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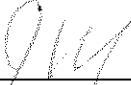
AIR OPERATING PERMIT NO. 0003697

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

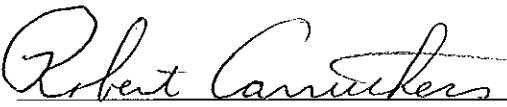
Boise White Paper, L.L.C.
Wallula, Washington

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

Issued by:
State of Washington
DEPARTMENT OF ECOLOGY
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INTRODUCTION AND LEGAL AUTHORITY

This Air Operating Permit (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 recordkeeping requirements, and reporting frequencies for the permitted sources.

The Boise White Paper, L.L.C. Wallula Mill (Boise), requires a Title V Air Operating Permit because it emits, or has the potential to emit, one hundred tons per year or more of one or more air pollutants. [WAC 173-401-300(1)]

During the drafting of this Permit, Washington State Department of Ecology (Ecology) has attempted to incorporate requirements using the exact language of the law, regulation, or order. Where there is a difference in language, this difference is presented in this Permit only for clarification of the underlying requirement. The legal requirement remains the underlying requirement. Any conflict between the Permit and an underlying requirement that is not acknowledged in this Permit or its support document, nor is addressed in past orders or permits referenced in this Permit or its support document, will be resolved by referring to the underlying requirement. Unless otherwise stated, the effective date of referenced regulations or statutes is that of the provision in effect on the date of permit issuance. Compliance with underlying requirements shall be demonstrated using the methods specified in this Permit or the support document.

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

The definition of terms contained in WAC 173-401-200, and as defined in all referenced regulations, applies to this Permit unless otherwise defined in the Permit.

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

This section contains requirements applicable to described units. General requirements that apply to monitoring, recordkeeping, and reporting for these limits are in the Facility-Wide Requirements section of this Permit. Monitoring and reporting requirements that are specific to each limit are listed in the emission unit specific tables and should be read in conjunction with the general requirements. Unless specified otherwise, the basis of authority for the type and frequency of monitoring imposed in Conditions A – S is WAC 173-401-615.

Refer to Appendix C for emission estimate algorithms. These algorithms set forth the calculation method for those emission limits that the required reference method itself does not yield a direct emission measurement. The Permittee may use an equivalent method with written approval from Ecology.

A. No. 2 Recovery Furnace

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
A.1.a	Particulate and HAP metals (Particulate Surrogate)	0.044 gr/dscf at 8% O ₂	EPA Method 5 is the reference test method. Sample at least annually consisting of three 1 hour test using EPA Method 5 or a test method approved in writing by Ecology. Report test results in the monthly report. The Permittee shall comply with Condition A.7 for monitoring requirements intended to indicate compliance with the particulate limit.	PSD-X-77-04 and 40 CFR 60.282(a)(1)(i) for PM limit. 40 CFR 63.862(a)(1)(i) for PM surrogate HAP limit. 40CFR 63.865(b)(a) for RM 40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.
A.1.b	Particulate	0.1 gr/dscf @ 8% O ₂ avg over three 1 hour tests	EPA Method 5 is the reference test method. Ongoing compliance assured by monitoring specified in Condition A.1.a	WAC 173-405-040(1)(a) for PM limit. 40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)	
A.2.a	Particulate	476 lbs/day, rolling annual average	<p>Daily average value is calculated using actual emissions from previous stack test results. Report test results in the monthly report.</p> <p>The Permittee shall comply with Condition A.7 for CAM monitoring requirements intended to indicate compliance with the particulate limit.</p>	<p>reporting/recordkeeping applicability.</p> <p>PSD-X-77-04 as consolidated in Order DE 96-AQ1078 for limit.</p> <p>40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.</p>
A.2.b	Particulate	75 tons per year, 12 month rolling annual average, calculated monthly.	<p>12 month rolling annual average value is calculated using emissions data from previous stack tests using EPA Method 5. Report test results and calculated emissions in the monthly report.</p> <p>The Permittee shall comply with Condition A.7 for CAM monitoring requirements intended to indicate compliance with the particulate limit.</p>	<p>Order No. DE 02AQ91S-5019 and WAC 173-400-091 for limit.</p> <p>40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.</p>
A.2.c	PM ₁₀	63 tons per year, 12 month rolling annual average calculated monthly.	<p>12 month rolling annual average value is calculated using emissions data from previous stack tests using EPA Method 5. Report test results and calculated emissions in the monthly report.</p> <p>The Permittee shall comply with Condition A.7 for CAM monitoring requirements intended to indicate</p>	<p>Order No. DE 02AQ91S-5019 and WAC 173-400-091 for limit.</p> <p>40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.</p>

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)	
A.3.a	Opacity and HAP metals	Average 35% for more than 6 consecutive minutes in any 60 minute period.	<p>compliance with the particulate limit.</p> <p>EPA Method 9 is the reference test method for the performance test for opacity.</p> <p>Monitor continuously with Continuous Opacity Monitoring System.</p> <p>If the total number of contiguous periods of excess emissions in a quarter is less than 6% of the total number of operating hours (excluding periods of startup, shutdown, or malfunction) during the quarter, the excess emissions do not constitute a violation of the underlying requirements for HAP metals.</p> <p>Report deviations to Administrator (Ecology) semiannually or more frequently as directed by Ecology.^{11,12,13,14}</p>	<p>40 CFR 60.282(a)(1)(ii) and WAC 173-405-040(6) for opacity standard</p> <p>40 CFR 60.11(b) for RM</p> <p>40 CFR 63.864(k)(2)(i) for HAP metals violation</p> <p>40 CFR 60.284(a)(1), 40 CFR 63.864(d), and 40 CFR 60.13(h) for COM requirements</p> <p>40 CFR 60.284(e)(1)(ii) for excess emission allowance</p> <p>WAC 173-400-105(7), WAC 173-401-615(1)(c), 40 CFR 63.8(c)(4), and 40 CFR 60.13(e) for COMS data recovery and excursion reporting</p>
A.3.b	Opacity/ Visible Emissions	When firing exclusively fuel oil, 20 percent opacity (6 minute average), except for one 6 minute period per hour of not	<p>EPA Method 9 is the reference test method.</p> <p>The Permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) that conforms to 40 CFR Part 60, Appendix F and Appendix B, Performance Specification 1</p>	<p>NSPS Subpart Db</p> <p>40 CFR 60.43b(f) and Order DE 02AQIS-3588 for opacity limit.</p> <p>40 CFR 60.46b(d)(7) for basis of compliance method.</p>

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
A.4	more than 27 percent opacity	to monitor opacity from the No. 2 recovery furnace. Report deviations/excess emissions to Administrator (Ecology) semiannually or more frequently as directed by Ecology. ^{11,13,14}	40 CFR 60.48b(a) for COMS requirement. WAC 173-401-615(1)(c); WAC 173-400-105(7); and 40 CFR 63.8(c)(4) for COMS data recovery
A.4	SO ₂ 500 ppm at 8% O ₂ , hourly average	Sample monthly consisting of three 1 hour test using EPA Method 6 or a test method approved in writing by Ecology. Report test results in the monthly report. ²	WAC 173-405-040(11)(a) for limit.
A.5.a	SO ₂ 5424 lbs/day, rolling annual average.	Daily average value is calculated using actual emissions from previous stack test results. Report deviations in the monthly report.	PSD-X-77-04 as consolidated in Order DE 96-AQI078
A.5.b	SO ₂ 585 tons per year, 12 month rolling annual average, calculated monthly	12 month rolling annual average value is calculated using CEM concentration data and air flow data from stack test results. Report test results and calculated emissions in the monthly report. ^{11,14}	Order No. DE 02AQ91S-5019 based on WAC 173-400-091(2); WAC 173-401-615(1)(c); and WAC 173-400-105(7); for CEMS data recovery
A.6	TRS 5 ppmvd at 8% O ₂ , 12 hour average	Monitor continuously using EPA Method 16. Report deviations in the monthly report. If the total number of contiguous periods of excess emissions in a quarter is less than 1% of the total number of operating hours (excluding periods of startup, shutdown, or malfunction) during the quarter, the excess emissions	40 CFR 60.283(a)(2) for limit 40 CFR 60.284(e)(1)(i) for excursion allowance WAC 173-401-615(1); WAC 173-400-105(7); and 40 CFR §60.13(e) for CEMS data recovery

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)	
A.7		do not constitute a violation of this requirement. ^{11,13}		
	Operation	Minimum operating condition	<p>Monitor opacity continuously using an approved COM operated in conformance with 40 CFR Part 60 (July 1, 1992), App. B and App. F, Perf. Spec. 1. The Permittee shall operate the continuous opacity monitor as a performance indicator to show continuous operation of the pollution control device.</p> <p>The Permittee will initiate corrective action within 24 hours when the average of ten consecutive 6 minute averages result in a measurement greater than 20% opacity.^{4,5} Failure to initiate corrective action within 24 hours may be a violation of the underlying applicable requirement. Report corrective actions and performance indicator deviations (excursions) in the monthly report.⁶</p>	<p>40 CFR 63.864(k)(1)(i) and 40 CFR 64.6 for monitoring and corrective action</p> <p>WAC 173-401-615(1)(c); WAC 173-400-105(7); and 40 CFR 63.8(c)(4) for CEMS data recovery</p> <p>40 CFR 64.9 for respective PM CAM reporting/recordkeeping</p>
A.8	NESHAPS Startup, Shutdown, and Malfunction (SSM) Plan	NA	Prepare and follow NESHAPS SSM Plan, consistent with 40 CFR 63.6(e)(3).	40 CFR 63.6(e)(3) and 63.866 for SSM requirements

