quantity from (1) to get the average hourly production.
  - (b) For Recovery Furnaces, Smelt Dissolving Tanks, and Lime Kilns, divide the quantity from (2) by the quantity from (1), and multiply by twenty-four to get the average (24-hr) daily production.
- (4) Total primary production is the total paper and board saleable product from the paper machines. All trim and cull go back into pulp furnish to the paper machines.
  - (a) Record daily total primary production.
  - (b) Total for the days since end of the last reporting period.
  - (c) Add to annual total in last report.
  - (d) Subtract the amount of the corresponding period from the immediately previous year.

[PSD 01-03]

### APA.2: MONITORING TERMINOLOGY AND GENERAL SOURCE TEST REQUIREMENTS

Test method abbreviations:

RM 5: Determination of Particulate Emissions from Stationary Sources

Reference Method 5 of 40 CFR, Part 60, Appendix A, or an alternative approved by Ecology, under the assumption that all of the particulate collected is PM<sub>10</sub>. [PSD 01-03].

RM 6C: Determination of Sulfur Dioxide Emissions from Stationary Sources

Reference Method 6C of 40 CFR, Part 60, Appendix A, or an alternative approved by Ecology. For SO<sub>2</sub> source tests conducted on a stack with a continuous TRS monitor, the test may be conducted using LFPP Source Test Method 201, a modification of Method 6C which uses the TRS monitor in an SO<sub>2</sub> monitoring mode. LFPP Source Test Method No. 311 which uses a certified portable SO<sub>2</sub> emission monitor may be used as an approved test procedure. [PSD 01-03]

RM 7: Determination of Nitrogen Oxide Emissions from Stationary Sources

Reference Method 7 of 40 CFR, Part 60, Appendix A, or an alternative approved by Ecology. LFPP Source Test Method No. 311 which uses a certified portable SO<sub>2</sub> emission monitor may be used as an approved test procedure. [PSD 01-03]

RM 9: Visual Determination of the Opacity of Emissions from Stationary Sources

Reference Method 9 of 40 CFR, Part 60, Appendix A; or Ecology Method 9B as found in the 'Source Test Manual - Procedures for Compliance Testing', 1983, or an alternative approved by Ecology. [Order 3462-AQ07]

RM 10: Determination of Carbon Monoxide Emissions from Stationary Sources

Reference Method 10 of 40 CFR, Part 60, Appendix A, or an alternative approved by Ecology. LFPP Source Test Method No. 311 which uses a certified portable SO<sub>2</sub> emission monitor may be used as an approved test procedure. [PSD 01-03]

RM 16: Semicontinuous Determination of Sulfur Emissions from Stationary Sources

Reference Method 16 of 40 CFR, Part 60, Appendix A, and measured as H<sub>2</sub>S, or an alternative approved by Ecology. LFPP Source Test Method 202, which captures gas in a Tedlar bag for analysis, may be used to test smelt dissolving tank TRS emissions. [PSD 01-03]

RM 25A: Determination of Total Gaseous Organic Concentration using Flame Ionization analyzer

Reference Method 25A of 40 CFR, Part 60, Appendix A, and measured as C, or an alternative approved by Ecology. [PSD 01-03]

PS 1: Performance Specification 1 of 40 CFR, Part 60, Appendix B, "Specification and Test Procedures for Opacity Continuous Emissions Monitoring Systems in Stationary Sources." [Order 3462-AQ07]

PS 2: Performance Specification 2 of 40 CFR, Part 60, Appendix B, "Specification and Test Procedures for SO<sub>2</sub> and NO<sub>x</sub> Continuous Emissions Monitoring Systems in Stationary Sources." [PSD 01-03]

PS 3: Performance Specification 3 of 40 CFR, Part 60, Appendix F and Appendix B, "Specification and Test Procedures for O<sub>2</sub> and CO<sub>2</sub> Continuous Emissions Monitoring Systems in Stationary Sources." [Order 3462-AQ07]

PS 4: Performance Specification 4 of 40 CFR, Part 60, Appendix B, "Specification and Test Procedures for Carbon Monoxide Continuous Emissions Monitoring Systems in Stationary Sources." [PSD 01-03]

PS 5: Performance Specification 5 of 40 CFR, Part 60, Appendix B, "Specification and Test Procedures for TRS Continuous Emissions Monitoring Systems in Stationary Sources." [PSD 01-03]

Test and reporting frequency abbreviations: [PSD 01-03]

A/M: means source test is to be performed annually. If any single source exceeds 75% of the limitation, source testing shall be performed monthly (see qualification, below) until 6 consecutive month's tests are below 75% of the limitation, at which time testing may return to an annual schedule.