B. No. 3 Recovery Furnace

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
B.1.a	Particulate (PM/PM ₁₀)	<p>0.027 gr/dscf at 8% O₂ hourly average.</p> <p>0.021 gr/dscf at 8% O₂, rolling annual average.⁷</p> <p>186 tpy rolling average</p>	<p>Sample monthly consisting of three 1 hour test using EPA Method 5 or a test method approved in writing by Ecology.³ Report test results in the monthly report.²</p> <p>The Permittee shall comply with Condition B.3 for CAM monitoring requirements intended to indicate compliance with the particulate limits.</p> <p>Use the results from the most recent source test to determine mass loading.</p>	<p>WAC 173-400-112 (Lowest Achievable Emission Rate – state nonattainment new source review) as implemented in Order DE 02-AQIS-3588 for concentration PM limits.</p> <p>Order 96-AQ-078 for mass based limit (Oct 17, 1996 amendment).</p> <p>40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.</p> <p>WAC 173-401-615 for stipulation to use most recent source test results for mass loading determination.</p>
B.1.b	Particulate and HAP (PM as surrogate)	0.044 gr/dscf @ 8%.	<p>EPA Method 5 or a test method approved in writing by Ecology.</p> <p>The Permittee shall comply with Condition B.3 for minimum O&M (HAPs) and CAM monitoring (particulate) requirements intended to indicate compliance with the particulate limits.</p>	<p>40 CFR 60.282(a)(1)(i) for PM limit.</p> <p>40 CFR 63.862(a)(1)(i) for HAP limit.</p> <p>40 CFR 63.864(k)(1)(i) for monitoring and corrective action.</p> <p>40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and</p>

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
B.1.c	Particulate	EPA Method 5 or a test method approved in writing by Ecology. Ongoing compliance assured by monitoring specified in Condition B.1.b.	reporting/recordkeeping applicability. WAC 173-405-040 (1) for limit. 40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.
	B.2.a	Opacity and HAP metals	Average 35% for more than 6 consecutive minutes in any 60 minute period. EPA Method 9 is the reference test method for the performance test for opacity. Monitor continuously with Continuous Opacity Monitoring System. If the total number of contiguous periods of excess emissions in a quarter is less than 6% of the total number of operating hours (excluding periods of startup, shutdown, or malfunction) during the quarter, the excess emissions do not constitute a violation of the underlying requirements for HAP metals. Report deviations to Administrator (Ecology) semiannually or more frequently as directed by Ecology. ^{11,12,13,14}

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
B.2.b	Opacity/ Visible Emissions	<p>EPA Method 9 is the reference test method.</p> <p>Report excess emission to Administrator (Ecology) semiannually or more frequently as directed by Ecology. ^{11,13,14}</p>	<p>NSPS Subpart Db</p> <p>40 CFR 60.43b(f) and Order DE 02AQIS-3588 for opacity limit.</p> <p>40 CFR 60.46b(d)(7) for basis of compliance method.</p> <p>40 CFR 60.48b(a) for COMS requirement.</p> <p>WAC 173-401-615(1)(c); WAC 173-400-105(7); and 40 CFR 63.8(c)(4) for COMS data recovery.</p>
B.3	Operation	<p>Monitor opacity continuously using an approved COM operated in conformance with 40 CFR Part 60 (July 1, 1992), App. B and App. F, Perf. Spec. 1. The Permittee shall operate the continuous opacity monitor as a performance indicator.</p> <p>The Permittee will initiate corrective action within 24 hours when the average of ten consecutive 6 minute averages result in a measurement greater than 20% opacity. ^{4,5} Failure to initiate corrective action within 24 hours may be a violation of the underlying applicable requirement. Report corrective actions and performance indicator deviations/excursions in the monthly report. ⁶</p>	<p>40 CFR 63.864(k)(1)(i) and 40 CFR 64.6 for monitoring and corrective action.</p> <p>WAC 173-401-615(1)(c); WAC 173-400-105(7); and 40 CFR 63.8(c)(4) for CEMS data recovery.</p> <p>40 CFR 64.9 for respective PM CAM reporting/recordkeeping</p>

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)	
B.4	Annual Capacity Factor	10% annual fuel capacity factor, calendar year basis.	Annual average heat input from oil or natural gas fossil fuels shall not exceed 10% of the total heat input on an MMBTU basis, calendar year annual average. The unit is not subject to NSPS subpart Db if the annual capacity factor remains at or below 10%. The Permittee shall keep records of heat input calculations which demonstrate that the annual fuel capacity factor is below 10%.	NSPS Subpart Db 40 CFR 60.44b for limit
B.5.a	SO ₂	1301 tpy, 12 month rolling annual average.	EPA Method 6 or 6C is the primary reference test method. The Permittee shall perform source tests monthly. Annual average value is calculated using actual emissions from the results of the most recent source tests. The Permittee shall report monthly all source test results and rolling 12 month mass emissions. ² Source tests shall be conducted at a production rate which is at or above the average production rate in the previous month.	PSD-01-07 condition 1.1 as BACT avoidance limit for SO ₂
B.5.b	SO ₂	500 ppmvd at 8% O ₂ hourly average.	EPA Method 6 or 6C is the primary reference test method. The Permittee shall sample monthly consisting of three 1 hour sample runs using Method 6, 6C, or a test method approved in advance in writing by Ecology. Report test results monthly. ²	PSD-01-07 condition 1.2 and WAC 173-405-040(11)(a) for SO ₂ limit.

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
B.6	NO _x 112 ppmvd at 8% O ₂ daily average. 825 tpy	EPA Method 7, 7A, 7B, or 7E is the primary reference test method. The Permittee shall monitor continuously using an approved CEM that conforms to 40 CFR Part 60, Appendix B, Performance Specification 2. Report exceedances monthly. ^{11,14}	PSD-01-07 condition 1.3 BACT and PSD-95-04 through Order DE 96-AQI078 for concentration limit. PSD-95-04 through Order DE 96-AQI078 for mass limit. WAC173-401-615(1)(c) WAC173-400-105(7) for CEMS data recovery
B.7	CO 500 ppmvd at 8% O ₂ , 24 hour average. 1355 tpy	EPA Method 10 is the primary reference test method. The Permittee shall monitor continuously using an approved CEM that conforms to 40 CFR Part 60, Appendix B, Performance Specification 4. Report exceedances monthly. ^{11,14}	PSD-01-07 condition 1.4 BACT Limit for concentration limit. PSD-95-04 through Order DE 96-AQI078 for mass limit. WAC 173-401-615(1)(c) WAC173-400-105(7) for CEMs data recovery.
B.8.a	TRS 5 ppmvd at 8% O ₂ , 12 hour average.	EPA Method 16, 16A, or 16B is the primary reference test method. The Permittee shall monitor continuously using an approved CEM operated in conformance with 40 CFR Part 60, Appendix B, Performance Specification 5. Report monitoring results and exceedances quarterly to Ecology. If the total duration of all 12 hour averaging periods of excess emissions in a quarter is less than 1% of the total number of operating hours (excluding periods of	PSD-01-07 condition 1.5, WAC 173-405-040(1)(c) as state only, not federally enforceable and 40 CFR 60.283(a)(2) for limit. 40 CFR 60.284(a)(2) for CEM. 40 CFR 60.284(e)(1)(i) for excursion allowance. WAC 173-401-615(1)(c) WAC 173-400-105(7) 40 and 40 CFR

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)	
B.8.b	TRS	27 tpy annual average.	Annual average value is calculated using an approved CEM and is operated in conformance with 40 CFR Pt 60 (July 1, 1992), App. B, Perf. Spec. 5. Annually report emissions. ^{11,13,14}	<p>startup, shutdown, or malfunction) during the quarter, the excess emissions do not constitute a violation of this requirement. ^{11,13,14}</p> <p>§60.13(e) for CEMS data recovery.</p> <p>PSD-95-04 as consolidated in Order DE 96-AQI078.</p> <p>WAC 173-401-615(1)(c) WAC 173-400-105(7) 40 and 40 CFR §60.13(e) for CEMS data recovery.</p>
B.9	VOC	0.05 lb/MMBTU hourly average. Source test during the last year of permit term.	Sample consists of one 1 hour test using EPA Method 25A or a test method approved in writing by Ecology once per permit term. The Permittee is required to conduct the test at full load. Results expressed in terms of propane (or other appropriate organic calibration gas) or in terms of carbon per EPA Method 25A. Report test results with the renewal permit application. The Permittee shall comply with Condition B.3.a for O&M requirements intended to indicate compliance with the VOC limit.	PSD-95-04 as consolidated in Order DE 96-AQI078
B.10	VOC	179 tpy annual average	Annual average value is calculated using actual emissions from previous stack test results. Results expressed in terms of propane (or other appropriate organic calibration gas) or in terms of carbon per EPA Method 25A. Report test	PSD-95-04 as consolidated in Order DE 96-AQI078.

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
		results with the renewal permit application.	
B.11 NESHAPS Startup, Shutdown, and Malfunction (SSM) Plan	NA	Prepare and follow NESHAPS SSM Plan, consistent with 40 CFR 63.6(e)(3)	40 CFR 63.6(e)(3) and 63.866 for SSM requirements.

C. Lime Kiln

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
C.1.a HAP metal (PM as surrogate)	0.064 gr/dscf at 10% O ₂ hourly average.	<p>Sample at least once/permit cycle consisting of three 1 hour test using EPA Method 5 or a test method approved in writing by Ecology. Report test results in the monthly report.</p> <p>The Permittee shall comply with Condition C.7 for O&M requirements intended to indicate ongoing compliance with the particulate limit. Sources equipped with a scrubber shall not have six or more monitoring parameter deviations in a semiannual reporting period on each unit. A unit deviation day is a 24 hour period in which one or more monitoring parameter deviation(s) occur(s) on a specific emission unit.</p>	<p>40 CFR 63.862(a)(1)(i)(c) for HAP PM surrogate limit.</p> <p>40 CFR 63.864(k)(2)(iii) for deviation allowance limitation</p>
C.1.b Particulate	0.066 gr/dscf at 10% O ₂ when firing natural gas.	<p>EPA Method 5 or a test method approved in writing by Ecology.</p> <p>The Permittee shall comply with Condition C.7.a and C.7.b for</p>	<p>40 CFR 60.282(a)(3) for PM limits.</p> <p>40 CFR 64.2 and 64.6 through 64.9</p>

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
	0.13 gr/dscf when firing liquid fossil fuel.	CAM monitoring requirements intended to indicate compliance with the particulate limit.	for respective PM CAM monitoring and reporting/recordkeeping applicability.
C.1.c	0.067 gr/dscf at 10% O ₂ when firing with natural gas hourly average. 0.12 gr/dscf at 10% O ₂ when firing fuel oil	Sample monthly consisting of one 1 hour test using EPA Method 5 or a test method approved in writing by Ecology. ² Report test results in the monthly report. The Permittee shall comply with Condition C.7.a and C.7.b for CAM monitoring requirements intended to indicate compliance with the particulate limit.	PSD-X-77-04 as consolidated in Order DE 96-AQI078 for basis of particulate limit when firing with fuel oil, 40 CFR 60.282(a)(3)(i) for basis of PM limit when firing with natural gas. 40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.
C.1.d	0.13 gr/dscf at 10% O ₂	EPA Method 5 is reference test method. The Permittee shall comply with Condition C.7.a and C.7.b for CAM monitoring requirements intended to indicate compliance with the particulate limit.	WAC 173-405-040(3) for limit. 40 CFR 64.2 and 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.
C.1.e	906 lbs/day when firing with fuel oil, 466 lbs/day when firing with natural gas, rolling	Daily average value is calculated using actual emissions from previous stack test results. Lime kiln particulate tests will be performed on the fuel being fired on the day of the scheduled test. Tests will not be scheduled for the	PSD-X-77-04 as consolidated in Order DE 96-AQI078 for limit. 40 CFR 64.2 and 64.6 through 64.9

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
	annual average.	<p>purpose of testing the lime kiln while firing a particular fuel type. Report results in the monthly report.</p> <p>The Permittee shall comply with Condition C.7.a and C.7.b for CAM monitoring requirements intended to indicate compliance with the particulate limit.</p>	for respective PM CAM monitoring and reporting/recordkeeping applicability.
C.2.a	Opacity (visible emissions) Average 35% for more than six consecutive minutes in any 60 minute period.	<p>EPA Method 9 is the reference test method.</p> <p>The Permittee shall comply with Condition C.7.a and C.7.b for CAM monitoring and reporting requirements intended to indicate compliance with the opacity limit.</p> <p>The Permittee shall conduct an EPA Method 9 test within 180 days of permit renewal. The results will be used to validate the reliance on Condition C.7.a for ongoing compliance with the opacity limit of this condition.</p>	<p>WAC 173-405-040(6) for limit</p> <p>40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.</p>
C.3	SO ₂ 500 ppmvd at 10% O ₂ hourly average	<p>Sample consisting of three 1 hour tests per quarter using EPA Method 6 or a test method approved in writing by Ecology.² Report test results quarterly. The Permittee shall comply with Condition C.7.a for O&M requirements to indicate compliance with the SO₂ limit.</p>	WAC 173-405-040(11)(a) for limit
C.4	SO ₂ 5 ppmvd at 10% O ₂ rolling annual average.	<p>Sample consisting of three 1 hour tests per quarter using EPA Method 6 or a test method approved in writing by Ecology.² Report test results quarterly. The</p>	Order DE 96-AQI078 for limit

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
			Permittee shall comply with Condition C.7.a for O&M requirements intended to indicate compliance with the SO ₂ limit.	
C.5	SO ₂	19 lbs/day, rolling annual average	Daily average value is calculated using actual emissions from previous stack test results. Report test results quarterly in the monthly report.	PSD-X-77-04 as consolidated in Order DE 96-AQI078 for limit
C.5.a	SO ₂	15.8 ppmvd at 10% O ₂ (oil), rolling annual average. This limit applies when oil is fired at a rate above 1 gpm	See Condition C.4 for monitoring and reporting requirements.	PSD X-77-04 Amendment 2 for limit
C.5.b	SO ₂	147.7 lbs/day (oil), rolling annual average. This limit applies when oil is fired at a rate above 1 gpm	See Condition C.4 for monitoring and reporting requirements.	PSD X-77-04 Amendment 2 for limit
C.5.c	SO ₂	1.55% sulfur content in fuel oil	Fuel oil content shall be monitored through fuel supplier certification of the total sulfur content (expressed as % by weight) in each load fuel oil received by Boise.	PSD X-77-04 Amendment 2 Approval Condition 4 for limit
C.6.a	TRS	8 ppmvd at 10% O ₂ , 12 hour average	EPA Method 16, 16A, or 16B is the primary reference test method. The Permittee shall monitor continuously using an approved CEM operated in conformance	Order DE 96-AQI078 and 40 CFR 60.283(a)(5) for TRS limit.

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
		with 40 CFR Part 60, Appendix B, Performance Specification 5. Report only deviations in the monthly report. ^{11,13,14}	40 CFR 60.284(a)(2) for CEM 40 CFR 60.13(d)(1) for CEM calibration. WAC 173-401-615(1)(c); WAC 173-400-105(7); and 40 CFR §60.13(e) for CEMS data recovery.
C.6.b	TRS 20 ppmvd at 10% O ₂ on a daily average.	EPA Method 16, 16A, or 16B is the primary reference test method. Ongoing compliance indicated by monitoring required in C.6.a. Report only deviations in the monthly report. ^{11,14}	WAC 173-405-040(3) for limit.
C.7.a	Operation Pressure drop across lime kiln scrubber, scrubber recirculation flow rate and caustic addition flowrate to lime kiln must meet the minimum level established during initial or subsequent performance test, three hour block average.	Continuously monitor pressure drop, scrubber recirculation rate, and caustic addition flowrate. Report deviations/excursions in monthly, quarterly and semiannual reports. ⁶ Pressure drop recorded at least once every 15 minutes at equally spaced intervals, or as an arithmetic or integrated three hour block average. ^{11,12,13} Notes: Maintain three hour average of scrubber recirculation rate ≥550 gpm (based on performance test results from June 26-28, 2012). Maintain three hour average of scrubber pressure drop ≥23 H ₂ O when mud flow >200 gpm and	40 CFR 63.864(e)(10), 40 CFR 60.284(b)(2)(i), and 40 CFR 64.6 for pressure drop and recirculation flow rate monitoring and monitoring accuracy. WAC 173-401-615(1)(c); WAC 173-400-105(7); 40 CFR 63.8(c)(4) for CMS data recovery. 40 CFR 64.9 for respective PM CAM reporting/recordkeeping

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
		Caustic addition is for SO ₂ compliance only.	≥21.3 H ₂ O when mud flow ≤ 200 gpm (based on performance test results from June 26-28, 2012). Maintain three hour average of caustic addition rate ≥0.25 gpm (based on performance test results from February 16, 2016).	
C.7.b	Scrubber Monitoring	Three hour block average parameter value is outside the range established in IPT or subsequent performance test.	Implement corrective action as specified in the Startup, Shutdown, and Malfunction Plan (SSMP) when any 3 hour block average parameter value is outside the range of values established in the IPT or subsequent performance test. Failure to initiate corrective action may be a violation of the underlying applicable requirement. ^{4,5}	40 CFR 63.864(k)(1)(ii) and 40 CFR 64.6 for CA requirement.
C.8	NESHAP Startup, Shutdown, and Malfunction (SSM) Plan	NA	Prepare and follow NESHAP SSM Plan, consistent with 40 CFR 63.6(e)(3).	40 CFR 63.6(e)(3) and 63.866 for SSM requirements.

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

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
C.9	TRS	80 ppmvd at 10% O ₂ for two consecutive hours.	EPA Method 16, 16A, or 16B is the primary reference test method. Ongoing compliance indicated by monitoring required in C.6.a.	WAC 173-405-040(3)(b) for limit. WAC 173-401-615(1)(c); WAC 173-400-105(7); and WAC 173-405-077

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
		Report only deviations in the monthly report. ^{11,14}	for CEMS data recovery.

D. No. 2 Smelt Tank

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
D.1.a	PM and HAP metals (PM as surrogate HAP)	0.2 lbs/ton of black liquor solids (dry weight), hourly average.	<p>Sample monthly consisting of three 1 hour test using EPA Method 5 or a test method approved in writing by Ecology. Report test results in the monthly report.²</p> <p>The Permittee shall comply with Condition D.5 for O&M (HAPs) and CAM monitoring (particulate) requirements intended to indicate compliance with the particulate limit.</p> <p>For HAP metal standard, sources equipped with a scrubber shall not have six or more monitoring parameter exceedances in a semiannual reporting period on each unit. A unit exceedance day is a 24 hour period in which one or more monitoring parameter exceedance(s) occur(s) on a specific emission unit.</p>	<p>Order DE 96-AQI078 and 40 CFR 60.282(a)(2) for PM limit.</p> <p>40 CFR 63.862(a)(1)(i)(B) for PM surrogate HAP limit.</p> <p>40 CFR 63.864(k)(2)(iii) for excursion allowance limitation.</p> <p>40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.</p>
D.1.b	Particulate	0.30 lbs/ton BLS	<p>EPA Method 5 is the reference test method.</p> <p>Ongoing compliance assured by monitoring specified in Condition D.1.a.</p>	<p>WAC 173-405-040(2) for limit.</p> <p>40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and</p>