M/Q: means source test is to be performed monthly (see qualification, below). Source testing may be reduced to quarterly (see qualification, below) if 6 consecutive month's tests are below 75% of the limitation. If any single source exceeds 75% of the limitation, source testing shall revert to monthly until 6 consecutive month's tests are below 75% of the limitation.

T/M: means source test is to be performed triennially. If any single source test exceeds 75% of the limitation, source testing shall be performed monthly (see qualification, below) until 6 consecutive month's tests are below 75% of the limitation, after which source testing may return to triennially.

Qualification:

"Monthly" test cycle: A source test must be performed in any month wherein the unit was operated more than 216 hours. A source test must be performed prior to the emissions unit having been operated a total of 720 hours since the end of the month of the last source test.

"Quarterly" test cycle: A source test must be performed in any quarter wherein the unit was operated more than 648 hours. A source test must be performed prior to the emissions unit having been operated a total of 2,160 hours since the end of the quarter of the last source test.

"Annual" test cycle: A source test must be performed in any calendar year wherein the unit was operated more than 2,628 hours. A source test must be performed prior to the emissions unit having been operated a total of 8,640 hours since the end of the calendar year of the last source test.

A: relative to reporting frequency, means annually

C: means testing is continuous by virtue of the CEM.

M: relative to reporting frequency, means monthly.

Q: relative to reporting frequency, means quarterly.

T: relative to reporting frequency, means triennially.

General source test requirements - compliance determination using source testing shall be as follows: [PSD 01-03]

During all emissions testing (source testing) runs, the concurrent process rate of the emission unit shall be recorded in units of measurement characteristic of the emission unit, and submitted with the source test data.

An emissions unit with one stack: The arithmetic mean of three or more runs of at least one hour each in duration. NOTE: Compliance may be demonstrated for NO<sub>x</sub> and SO<sub>2</sub> emission concentration limit on Lime Kiln 5 and for the CO emission concentration limit on Power Boiler 20 by applying this three-run protocol on one of their two respective stacks.

An emissions unit with two stacks: The arithmetic mean of runs made on both stacks. Two or more runs of at least one hour each in duration must be made on each stack.

Any test runs LFPP believes to be invalid due to procedural error may be dropped from the arithmetic mean calculation. Results of such "invalid" runs are to be included in the monthly report with an explanation of the "invalid" determination.

### APA.3: RF, SDT, & LK MASS RATE LIMIT CALCULATIONS

**Compliance with the mass rate limit** for the recovery furnaces, smelt dissolving tanks, and lime kilns shall be monitored as follows: [PSD 01-03]

(1) **Emission Factor:** Pounds pollutant per ton process quantity for each emissions unit.

(a) **Using source test data:** Use source test data for emissions units and pollutants not having CEMS. From the most recent source test results, convert the emission concentration, corresponding stack gas flow rate and emission unit process rate for each run to the equivalent pounds of pollutant emission per process unit of measurement, such as lbs. SO<sub>2</sub>/lb. black liquor solids.

Example 1:  $\{[source\ test\ ppmv\ SO_2] \times (10^{-6}) \times [source\ test\ dscfm] \times (60\ min./hr.) \times (64\ lb.\ SO_2)\}$

$\div [(385\ scf\ SO_2) \times (source\ test\ tons\ BLS\ /hr.)] = lbs.\ SO_2/TBLS$

The same equation may be used for CO, NO<sub>x</sub>, H<sub>2</sub>S/TRS, and VOCs by making the following respective substitutions for the term "64 lb. SO<sub>2</sub>:"

28 lb. CO, 46 lb. NO<sub>x</sub>, 34 lb. H<sub>2</sub>S/TRS, and 12 lb. VOCs as carbon.

Example 2:  $\{[source\ test\ gr/dscf\ PM_{10}] \times (1b./7,000\ gr) \times [source\ test\ dscfm] \times (60\ min./hr.) \div (source\ test\ tons\ BLS\ /hr.)\} = lbs.\ PM_{10}/TBLS$

Example 3, Dry kilns:  $\{[source\ test\ ppmv\ SO_2] \times (10^{-6}) \times [source\ test\ dscfm] \times (60\ min./hr.) \times (64\ lb.\ SO_2)\}$

$\div [(385\ scf\ SO_2) \times (source\ test\ tons\ CaO\ /hr.)] = lbs.\ SO_2/ton\ CaO$

The equation may be used for CO, NO<sub>x</sub>, and H<sub>2</sub>S/TRS by making the following respective substitutions for the term "64 lb. SO<sub>2</sub>:"

28 lb. CO, 46 lb. NO<sub>x</sub>, and 34 lb. H<sub>2</sub>S/TRS

Example 4, Dry kilns:  $\{[source\ test\ gr/dscf\ PM_{10}] \times (1b./7,000\ gr) \times [source\ test\ dscfm] \times (60\ min./hr.) \div (source\ test\ tons\ CaO/hr.)\} = lbs.\ PM_{10}/ton\ CaO$

Calculate the arithmetic mean of the source test runs for each pollutant and each emission unit as described in ApA.2 of this AOP.

(b) **Using CEMS data:** Use CEMS data for applicable emissions units and pollutants.

(i) Determine the average daily process throughput for each emissions unit: Recovery furnaces – tons black liquor solids per hour (TBLS/hr.). Lime kilns – tons calcium oxide per hour (CaO/hr.).

(ii) From each average daily process throughput, calculate the related stack exhaust flow. Use the equations relating process throughput to stack exhaust flow currently approved by Ecology (see ApA.6 of this AOP).

(iii) Determine the daily average emission concentration for each emissions unit and pollutant having a related CEMS.

(iv) Calculate the emissions factors for the reporting period. The examples in (1)(a), above may be used by substituting the corresponding quantities from (1)(b)(i), (ii), and (iii) for the "source test" quantities.

(2) **Tons per year:**

(a) Amount processed through the emissions unit since the closing date of the last report.

(i) For recovery furnaces and smelt dissolving tanks: Determine the total tons BLS processed through the emission unit since the closing date of the last report.

(ii) For the lime kilns: Determine the total tons CaO processed through the emission unit since the closing date of the last report.

(b) For each pollutant and emissions unit, multiply the emission factor from (1) by the quantity processed [(2)(a)(i) for the recovery furnaces and smelt dissolving tanks or (2)(a)(ii) for the lime kilns], and divide by 2,000 lbs./ton. The result should be the tons of each pollutant that have been emitted from each emissions unit since the closing date of the last report. Add up the analogous quantities calculated for sufficient contiguous prior periods to total one year's worth of pollutant emissions for each emissions unit. Each such quantity must be less than the corresponding limit (TPY) in this AOP to demonstrate compliance.

#### APA.4: PB & COGEN MASS RATE LIMIT CALCULATIONS

**Compliance with mass rate limits** for the power boilers and Cogen 23: [PSD 01-03]

- (1) **Emission Factor**, Pounds pollutant per ton process quantity for each emissions unit: Convert each emission concentration, corresponding stack gas flow rate, and power boiler and Cogen fuel application rate to the equivalent pounds of pollutant emission per million Btu (lb./mmBtu). In the examples below,
- If continuous emissions monitoring (CEM) has been installed: Apply the examples in this appendix (ApA.4), below. Pollutant "*concentration*" is the average daily concentration. "*Exhaust gas flow*" may be calculated from the appropriate "F-factor(s)" from 40 CFR Part 60, Appendix A, Method 19 if not otherwise known. "*Fuel applied*" is to be determined from the average daily fuel composition. Exclude boiler and Cogen downtime from all calculations.
  - If CEM data are not available, the pollutant *concentration*, *exhaust gas flow*, and *fuel applied* are from the most recent source test run results. Where source test data are used, apply the examples in this table note, below, to each of the source test runs for each pollutant and each power boiler and Cogen 23. Calculate the arithmetic mean as described in ApA.2 of this AOP.
  - For Power Boiler 16 and Cogen 23, calculate SO<sub>2</sub> emissions (lbs. SO<sub>2</sub>/MMBtu) from the purchase records and vendor's reports on fuel sulfur content for the fuel applied during the reporting period.