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
				reporting/recordkeeping applicability.
D.2	Particulate	71 lbs/day rolling annual average.	Daily average value is calculated using actual emissions from previous stack test results. Report results in the monthly report. The Permittee shall comply with Condition D.5.a and D.5.b for CAM monitoring requirements intended to indicate compliance with the particulate limit.	Order DE 96-AQI078 for limit. 40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.
D.3	Opacity (visible emissions)	Average 35% for more than six consecutive minutes in any 60 minute period.	EPA Method 9 is the reference test method. The Permittee shall comply with Condition D.5.a and D.5.b for CAM monitoring and reporting requirements intended to indicate compliance with the opacity limit. The Permittee shall conduct an EPA Method 9 test within 180 days of permit renewal and unit operation. The results will be used to validate the reliance on Condition D.5.a for ongoing compliance with the opacity limit of this condition.	WAC 173-405-040(6) for limit 40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.
D.4	TRS	0.033 lbs/ton of black liquor solids.	Sampling consists of one test per year using EPA Method 16A/6C bag sample or equivalent method. Report test results annually.	40 CFR 60.283(a)(4) and Order DE 96 AQI078 for limit.
D.5.a	Scrubber Monitoring	Pressure drop across SDT scrubber and recirculation	Continuously monitor pressure drop and recirculation flow. Report deviations/excursions in the monthly, quarterly and	40 CFR 63.864(e)(10) and 40 CFR 64.6 for

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)	
	flow rate to SDT scrubber must meet the minimum level established during initial or subsequent performance tests, three hour block average.	semiannual reports. ⁶ Pressure drop recorded at least once every 15 minutes at equally spaced intervals, or as an arithmetic or three hour block average. ^{11,12} Note: Maintain 1 hour scrubber recirculation rate and pressure drop equal or greater than 60 gpm and 0.7 H ₂ O, respectively, based on initial performance test results of 7/2/2004.	pressure drop and flow rate monitoring 40 CFR 63.867(c) and 40 CFR 63.10(c) for reporting. 40 CFR 64.9 for respective PM CAM reporting/recordkeeping 40 CFR 63.8(c)(4)(ii) for recording frequency. 40 CFR 63.8(g)(2) for monitored data management requirements. WAC 173-401-615(1)(c); WAC 173-400-105(7); and 40 CFR §63.8(c)(4) for CMS data recovery.	
D.5.b	Scrubber Monitoring	Three hour block average parameter value is outside the range established in IPT or subsequent performance test.	Implement corrective action as specified in the Startup, Shutdown, and Malfunction Plan (SSMP) when any three hour block average parameter value is outside the range of values established in the IPT or subsequent performance test. Failure to initiate corrective action may be a violation of the underlying applicable requirement. ^{4,5}	40 CFR 63.864(k)(1)(ii) and 40 CFR 64.6 for CA requirement.
D.6	NESHAP Startup, Shutdown, and	NA	Prepare and follow NESHAP SSM Plan, consistent with 40 CFR 63.6(e)(3).	40 CFR 63.6(e)(3) and 63.866 for SSM requirements.

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
Malfunction (SSM) Plan			

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

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
D.7	Damper position	None	Record the damper position. Report only bypass periods.	Order DE 96-AQI078 for requirement

E. No. 3 Smelt Tank

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
E.1.a	HAP metal (PM as surrogate)	0.2 lbs/ton of black liquor solids, hourly average.	<p>Sample annually consisting of three 1 hour test using EPA Method 5 or a test method approved in writing by Ecology. Report test results in the monthly report.</p> <p>The Permittee shall comply with Condition E.3.a and E.3.b for requirements intended to indicate compliance with the particulate limit.</p> <p>Sources equipped with a scrubber shall not have six or more monitoring parameter exceedances in a semiannual reporting period on each unit. A unit exceedance day is a 24 hour period in which one or more monitoring parameter exceedance(s) occur(s) on a specific emission unit.</p>	<p>40 CFR 63.862(a)(1)(i)(B) for HAP limit</p> <p>40 CFR 63.864(k)(2)(iii) for excursion allowance limitation.</p>

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
E.1.b	Particulate	0.3 lbs/ton of black liquor solids, hourly average.	<p>Sampling consists of one 1 hour test per month using EPA Method 5 or a test method approved in writing by Ecology. Report test results in the monthly report.²</p> <p>The Permittee shall comply with Condition E.3.a for CAM monitoring requirements intended to indicate compliance with the particulate limit.</p>	<p>WAC 173-405-040(2) for PM limit.</p> <p>40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.</p>
E.2	Opacity (visible emissions)	Average 35% for more than six consecutive minutes in any 60 minute period.	<p>EPA Method 9 is the reference test method. The Permittee shall comply with Condition E.3.a for CAM monitoring and reporting requirements intended to indicate compliance with the opacity limit.</p> <p>The Permittee shall conduct an EPA Method 9 test within 180 days of permit renewal. The results will be used to validate the reliance on Condition E.3.a for ongoing compliance with the opacity limit of this condition.</p>	<p>WAC 173-405-040(6) for limit.</p> <p>40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.</p>
E.3.a	Scrubber Monitoring	Pressure drop across SDT scrubber and recirculation flow rate to SDT scrubber must meet the minimum level established during initial or subsequent performance test, three	<p>Continuously monitor pressure drop and recirculation flow. Report deviations/excursions in the monthly, quarterly and semiannual reports.⁶ Pressure drop recorded at least once every 15 minutes at equally spaced intervals, or as an arithmetic or three hour block average.^{11,12}</p> <p>Note: Maintain 1 hour scrubber recirculation rate equal or greater than 25 gpm and pressure drop equal or less than 2" H2O based</p>	<p>40 CFR 63.864(e)(10) and 40 CFR 64.6 for pressure drop and flow rate monitoring</p> <p>40 CFR 63.867(c) and 40 CFR 63.10(c) for reporting</p> <p>40 CFR 64.9 for respective PM CAM reporting/recordkeeping</p>

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
		hour block average.	on initial performance test results of 6/15/2004.	40 CFR 63.8(c)(4)(ii) and 40 CFR 63.8(g)(2) for data management requirements WAC 173-401-615(1)(c); WAC 173-400-105(7); and 40 CFR 63.8(c)(4) for CMS data recovery.
E.3.b	Scrubber Monitoring	Three hour block average parameter value is outside the range established in IPT or subsequent performance test.	Implement corrective action as specified in the Startup, Shutdown, and Malfunction Plan (SSMP) when any three hour block average parameter value is outside the range of values established in the IPT or subsequent performance test. Failure to initiate corrective action may be a violation of the underlying applicable requirement. 4.5	40 CFR 63.864(k)(1)(ii) and 40 CFR 64.6 for CA requirement.
E.4	NESHAP Startup, Shutdown, and Malfunction (SSM) Plan	NA	Prepare and follow NESHAP SSM Plan, consistent with 40 CFR 63.6(e)(3).	40 CFR 63.6(e)(3) and 63.866 for SSM requirements.

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

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
E.5	Damper position	None	Record the damper position. Report only bypass periods.	Order DE 96-AQI078 for requirement

F. Hogged Fuel Boiler

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
F.1	Particulate (PM/PM ₁₀)	0.026 gr/dscf at 7% O ₂ average of three 1 hour tests.	Sample quarterly consisting of three 1 hour tests using EPA Method 5 or a test method approved in writing by Ecology. Report test results quarterly. ² Ongoing compliance indicated by monitoring specified in Condition F.12.	Order DE 02AQIS-3588 for limit 40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.
F.2	Particulate	0.2 gr/dscf at 7% O ₂ .	EPA Method 5 is reference test method. Ongoing compliance indicated by monitoring specified in Condition F.12.	WAC 173-405-040(5)(a) for limit. 40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.
F.3	Particulate	459 lbs/day, rolling annual average.	Daily average value is calculated using actual emissions from previous stack test results. Report results quarterly. Ongoing compliance indicated by monitoring specified in Condition F.12.	PSD-X-77-04 as consolidated in Order DE 96-AQI078 for limit. 40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.
F.4	Particulate (PM/PM ₁₀)	77 tons/year, 12 month rolling annual average.	EPA Method 5 is the reference test method. Annual average value is calculated using actual emissions from the most recent stack test results from	Order DE 02AQIS-3588 limiting PM/PM ₁₀ to past actual emissions. 40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)	
F.5	Opacity (Visible Emissions)	Average 20% for more than three consecutive minutes in any 60 minute period, except for emissions due to soot blowing or grate cleaning for up to 15 minutes in eight consecutive hours.	<p>Condition F.2. Report test results monthly.²</p> <p>Ongoing compliance indicated by monitoring specified in Condition F.12.</p> <p>EPA Method 9 is the reference test method. If visible emissions are greater than 20%, the Permittee shall, within 24 hours, initiate corrective action to reduce visible emissions. Failure to initiate corrective action may be a violation of the underlying applicable requirement. Document and report any excursion and corrective actions monthly.</p> <p>Ongoing compliance indicated by monitoring specified in Condition F.12.</p>	<p>monitoring and reporting/recordkeeping applicability.</p> <p>WAC 173-400-070(2)(a) for basis of opacity limit</p> <p>WAC 173-401-615 for monitoring</p> <p>40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.</p>
F.6	SO ₂	1000 ppm one hour average at 7% O ₂	EPA Method 6 is the reference test method.	WAC 173-405-040(11)(b) for limit
F.7	SO ₂	102 tons/year 12 month rolling annual average.	The Permittee shall record time of combustion of low volume, high concentration (LVHC) noncondensable gas (NCG). The combustion shall not exceed 1,200 hours per year. Report the hours of combustion with semiannual MACT reporting requirements.	Order DE 02AQIS-3588 for limit
F.8	NO _x	0.30 lb/MMBtu 30 day rolling average.	EPA Method 7, 7A, 7B, or 7E is the reference test method. The Permittee shall install, calibrate, maintain, and operate a continuous monitoring system	PSD-01-07 Amendment 1 (2/1/06) approval condition 2.1 for 0.30 lb/MMBtu limit.