Example 1:  $\{ [SO_2 \text{ concentration ppmvd}] \times (10^{-6}) \times [exhaust \text{ gas flow dscfm}] \times (60 \text{ min./hr.}) \times (64 \text{ lb. SO}_2)\} \div [(385 \text{ scf SO}_2) \times (fuel \text{ applied mmBtu/hr.})] = \text{lbs. SO}_2/\text{MMBtu}$

The equation may be used for CO and NO<sub>x</sub> by making the following respective substitutions for the term "64 lb. SO<sub>2</sub>:"  
28 lb. CO, and 46 lb. NO<sub>x</sub>.

Example 2:  $\{ [PM_{10} \text{ concentration gr/dscf}] \times (1b./7,000 \text{ gr}) \times [exhaust \text{ gas flow dscfm}] \times (60 \text{ min./hr.}) \div (fuel \text{ applied mmBtu/hr.}) \} = \text{lbs. PM}_{10}/\text{mmBtu}$

(2) **Tons per year:**

- Determine the total fuel applied to each power boiler and Cogen 23 since the closing date of the last report in mmBtu.
- For each pollutant and the Cogen and each power boiler, multiply the respective quantities from (1) and (2)(a), and divide by 2,000 lbs./ton. The result should be the tons of each pollutant emitted from the Cogen and each power boiler since the closing date of the last report. Add this quantity to the analogous quantities calculated for sufficient contiguous prior periods to total one year's worth of emissions for the Cogen and each power boiler. This quantity must be less than the corresponding limit (TPY) in this AOP to demonstrate compliance.

(3) **Cogen daily and hourly mass emission limits:**

- For CO and NO<sub>x</sub>, determine the daily mass emissions from the CEMS and sonic stack flow monitoring system.
- The high range CO monitor shall be used to determine mass emissions during startup and shutdown.
- Find the maximum 24 hour fuel applied to Cogen 23 since the closing date of the last report in mmBtu, excluding startup and shutdown periods.
- For VOC daily mass emissions, multiply the respective quantities from (1) and (3)(c). This quantity must be less than the corresponding limit in this AOP to demonstrate compliance.

## APA.5: PLANT WIDE LIMIT CALCULATIONS

Compliance determination for plant wide limits: [PSD 01-03]

- (1) Report daily Kraft and total machine production in tons. Add sufficient contiguous periods including the current reporting period to give a twelve month total.
- (2) For PM & PM<sub>10</sub>, SO<sub>2</sub>, CO, and NO<sub>x</sub>: For each pollutant, add the emissions calculated for the period since the close of the last report from the recovery furnaces (15, 18, 19, and 22), the smelt dissolving tanks (15, 18, 19, and 22), the lime kilns (1 through 5), the power boilers (12, 13, 16, and 20), and Cogen 23 to the analogous quantities calculated for sufficient contiguous prior periods to total one year's worth of emissions concluding with the close of the current reporting period.
- (3) For VOCs:
  - (a) Determine the total tons of black liquor solids processed through each recovery furnace and all smelt dissolving tanks for the one year period ending with the close of the reporting period.
  - (b) Determine the total tons of CaO produced by each lime kiln for the one year period ending with the close of the reporting period.
  - (c) Determine the average fuel application rate for each power boiler and Cogen 23 (mmBtu/hr.) for the one year period ending with the close of the reporting period. Add them together.
  - (d) Kraft digesters, brownstock washer, and knotter, Primary black liquor oxidizer, Paper machines, and Cooling tower:
    - (i) Abbreviations:
      - B = Batch Kraft digester, MDTP
      - CT = Cooling tower, MDTP
      - K1 = #1 Kamyr digester, MDTP
      - K2 = #2 Kamyr digester, MDTP
      - M&D = Continuous Kraft digester, MDTP
      - OxMDTP = Primary black liquor oxidizer, MDTP
      - PPMP = Primary paper machines, MDTP
    - (ii) Determine the sum of the tons of black liquor solids processed through recovery furnaces 15, 18, and 19 tanks for the one year period ending with the close of the reporting period.
    - (iii) Determine the sum of the tons of black liquor solids processed through recovery furnaces 15, 18, 19, and 22 tanks for the one year period ending with the close of the reporting period.
    - (iv) Divide the number from (ii) by the number from (iii).
    - (v) Determine the production in MDTP from each of K1, K2, B, and M&D tanks for the one year period ending with the close of the reporting period.
    - (vi) Sum K1 + K2 + B + M&D from (v).
    - (vii) Multiply the number from (iv) by the number from (vi) to give OxMDTP for the one year period ending with the close of the reporting period.
    - (viii) Multiply the sum of K1 and K2 from (v) by 0.992 to give the pounds of VOCs for the one year period ending with the close of the reporting period from Kamyr digesters #1 and #2.
    - (ix) Multiply the sum of B and M&D from (v) by 0.96 and add the product of B times 0.136 to give the pounds of VOCs for the one year period ending with the close of the reporting period from the Batch and Continuous Kraft digesters.
    - (x) Multiply OxMDTP from (vii) by 0.355 to give the pounds of VOCs for the one year period ending with the close of the reporting period from the Primary black liquor oxidizer.

- (xi) Multiply the total primary production from (1) by 1.075 to give the pounds of VOCs for the one year period ending with the close of the reporting period from the Primary paper machines and Cooling tower.
- (xii) Sum the quantities from (viii), (ix), (x) and (xi) to give the plant wide pounds of VOCs for the one year period ending with the close of the reporting period.
- (e) Multiply the quantity from (3)(a) by 0.21 to give the pounds of VOCs during the past twelve months from recovery furnaces and smelt dissolving tanks.
- (f) Multiply the quantity from (3)(b) by 0.026 to give the pounds of VOCs during the past twelve months from the lime kilns and related lime recovery equipment.
- (g) Multiply the quantity from (3)(c) by 117.4 to give VOCs from the power boilers and Cogen 23.
- (h) Add the quantities from (3)(d) through (3)(g), and divide the result by 2,000 to give tons per year (TPY) VOCs, plant wide.
- (4) For daily maximum steam production: Divide the daily total steam production by 24, and report the result in units of the limit.

**APA.6: EXHAUST STACK FLOW CORRELATIONS**  
[PSD 01-03]

**Exhaust stack flow correlations:** At least annually, LFPP shall update equations for calculation of gas flow from each recovery furnace and lime kiln exhaust stack. [PSD 01-03: Condition 2]

The equations shall correlate exhaust stack gas flows to process rate from the emissions units. The correlation shall be based on linear regression analysis.

By January 31<sup>st</sup> of each year, LFPP shall submit the updated equations, the data on which they are based, and the regression analyses to Ecology for approval. LFPP may submit proposed updates more frequently at its option. An update for an emissions unit shall have occurred only when new data are submitted.

For emission units operated 6,000 hours or more since the last update, each update shall include at least 12 hours of new data, and drop an equal amount of the oldest data. For emission units operated less than 6,000 hours since the last update, the minimum hours of new data (and dropped oldest data) shall be

$$(\text{Hours of operation since last update}) \times 12 \div 6,545, \text{ rounded to the nearest whole number.}$$

The updated equations shall take effect upon approval from Ecology.

Specific calculations to determine exhaust stack gas flow correlations shall be as follows: [PSD 01-03: Appendix 2]

1. **Recovery Furnaces:** Where exhaust stack flow is not directly measured, for compliance purposed it may be calculated from the following general form.

$$\text{Exhaust stack flow (dscfm @ 8\% O}_2) = a + b \times (\text{BLS production rate, lb./hr.})$$

At the time of issuance of PSD 01-03 and until updated in accordance with procedures in this appendix (ApA.6), the coefficients in the above equation shall be:

$$a = 19,631$$

$$b = 1.3758$$

2. **Lime Kilns:** Exhaust stack flow from lime kilns is the sum of combustion exhaust and carbon dioxide generated by the calcine reaction. Where exhaust stack flow is not directly measured, for compliance purposed it may be calculated from the following general form.