F.9

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
	0.30 lb/MMBtu	to monitor NOx from the HFB. Monitor continuously using an approved CEM that conforms to 40 CFR Part 60, Appendix B, Performance Specification 2. CEM data shall be averaged over a rolling 30 day period. Report monitoring results and exceedances semiannually to the Administrator (Ecology) as required by 40 CFR 60.49b(w). ^{11,13,14}	40 CFR 60.44b for 0.30 lb/MMBtu limit WAC 173-401-615(1)(c); WAC 173-400-105(7); and 40 CFR §60.13(e) for CEMS data recovery.
CO	500 ppmvd at 7% O ₂ , 12 month rolling annual average.	<p>EPA Method 10/10B is the primary reference test method. Source test monthly consisting of three 1 hour sample runs using a modified Ecology Method 10/10B (Tedlar bag method). Annual average is calculated from monthly test results.² Report results monthly.</p> <p>As an alternative to source testing, the Permittee may install, calibrate, maintain, and operate a CEM system to monitor CO from the HFB. Monitor continuously using an approved CEMS that conforms to 40 CFR Part 60, Appendix B, Performance Specification 4. CEMS data must be averaged over a rolling 12-month period. Boise White Paper, LLC must report monitoring results and exceedances monthly to the permittee's air regulatory authority of their Title V air operating permit.^{11,14}</p>	<p>PSD-01-07 condition 2.2 for limit.</p> <p>WAC 173-401-615(1)(c); WAC 173-400-105(7); and 40 CFR §60.13(e) for CEMS data recovery.</p> <p>PSD-01-07 condition 2.2 amendment 2 dated May 24, 2017 for CEM monitoring allowance.</p>

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)	
F.10	Operation	Minimum operating condition for CO process monitoring	Maintain a continuous process combustion CO monitor at the boiler outlet and monitor in process. CO concentration as a performance indicator. Whenever CO concentration at the boiler outlet is in excess of 2,000 ppmvd (7% O ₂) for more than 24 hours, the Permittee shall, within 24 hours, initiate corrective action to reduce in process CO concentration. 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. The Permittee shall report 24 hour average in process CO concentration in excess of 2,000 ppmvd (7% O ₂) and corrective action on a monthly basis. ^{11,14}	PSD-01-07 condition 2.3 for monitoring. WAC 173-401-615(1)(c); and WAC 173-400-105(7) for CMS data recovery.
F.11	Operation	Minimum operating condition for bypassing ESP when firing natural gas exclusively.	Maintain ESP bypass valves in closed position during biomass or solid fuel firing. Monitor and record the positions of ESP bypass valves at all times. The Permittee shall report monthly all bypass periods and the type of fuel fired during bypass period.	PSD-01-07 condition 2.4 for bypass requirement.
F.12	Operation	Minimum operating condition for Wet ESP	During firing biomass or solid fuel, continuously monitor total secondary electric power input of the electrostatic precipitator. Total secondary power must be recorded at least once every 15 minutes at equally spaced	40 CFR 64.6 for monitoring and corrective action requirement. 40 CFR 64.9 for respective PM CAM reporting/recordkeeping

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
		<p>intervals, or as an arithmetic or three hour block average. ^{11,12}</p> <p>Maintain the three hour average total secondary electric power input of the electrostatic precipitator at or above the minimum operating limits established in an IPT or subsequent performance test.</p> <p>Note: Maintain the three hour average total secondary electric power input of the electrostatic precipitator equal to or greater than 16 kVA based on initial performance test results of 1/20/2016.</p> <p>The Permittee must initiate corrective action within 72 hours of discovery that the three hour rolling average total secondary power input is outside the range of values established in the IPT or subsequent performance test. ^{4,5} Failure to initiate corrective action within 24 hours may be a violation of the underlying applicable requirement. Report corrective actions and performance indicator deviations (excursions) in the monthly report. ⁶</p>	<p>WAC 173-401-615(1)(c); and WAC 173-400-105(7) for CMS data recovery.</p>
F.13	CO	1,500 ppm by volume on a dry basis corrected to 3 percent	EPA Method 10 is the reference method. Conduct performance test annually. If performance tests show that the emissions are at or below 75 percent of the emission limit for at least 2 consecutive years for the

40 CFR 63.7500(a)(1) and Table 2 to Subpart DDDDD of Part 63 (Item 7a) for limit

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
	oxygen, 3-run average; or if using a CEMS, 720 ppm by volume on a dry basis corrected to 3 percent oxygen, 30-day rolling average	pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions. The Permittee may choose to conduct performance tests for the pollutant every third year. The Permittee may also show compliance through a CO continuous emission monitoring system (CEMS). The Permittee must develop a site-specific monitoring plan that addresses design, data collection, and the quality assurance and quality control elements outlined in §63.8(d) and the elements described in 40 CFR 63.7505(d)(1)(i) through (iii).	40 CFR 63.7515(a) and (b) for monitoring 40 CFR 63.7505(c) for compliance options 40 CFR 63.7505(d) for site-specific plan
F.14	Filterable PM 4.3E-02 lb per MMBtu of steam output or 3.7E-02 lb per MMBTU of heat input	EPA Method 5 is the reference method. Conduct performance test annually. If performance tests show that the emissions are at or below 75 percent of the emission limit for at least 2 consecutive years for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the Permittee may choose to conduct performance tests for the pollutant every third year.	40 CFR 63.7500 (a)(1) and Table 2 to Subpart DDDDD of Part 63 (Item 7b) for limit 40 CFR 63.7515(a) and (b) for monitoring

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
F.15	HCl 2.5E-02 lb per MMBtu of steam output or 2.2 E-02 lb per MMBTU of heat input	EPA Method 26 or 26A is the reference method. Conduct performance test annually. If performance tests show that the emissions are at or below 75 percent of the emission limit for at least 2 consecutive years for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the Permittee may choose to conduct performance tests for the pollutant every third year. The Permittee may also demonstrate compliance with the applicable emission limit using fuel analysis if the emission rate calculated according to §63.7530(c) is less than the applicable emission limit.	40 CFR 63.7500 (a)(1) and Table 2 to Subpart DDDDD of Part 63 (Item 1.a) for limit 40 CFR 63.7505(c) for compliance options. 40 CFR 63.7515(a) and (b) for monitoring
F.16	Hg 6.4E-06 lb per MMBtu of steam output or 5.7E-06 lb per MMBTU of heat input	EPA Method 26 or 26A is the reference method. Conduct performance test annually. If performance tests show that the emissions are at or below 75 percent of the emission limit for at least 2 consecutive years for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the permittee may choose to conduct performance tests for the pollutant every third year.	40 CFR 63.7500 (a)(1) and Table 2 to Subpart DDDDD of Part 63 (Item 1.b) for limit 40 CFR 63.7505(c) for compliance options. 40 CFR 63.7515(a) and (b) for monitoring

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
F.17	Tune-Up	<p>The permittee may also demonstrate compliance with the applicable emission limit using fuel analysis if the emission rate calculated according to §63.7530(c) is less than the applicable emission limit.</p> <p>Subsequent tune-ups shall be performed annually or as specified by the applicable frequency specified in §63.7540(a)(10) and Table 3. Conduct this tune-up as a work practice for dioxins/furans.</p>	<p>40 CFR 63.7540(a)(10) and Table 3 to Subpart DDDDD of Part 63 (Item 3) for subsequent tune-ups</p>
F.18	Startup	<p>Boise must operate all CMS during startup.</p> <p>For startup, the Permittee must use only clean fuel such as natural gas.</p> <p>The Permittee must comply with all applicable emissions limits at all times except for startup or shutdown periods conforming with this work practice. The Permittee must collect monitoring data during periods of startup, as specified in §63.7535(b), and must keep records during periods of startup. The Permittee must keep records concerning activities and periods of startup, as specified in §63.7555.</p>	<p>40 CFR Part 63.7500(a) and (b) for requirement and Table 3 to Subpart DDDDD of Part 63 (Item 5) for specifics.</p>
F.19	Shutdown	<p>The Permittee must operate all CMS during shutdown.</p>	<p>40 CFR Part 63.7500(f) for requirement and</p>

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
		<p>The Permittee must comply with all applicable emissions limits at all times except for startup or shutdown periods conforming with this work practice. The Permittee must collect monitoring data during periods of shutdown, as specified in §63.7535(b), and must keep records during periods of shutdown. The Permittee must keep records concerning activities and periods of shutdown, as specified in §63.7555.</p>	<p>Table 3 to Subpart DDDDD of Part 63 (Item 6) for specifics</p>
F.20	Operations - Wet ESP	<p>Maintain the 30-day rolling average total secondary electric power input of the electrostatic precipitator at or above the operating limits established during the performance test according to §63.7530(b) and Table 7 to 40 CFR 63 Subpart DDDDD.</p> <p>Report deviations in the monthly report.</p> <p>Note: Maintain the 30-day rolling average total secondary electric power input of the electrostatic precipitator equal to or greater than 20 kVA based on initial performance test results of 1/20/2016.</p>	<p>40 CFR Part 63.7500(a)(2) for requirement and</p> <p>Table 4 to Subpart DDDDD of Part 63 (Item 4.b) for specifics</p> <p>40 CFR Part 63.7550(a) for deviation reporting.</p>
F.21	Operations - Operating Load	<p>Maintain the 30-day average operating load such that it does not exceed 110 percent of the highest hourly average operating load established</p>	<p>40 CFR Part 63.7500(a)(2) for requirements and</p>