$$\begin{aligned} \text{Combustion exhaust flow (dscfm @ 10\% O}_2\text{)} &= 1.917^* \times (\text{F-factor}^\clubsuit, \text{ dscf/mmBtu}) \\ &\quad \times (\text{lime kiln economy, Btu/ton CaO}) \\ &\quad \times \text{CaO production rate, tons/hr.}) \\ &\quad \div (60 \text{ min./hr.}) \end{aligned}$$

At the time of issuance of PSD 01-03 and until updated in accordance with procedures in this appendix (ApA.6), the coefficients in the above equation shall be:

$$\begin{aligned} \text{F-factor} &= 8,740 \text{ dscf/mmBtu} \\ \text{Lime kiln economy} &= \begin{array}{l} 10 \times 10^6 \text{ Btu/ton CaO for lime kilns \#1 through \#4} \\ 6.5 \times 10^6 \text{ Btu/ton CaO for lime kiln \#5} \end{array} \end{aligned}$$

$$\begin{aligned} \text{Calcine exhaust flow (dscfm @ 10\% O}_2\text{)} &= 1.917^* \times (13,750^\heartsuit \text{ dscf @ 10\% O}_2\text{ per ton CaO}) \\ &\quad \times \text{CaO production rate, tons/hr.}) \\ &\quad \div (60 \text{ min./hr.}) \end{aligned}$$

**Add Combustion exhaust flow and Calcine exhaust flow for total Lime Kiln exhaust flow.**

- ♣ This coefficient adjusts to 10% O<sub>2</sub>.
- ♦ From 40 CFR Part 60, Appendix A, Method 19.
- ♥ Assuming ideal gas behavior, and based on the standard calcine reaction products.

## APPENDIX B - CONTINUOUS MONITORING RECOVERY REQUIREMENTS

1. CMS Data Recovery. State and federal regulations recognize that monitoring data may be lost for legitimate reasons. The permittee may be exempted from monitoring and reporting requirements during periods of monitoring system malfunctions, provided that the permittee shows that the malfunction was unavoidable and is being repaired as expeditiously as practicable. [40 CFR §60.13(e); 40 CFR 63.8(c)(4); WAC 173-400-105(5)(h); WAC 173-405-077]

The permittee shall make every effort to acquire, maintain, and recover valid monitoring data. CMS downtime and resulting monitoring data loss due to malfunctions shall be less than 10% of the monthly unit operating time. An acceptable explanation for the loss of monitoring data must be provided in the monthly report. Periods when CMS data is not recovered due to daily calibration, zero and span checks are not considered nor reported as CMS downtime in the monthly report. Records of daily calibration, zero and span checks shall be kept for a period of five years and made available upon request to Ecology. [WAC 173-401-615(1)(c); WAC 173-401-630(1)]

2. MACT CMS Performance Reports. The permittee shall record and report CMS downtime in the semi-annual MACT report. [40 CFR 63.10(e)]
3. NSPS CMS Performance Reports. The permittee shall record and report CMS downtime in the report to be submitted at least semi-annually. [40 CFR §60.7(c) and (d) (2/12/99)]
4. WA PSD/NSR/SIP CMS Performance Reports. The permittee shall record and report CMS downtime, other than calibration, zero and span checks, in the monthly report. In the case of monitor downtime due to system malfunctions, the report will address whether the malfunction was unavoidable, and repaired as expeditiously as practicable. [WAC 173-400-105(5)(h); WAC 173-405-077; WAC 173-401-615(1)(c); WAC 173-401-630(1)]

## APPENDIX C - EMISSION CONTROL COMPLIANCE DEMONSTRATION PLAN

LFPP maintains an "Emission Control Compliance Demonstration Plan" specifying emission control parameter levels to demonstrate compliance with 40 CFR Part 63 - Subpart MM, 40 CFR Part 64 - CAM, and opacity requirements for several sources. Changes to the plan can be made by submitting revisions along with justification for the revisions as part of a monthly report. The revision submission must include an updated summary table including all current emission control parameter levels in effect after the revision. A revision is accepted and in effect unless Ecology notifies LFPP in writing that the revision is rejected. If a revision is rejected, the emission control parameter level in effect prior to the revision request remains in effect.