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
		during the applicable performance test. Report deviations in the monthly report. Note: Maintain the 30-day rolling average steaming equal to or less than 214.5 klb/hr.	Table 4 to Subpart DDDDD of Part 63 (Item 7) for specifics 40 CFR Part 63.7550(a) for deviation reporting.
F.22	O ₂	This condition does not apply if the permittee elects to show compliance with Condition F.13 using a CO CEMS. Maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen concentration established during the applicable CO performance test. Report deviations in the monthly report.	40 CFR Part 63.7500(a)(2) for requirement and Table 4 to Subpart DDDDD of Part 63 (Item 8) for specifics 40 CFR Part 63.7550(a) for deviation reporting.
F.23	Reporting	Submit compliance reports according to the frequency specified in §63.7550(b).	40 CFR Part 63.7550(a) for requirement and Table 9 to Subpart DDDDD of Part 63 (Item 1) for specifics
F.24	Site Specific Monitoring Plan	If the Permittee demonstrates compliance with any applicable emission limit through performance testing and subsequent compliance with operating limits (including the use of CPMS), or with a CEMS, or COMS, they must develop a site-specific monitoring plan according to	40 CFR Part 63.7505(d) for site specific monitoring plan; 63.7510(a)(2)(i) through (iii) for fuel analysis ; and 63.7521(b)(1) and (2) for fuel analysis specifics;

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
		<p>the requirements in paragraphs (d)(1) through (4) of this section for the use of any CEMS, COMS, or CPMS.</p> <p>This requirement does not apply to affected sources with existing CEMS or COMS operated according to the performance specification under appendix B to part 60 of this chapter and that meet the requirements of 63.7525.</p> <p>The Permittee shall develop and maintain a site-specific fuel monitoring plan meeting the requirements of §63.7521 (b)(1) and (2) only if required to conduct fuel analyses as specified in §63.7510.</p>	

G. No. 1 Power Boiler

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
G.1	Particulate	0.1 gr/dscf at 7% O ² , hourly average.	Based on calculations for maximum emissions, this boiler cannot exceed the grain loading limit when firing natural gas or fuel oil. Sulfur content limit of ≤ 2% for fuel oil is intended to indicate compliance with the particulate standard. Permittee shall keep records of receipts showing all oil fired is ≤ 2% sulfur.
			WAC 173-405-040(5)(c) for limit.

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
G.2	Particulate	229 lbs/day, annual average.	Based on calculations for maximum emissions, this boiler cannot exceed the mass loading limit when firing natural gas. When firing with fuel oil, pounds per day average value is calculated using emission factor from EPA's AP-42 (9/98) with fuel oil of $\leq 2\%$ sulfur. Report emissions annually.	Order DE 96-AQI078 for limit.
G.3	SO ₂	3025 lbs/day, annual average.	Based on calculations for maximum emissions, this boiler cannot exceed the SO ₂ mass loading limit when firing natural gas. Fuel oil may be fired at any time in the No. 1 Power Boiler, subject to the stated mass loading limit. The Permittee shall report emissions annually. Fuel oil fired cannot exceed $\leq 2\%$ sulfur content by weight. Maintain fuel receipts showing that all fuel oil fired is $\leq 2\%$ sulfur.	Order DE 96-AQI078, PSD-01-07 Amendment 1 condition 3.1 for limit.

The following **state only** requirements are not federally enforceable under the Federal Clean Air Act.

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
G.4	SO ₂	1000 ppm one hour average at 7% O ₂	EPA Method 6 is reference test method.	WAC 173-405-040(11)(b) for limit.

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
G.5	SO ₂	8750 lbs/day from No. 1 and No. 2 power boilers combined, daily average.	Based on calculations for maximum emissions, the boilers cannot exceed the combined mass loading limit when exclusively firing natural gas. When firing with fuel oil, daily average value is calculated using emission factor from AP-42 (9/98) with fuel oil of $\leq 2\%$ sulfur. Fuel oil fired cannot exceed $\leq 2\%$ sulfur content by weight. Report emissions in the monthly report. Maintain fuel receipts showing that all fuel oil fired is $\leq 2\%$ sulfur.	Order DE 96-AQI078 for limit.
G.6	SO ₂	1104 tpy from No. 1 and No. 2 power boilers combined annual average	Based on calculations for maximum emissions, the boilers cannot exceed the combined mass loading limit when exclusively firing natural gas. When firing with fuel oil, annual average value is calculated using emission factor from AP-42 (9/98) with fuel oil of $\leq 2\%$ sulfur. Fuel oil fired cannot exceed $\leq 2\%$ sulfur content by weight. Report emissions in the monthly report. Maintain fuel receipts showing that all fuel oil fired is $\leq 2\%$ sulfur.	Order DE 96-AQI078 for limit.
G.7	Tune-up	Conduct tune-up of the boiler	Subsequent tune-ups shall be performed every 5 years or as specified in §63.7540(a)(10) and Table 3. Conduct this tune-up as a work practice for regulated emissions under this subpart.	40 CFR 63.7540(a)(10) and Table 3 to Subpart DDDDD of Part 63 (Item 3) for subsequent tune-ups
G.8	Reporting		Submit compliance reports according to the frequency specified in §63.7550(b).	Table 9 to Subpart DDDDD of Part 63 (Item 1)

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)	
G.9	HCl (only applicable if fuel switching triggered and firing liquid fuel)	1.4E-03 lb per MMBtu of steam output or 1.1E-03 lb per MMBtu of heat input	EPA Method 26 or 26A is the reference method. Conduct performance test annually. If performance tests show that the emissions are at or below 75 percent of the emission limit for at least 2 consecutive years for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the Permittee may choose to conduct performance tests for the pollutant every third year. Conduct performance test within 60 days of fuel switch.	40 CFR 63.7500 (a)(1) and Table 2 to Subpart DDDDD of Part 63 (Item 14.a) for limit 40 CFR 63.7505(c) for compliance options. 40 CFR 63.7515(a) and (b) for monitoring frequency 40 CFR 63.7515(h) for fuel switch triggered performance testing 40 CFR 63.7530(c) for compliance determination through fuel analysis option
		The Permittee may also demonstrate compliance with the applicable emission limit using fuel analysis if the emission rate calculated according to §63.7530(c) is less than the applicable emission limit.		
G.10	Hg (only applicable if fuel switching triggered and firing liquid fuel)	2.5E-06 lb per MMBtu of steam output or 2.0E-06 lb per MMBtu of heat input	EPA Method 26 or 26A is the reference method. Conduct performance test annually. If performance tests show that the emissions are at or below 75 percent of the emission limit for at least 2 consecutive years for the pollutant, and if there are no changes in the operation of the individual boiler or process heater	40 CFR 63.7500 (a)(1) and Table 2 to Subpart DDDDD of Part 63 (Item 14.b) 40 CFR 63.7505(c) for compliance options.

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)	
		<p>or air pollution control equipment that could increase emissions, the Permittee may choose to conduct performance tests for the pollutant every third year.</p> <p>Conduct performance test within 60 days of fuel switch to oil.</p> <p>The Permittee may also demonstrate compliance with the applicable emission limit using fuel analysis if the emission rate calculated according to §63.7530(c) is less than the applicable emission limit.</p>	<p>40 CFR 63.7515(a) and (b) for monitoring</p> <p>40 CFR 63.7515(h) for performance testing requirement.</p>	
G.11	<p>CO</p> <p>(only applicable if fuel switching triggered and firing liquid fuel)</p>	<p>0.13 lb per MMBtu of steam output</p> <p>or</p> <p>130 ppm corrected to 3% oxygen</p>	<p>EPA Method 10 is the reference method. Conduct performance test annually. If performance tests show that the emissions are at or below 75 percent of the emission limit for at least 2 consecutive years for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the Permittee may choose to conduct performance tests for the pollutant every third year.</p> <p>Conduct performance test within 60 days of fuel switch to oil.</p>	<p>40 CFR 63.7500 (a)(1) and Table 2 to Subpart DDDDD of Part 63 (Item 15.a) for limit</p> <p>40 CFR 63.7515(a) and (b) for monitoring</p> <p>40 CFR 63.7505(c) for compliance options</p> <p>40 CFR 63.7505(d) for site-specific plan</p> <p>40 CFR 63.7515(h) for performance testing requirement.</p>
G.12	<p>Filterable PM</p> <p>(only applicable if fuel</p>	<p>9.6E-03 lb per MMBtu of steam output</p> <p>or</p>	<p>EPA Method 5 is the reference method. Conduct performance test annually. If performance tests show that the emissions are at or below 75 percent of the emission</p>	<p>40 CFR 63.7500 (a)(1) and Table 2 to Subpart DDDDD of Part 63 (Item 16.b) for limit</p>

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
switching triggered and firing light liquid fuel)	7.9E-02 lb per MMBtu of heat input	limit for at least 2 consecutive years for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the Permittee may choose to conduct performance tests for the pollutant every third year. Conduct performance test within 60 days of fuel switch to oil.	40 CFR 63.7515(a) and (b) for monitoring 40 CFR 63.7515(h) for performance testing requirement.
G.13 Filterable PM (only applicable if fuel switching triggered and firing heavy liquid fuel)	7.5E-02 lb per MMBtu of steam output or 6.2E-02 lb per MMBtu of heat input	EPA Method 5 is the reference method. Conduct performance test annually. If performance tests show that the emissions are at or below 75 percent of the emission limit for at least 2 consecutive years for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the Permittee may choose to conduct performance tests for the pollutant every third year. Conduct performance test within 60 days of fuel switch to oil.	40 CFR 63.7500 (a)(1) and Table 2 to Subpart DDDDD of Part 63 (Item 16.a) for limit 40 CFR 63.7515(a) and (b) for monitoring 40 CFR 63.7515(h) for performance testing requirement.

H. No. 2 Power Boiler

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
H.1 Particulate	0.1 gr/dscf at 7% O ₂ ,	Based on calculations for maximum emissions, this boiler	WAC 173-405-040(5)(c) for limit.

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
	hourly average.	cannot exceed the grain loading limit when firing natural gas or fuel oil. Compliance is demonstrated through normal operation. Maintain records of type of fuel used.	
H.2 SO ₂	1000 ppm one hour average at 7% O ₂	EPA Method 6. Compliance indicated by use of ≤ 2% S in fuel oil fired.	WAC 173-405-040(11)(b) for limit.

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

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
H.3 SO ₂	≤ 2% sulfur in fuel oil fired.	Fuel oil fired cannot exceed ≤ 2% sulfur content by weight. Maintain fuel receipts showing that all oil fired is ≤ 2% sulfur.	Order DE 96-AQI078 for fuel oil requirement.
H.4 SO ₂	8750 lbs/day from No. 1 and No. 2 power boilers combined, daily average.	Based on calculations for maximum emissions, the boiler cannot exceed the limit when firing exclusively natural gas. When firing with fuel oil, daily average value is calculated using emission factor from AP-42 (9/98) with fuel oil of ≤ 2% sulfur. Fuel oil fired cannot exceed ≤ 2% sulfur content by weight. Report emissions in the monthly report. Maintain fuel receipts showing that all fuel oil fired is ≤ 2% sulfur.	Order De 96-AQI078 for limit.

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
H.5	SO ₂ 1104 tpy from No. 1 and No. 2 power boilers combined annual average.	Based on calculations for maximum emissions, the boiler cannot exceed the limit when firing exclusively natural gas. When firing with fuel oil, annual average value is calculated using emission factor from AP-42 (9/98) with fuel oil of ≤ 2% sulfur. Fuel oil fired cannot exceed ≤ 2% sulfur content by weight. Report emissions in the monthly report. Maintain fuel receipts showing that all fuel oil fired is ≤ 2% sulfur.	Order DE 96-AQI078 for limit.
H.6	Tune-up Conduct tune-up of the boiler	Subsequent tune-ups shall be performed every 5 years or as specified in §63.7540(a)(10) and Table 3. Conduct this tune-up as a work practice for regulated emissions under this subpart.	40 CFR 63.7540(a)(10) and Table 3 to Subpart DDDDD of Part 63 (Item 3) for subsequent tune-ups
H.7	Reporting	Submit compliance reports according to the frequency specified in §63.7550(b).	Table 9 to Subpart DDDDD of Part 63 (Item 1) for reporting.
H.8	HCl (only applicable if fuel switching triggered and firing liquid fuel) 1.4E-03 lb per MMBtu of steam output or 1.1E-03 lb per MMBtu of heat input	EPA Method 26 or 26A is the reference method. Conduct performance test annually. If performance tests show that the emissions are at or below 75 percent of the emission limit for at least 2 consecutive years for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the Permittee may choose to conduct performance tests for the pollutant every third year.	40 CFR 63.7500 (a)(1) and Table 2 to Subpart DDDDD of Part 63 (Item 14.a) for limit 40 CFR 63.7505(c) for compliance options. 40 CFR 63.7515(a) and (b) for monitoring frequency 40 CFR 63.7515(h) for fuel switch

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)	
		<p>Conduct performance test within 60 days of fuel switch.</p> <p>The Permittee may also demonstrate compliance with the applicable emission limit using fuel analysis if the emission rate calculated according to §63.7530(c) is less than the applicable emission limit.</p>	<p>triggered performance testing</p> <p>40 CFR 63.7530(c) for compliance determination through fuel analysis option</p>	
H.9	<p>Hg</p> <p>(only applicable if fuel switching triggered and firing liquid fuel)</p>	<p>2.5E-06 lb per MMBtu of steam output</p> <p>or</p> <p>2.0E-06 lb per MMBtu of heat input</p>	<p>EPA Method 26 or 26A is the reference method. Conduct performance test annually. If performance tests show that the emissions are at or below 75 percent of the emission limit for at least 2 consecutive years for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the Permittee may choose to conduct performance tests for the pollutant every third year.</p> <p>Conduct performance test within 60 days of fuel switch to oil.</p> <p>The Permittee may also demonstrate compliance with the applicable emission limit using fuel analysis if the emission rate calculated according to §63.7530(c) is less than the applicable emission limit.</p>	<p>40 CFR 63.7500 (a)(1) and Table 2 to Subpart DDDDD of Part 63 (Item 14.b) for limit</p> <p>40 CFR 63.7505(c) for compliance options.</p> <p>40 CFR 63.7515(a) and (b) for monitoring</p> <p>40 CFR 63.7515(h) for performance testing</p>
H.10	<p>CO</p> <p>(only applicable if fuel)</p>	<p>0.13 lb per MMBtu of steam output</p>	<p>EPA Method 10 is the reference method. Conduct performance test annually. If performance tests show that the emissions are at or below 75 percent of the emission</p>	<p>40 CFR 63.7500 (a)(1) and Table 2 to Subpart DDDDD of</p>

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)	
switching triggered and firing liquid fuel)	or 130 ppm corrected to 3% oxygen	limit for at least 2 consecutive years for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the Permittee may choose to conduct performance tests for the pollutant every third year. Conduct performance test within 60 days of fuel switch to oil.	Part 63 (Item 15.a) for limit 40 CFR 63.7515(a) and (b) for monitoring 40 CFR 63.7505(c) for compliance options 40 CFR 63.7505(d) for site-specific plan 40 CFR 63.7515(h) for performance testing	
H.11	Filterable PM (only applicable if fuel switching triggered and firing light liquid fuel)	9.6E-03 lb per MMBtu of steam output or 7.9E-02 lb per MMBtu of heat input	EPA Method 5 is the reference method. Conduct performance test annually. If performance tests show that the emissions are at or below 75 percent of the emission limit for at least 2 consecutive years for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the Permittee may choose to conduct performance tests for the pollutant every third year. Conduct performance test within 60 days of fuel switch to oil.	40 CFR 63.7500 (a)(1) and Table 2 to Subpart DDDDD of Part 63 (Item 16.b) for limit 40 CFR 63.7515(a) and (b) for monitoring 40 CFR 63.7515(h) for performance testing
H.12	Filterable PM (only applicable if fuel	7.5E-02 lb per MMBtu of steam output or	EPA Method 5 is the reference method. Conduct performance test annually. If performance tests show that the emissions are at or below 75 percent of the emission limit for at least 2 consecutive	40 CFR 63.7500 (a)(1) and Table 2 to Subpart DDDDD of Part 63 (Item 16.a) for limit

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
switching triggered and firing heavy liquid fuel)	6.2E-02 lb per MMBtu of heat input	<p>years for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the Permittee may choose to conduct performance tests for the pollutant every third year.</p> <p>Conduct performance test within 60 days of fuel switch to oil.</p>	<p>40 CFR 63.7515(a) and (b) for monitoring</p> <p>40 CFR 63.7515(h) for performance testing</p>

I. No. 1 and No. 2 M&D Digesters; No. 1 and No 2. Evaporator Sets and Concentrators

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

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
I.1	TRS	Treat all collectible noncondensable gas (NCG) to reduce TRS emissions equal to reduction achieved by thermal oxidation in a lime kiln.	Record the number of hours that NCGs generated were not combusted each month. Report periods of such noncombustion monthly. Periods of noncombustion arising from the need to prevent loss of life or limb are not subject to this requirement and need not be considered in determining total monthly periods of noncombustion. Continuously monitor pressure differentials throughout collection system. ^{11,14}	WAC 173-405-040(4) for TRS treatment WAC 173-401-615(1)(c); WAC 173-400-105(7) for CMS data recovery.

J. KAMYR Digester and No. 3 Evaporator Set

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
J.1	TRS	Combust collectible noncondensable gas (NCG) at a minimum temperature of 1,200°F for at least 0.5 seconds.	Record all periods during which NCGs generated were not combusted. Report periods of such noncombustion monthly. By intrinsic design, the NCG incineration units (Hog Fuel Boiler and Lime Kiln) meet the temperature and residence time requirements. ^{11,13,14}	40 CFR 60.283(a)(1)(iii) for NCG combustion WAC 173-401-615(1)(c); WAC 173-400-105(7) for CMS data recovery.

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

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
J.2 TRS	Treat all collectible noncondensable gas (NCG) to reduce TRS emissions equal to reduction achieved by thermal oxidation in a lime kiln.	Record all periods during which NCGs generated were not combusted. Report periods of such noncombustion monthly. Continuously monitor pressure differentials throughout collection system. ^{11,14}	WAC 173-405-040(4) for TRS treatment WAC 173-401-615(1)(c); WAC 173-400-105(7) for CMS data recovery.

K. Chlorine Dioxide Generation Unit

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

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
K.1 Chlorine and chlorine dioxide from R8 Vent Gas Scrubber	Maximum chilled water temperature of 50°F, hourly average	Monitor new No. 3 (York) Chiller chilled water temperature continuously as a performance indicator. If chilled water temperature exceeds 50°F based on an hourly average, Permittee will take corrective action within 72 hours. Report only deviations in the monthly report. ^{11,14}	Order DE 96-AQI078 for temperature limit and monitoring. WAC 173-401-615(1)(c) for additional monitoring and corrective action specifics; WAC 173-400-105(7) for CMS data recovery.