The summary table including all current emission control parameter levels in effect at the time of AOP modification is included as follows:

LFPP Emission Control Compliance Demonstration Plan - Parameter Summary Table

PM, PM10, and Opacity Parameters (Order 3462-AQ07):

	Fuel <sup>1</sup>	Loading Rate (TCaO/D)	Pressure Drop (inches H <sub>2</sub> O)	Scrubber Recirculation Flow (gpm)	Make-up Water Flow (gpm)
LK 1	gas	≤140	≥15	≥200	n/a
LK 2	gas	≤140	≥20	≥200	n/a
LK 3	gas	≤240	≥15	≥250	≥60
	oil	≤130	≥26	≥250	≥200

	Fuel <sup>1</sup>	Loading Rate (TCaO/D)	Pressure Drop (inches H <sub>2</sub> O)	Hi Pressure Flow (gpm)	Hi Pressure H <sub>2</sub> O Pressure (psig)
LK 4	gas	≤250	≥10	≥375	≥500
	oil	*	≥20	≥375	≥500

\* [TCaO/D + % oil substitution (heat input basis)] ≤215, and oil substitution ≤50% (heat input basis).

	Pressure Drop (inches H <sub>2</sub> O)	Venturi Scrubber Flow (gpm)	Packed Tower Flow (gpm)
SDT 15 <sup>2</sup>	≥6	≥70	≥70
SDT18 <sup>2</sup>	≥6	≥70	≥70
SDT 19 <sup>2</sup>	≥6	≥80	≥60
SDT 22	≥6	≥80	≥60

	Pressure Drop (inches H <sub>2</sub> O)	Scrubber Flow (gpm)	Normal Condition Wet ESP Total Power (kW)	Field Down Wet ESP Total Power (kW)
PB 12 <sup>3</sup>	>0	≥75	≥35	≥80 <sup>4</sup>
PB 13 <sup>3</sup>	>0	≥75	≥35	≥80 <sup>4</sup>
PB 20 N <sup>3</sup>	>0	≥100	≥50	≥70 <sup>5</sup>
PB 20 S <sup>3</sup>	>0	≥100	≥50	≥70 <sup>5</sup>

- <sup>1</sup> fuel types for this appendix:
  - gas means natural gas
  - oil means oil including reprocessed fuel oil (RFO).
- <sup>2</sup> parameters apply to both stacks.
- <sup>3</sup> scrubber flow rate applies to each scrubber.
- <sup>4</sup> unit must stop wood and/or oil burning within 30 minutes and only fire natural gas when two or more Wet ESP rectifier units are out of service. Minimum power requirements do not apply when firing natural gas only.
- <sup>5</sup> unit can only fire natural gas when both N and both S Wet ESP rectifier units are out of service. When burning wood and/or oil, if one field goes down in the PB 20 N stack and cannot be restarted within 30 minutes, then boiler rate must be cut to a maximum of 50% of nominal capacity and all flow routed through PB 20 S stack until the field is repaired or wood and/or oil burning is discontinued. When burning wood and/or oil, if one field goes down in the PB 20 S stack and cannot be restarted within 30 minutes, then boiler rate must be cut to a maximum of 50% of nominal capacity and all flow routed through PB 20 N stack until the field is repaired or wood and/or oil burning is discontinued. Nominal capacity is 600,000 pounds per hour of 800 psig steam, 50% steam from wood firing and 50% steam from fossil fuel firing. Minimum power requirements do not apply when firing natural gas only.

SO<sub>2</sub> Parameters (AOP Gap Filling):

Continuously monitor fuel type, weak and strong NCG routing and scrubber operation, and caustic addition flow rate and automatic valve position. At least daily measure lime kiln scrubber water pH. Add caustic to lime kiln scrubber water when either of the following conditions exist:

Lime kiln scrubber water is <7.0.

The weak or strong NCG scrubber is not operating and the respective NCG stream is routed to the lime kiln.

Caustic must be added at a rate to keep lime kiln scrubber water pH ≥7.0.

## APPENDIX D - APPLICABLE PERMITS AND ORDERS

Order No. DE 99AQ-I052

Order No. 2737-AQ05

PSD 01-03 (No. 01-03, Second Amendment Final Approval of Prevention of Significant Deterioration Application)

NOC Order No. 3462-AQ07

Order No. 3463-AQ07

NOC Order No. 3466-AQ07