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
K.2	Chlorine and chlorine dioxide from R8 Tail Gas Scrubber	Minimum scrubbing liquid pH hourly average.	Monitor scrubber pH continuously as a performance indicator. If scrubbing liquid pH falls below 12.2 based on an hourly average, Permittee will take corrective action within 72 hours. Report only deviations in the monthly report. ^{11,14} Scrubber pH based on June 2012 performance test results.	Order DE 96-AQI078 for pH monitoring. WAC 173-401-615(1)(c) for monitoring and corrective action specifics: WAC 173-400-105(7) for CMS data recovery.
K.3	Chlorine and chlorine dioxide from R8 Tail Gas Scrubber	Scrubbing liquid volumetric flow rate, hourly average	Maintain the recirculation scrubbing liquid flow at the minimum at 50 gallons per minute as a performance indicator. If scrubbing liquid flow rate falls below 50 gallons per minute based on an hourly average, Permittee will take corrective action within 72 hours. Report only deviations in the monthly report. ^{11,14} Scrubber flow based on June 2012 performance test results.	Order DE 96-AQI078 for monitoring. WAC 173-401-615(1)(c) for monitoring and corrective action specifics; WAC 173-400-105(7) for CMS data recovery

L. Cyclone Box Clipping Collection System

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
L.1	Particulate	11.64 tpy, annual average.	Install and maintain a pressure drop measurement device on the baghouse. Record instantaneous baghouse pressure drop reading at least once per day. Maintain baghouse pressure drop \leq 4 inches H ₂ O as performance indicator. Develop and follow O&M manual for PM collection system.	Order DE 95AQI-84 modification 3 for particulate limit, O&M, and inspection log requirement. 40 CFR 64.2 and 64.6 through 64.9 for respective PM

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
L.2		Maintain a log of daily collection system inspections. Initiate corrective action within 72 hours when daily pressure drop reading exceeds 4 inches. Report deviations/excursion and corrective action in the monthly report. ^{4,5,6}	CAM monitoring and reporting/recordkeeping applicability.
	Average 20% for more than six consecutive minutes in any 60 minute period	EPA Method 9 is the reference test method. Ongoing compliance indicated by monitoring specified in Condition L.1.	WAC 173-405-040(6) for basis of opacity limit WAC 173-401-615 for monitoring 40 CFR 64.2 and 64.6 through 64.9 for respective PM CAM monitoring and reporting/recordkeeping applicability.

M. Bleach Plant

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
M.1.a	No visible defects in enclosure openings and closed vent system components.	Perform monthly visual inspection of each enclosure opening and closed vent system component as specified in 40 CFR 63.453(k). If an inspection identifies visible defects or if enclosure openings are not maintained at negative pressure, then the following corrective actions shall be taken. Make a first effort to repair or correct the closed vent system as	40 CFR 63.453(k)(1) and (2) for monthly visual inspection. 40 CFR 63.453(k)(6) for CA. 40 CFR 63.453(b)(ii) for repair requirements.

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)	
		<p>soon as practicable, but no later than five calendar days after the problem has been 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 it is determined that the emissions resulting from the immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process shutdown.</p>		
M.1.b	<p>Total chlorinated HAP (not including chloroform)</p>	<p>Enclose, collect, and treat all gases vented from each bleaching stage where chlorinated compounds are introduced (D₀, D-1, and D-2 stage equipment).</p>	<p>Record all periods during which bleach plant vent gases were not collected and treated each month. Report periods of such nontreatment monthly.^{11,12}</p>	<p>WAC 173-400-075(5) incorporates MACT by reference.</p> <p>40 CFR 63.445(b) for chlorinated HAP management requirements 40 CFR 63.456 for affirmative defense.</p> <p>WAC 173-401-615(1)(c); WAC 173-400-105(7); 40 CFR 63.8(c)(4) for CMS data recovery.</p>
M.1.c	<p>Total chlorinated HAP (not including chloroform)</p>	<p>Treat bleach plant vent gases to achieve a scrubber outlet</p>	<p>Operation of the scrubber outside the range established for operating parameter values shall constitute a violation of the applicable emission standard and shall be</p>	<p>WAC 173-400-075(5) incorporates MACT by reference.</p>

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
	concentration of 10 parts per million or less by volume as measured as Chlorine.	reported as excess emissions in the monthly report.	40 CFR 63.445(c) for HAP limit. 40 CFR 63.456 for affirmative defense.
M.1.d	Performance Testing Requirement	Conduct repeat performance test at five year intervals for emission sources subject to the limitations in 63.443, 63.444, and 63.445. The first of the 5 year repeat tests must be conducted by September 7, 2015, and thereafter within 60 months from the date of the previous performance test.	40 CFR 63.457(a)(1) and (2) for performance testing. Final rule adoption Sept. 11, 2012.
M.2.a	Operation	Monitor scrubber fan motor function (on/off) continuously as a performance indicator. If fan motor ceases operation as indicated by motor function based on a three-hour block average, Permittee will initiate corrective action within 24 hours. Report only deviations in the monthly report. ^{11,12}	40 CFR 63.453(m) and WAC 173-400-075(5) (incorporates MACT by reference) for alternate operating parameter. WAC 173-401-615(1)(c); WAC 173-400-105(7); and 40 CFR 63.8(c)(4) for CMS data recovery.
M.2.b	Operation	Monitor scrubber medium ORP continuously as a performance indicator. If scrubbing medium ORP operating parameter is not maintained, based on a three hour block average, Permittee will initiate corrective action within 24 hours. Report only deviations and corrective actions in the monthly report. ^{11,12}	40 CFR 63.453(m) and WAC 173-400-075(5) (incorporates MACT by reference) for alternate operating parameter. WAC 173-401-615(1)(c); WAC 173-400-105(7); and 40 CFR 63.8(c)(4)

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)	
		Note: Maintain ORP at ≤ -312 mv when using white liquor scrubbing medium or ≤ -54 mv when using pink liquor scrubbing medium based on initial performance test results of 8/20/2015.	for CMS data recovery.	
M.2.c	Total chlorinated HAP (as chlorine)	Minimum operating condition	<p>Maintain the recirculation scrubbing liquid flow rate at or above the established minimum operating parameter value as a performance indicator. If scrubbing liquid flow rate falls below the established minimum flow rate based on a three hour block average, Permittee will initiate corrective action within 24 hours. Report only deviations and corrective actions in the monthly report. ^{11,12}</p> <p>Note: Maintain scrubber flow rate ≥ 400 gpm based on initial performance test results of 8/20/2015.</p>	<p>40 CFR 63.453(m) and WAC 173-400-075(5) (incorporates MACT by reference) for alternate operating parameter.</p> <p>WAC 173-401-615(1)(c); WAC 173-400-105(7); 40 CFR 63.8(c)(4) for CMS data recovery.</p>
M.3	Total chlorinated HAP (as chlorine)	Collect all gases vented from each bleaching stage where chlorinated compounds are introduced (D ₀ , D-1, and D-2 stage equipment).	<p>Conduct annual performance test on negative pressure closed vent system using procedures specified in 40 CFR 63.457(e). Report test results within 60 days of conducting test.</p> <p>Perform monthly visual inspection of closed vent system components as specified in 40 CFR 63.453(k).</p>	<p>40 CFR 63.445(b) and WAC 173-400-075(5) (incorporates MACT by reference) for chlorinated HAP management requirement.</p> <p>40 CFR 63.453(k) for monthly visual inspection.</p>
M.4	Chloroform	The Permittee shall use no hypochlorite or chlorine for bleaching in	Report deviations and corrective actions in the monthly report.	40 CFR 63.445(d) and WAC 173-400-075(5) (incorporates MACT by reference)

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
	the bleaching systems or line.		for effluent limitation.

N. LVHC Collection and Incineration System

(Includes KAMYR Digester, NSSC Digester, and No. 1 and No. 2 M&D Digesters; No. 1, No. 2, and No. 2 Evaporator Sets and Concentrators; and Foul Condensate Collection Tank)

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
N.1	Total HAP emissions	Enclose, collect, and treat all vent gases from LVHC equipment systems.	Record all periods during which LVHC gases were not collected and treated each month. Report periods of such nontreatment monthly.	40 CFR 63.443(c) and WAC 173-400-075(5) (incorporates MACT by reference) for HAP management. 40 CFR 63.456 for affirmative defense.
N.2	Total HAP emissions	Collect LVHC gases in closed vent system.	Conduct annual performance tests on closed vent systems using the referenced procedures annually. Report test results within 60 days of conducting performance test. Perform monthly visual inspection of closed vent system components as specified in 40 CFR 63.453(k).	40 CFR 63.443(c) and WAC 173-400-075(5) (incorporates MACT by reference) for HAP management requirement. 40 CFR 63.453(k) for monthly visual inspection.
N.3	Total HAP emissions	Treat LVHC vent gases to reduce total HAP emissions using hog fuel boiler, lime	Record all periods during which LVHC gases are combusted in each control device. Report periods during which LVHC gases are vented to the atmosphere before control in the monthly report. Venting of LVHC gases	40 CFR 63.443(d)(4) and WAC 173-400-075(5) (incorporates MACT by reference) for HAP

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
	kiln, by introducing the HAP emission stream with the primary fuel or into the flame zone.	from main bypass vent valves for periods in excess of 1% of total operating time shall constitute a violation of the applicable emission standard. ^{11,12}	management options and specifications. 40 CFR 63.456 for affirmative defense. WAC 173-401-615(1)(c); WAC 173-400-105(7); and 40 CFR 63.8(c)(4) for CMS data recovery.

O. Pulping Condensate Collection and Treatment System

(Includes KAMYR Digester; No. 1 and No. 2 M&D Digesters; No. 1, No. 2, and No. 3 Evaporator Sets; and LVHC and Foul Condensate Collection Tanks)

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
O.1	Total HAP emissions	Enclose, collect, and convey pulping condensates from the identified equipment systems to the wastewater treatment plant.	Manage, inspect, and maintain records and conduct repairs as necessary. Record all periods during which identified condensate streams were not collected or treated each month, and conduct monthly closed collection system inspections.	40 CFR 63.960-966 and WAC 173-400-075(5) (incorporates MACT by reference) for hard piping management requirements. 40 CFR 63.446(d) for tie in to 40 CFR 63.960-962
O.2	Total HAPs collected	Collect condensates from the applicable equipment systems	Record kraft pulp production (in oven dry tons of unscreened brownstock) and volumetric flow rates for each condensate stream collected on a daily basis.	WAC 173-400-075(5) (incorporates MACT by reference); 40 CFR 63.446(b) specifies equipment systems

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)	
	named such that the total collected HAP mass contains 11.1 pounds or more per ton of oven dry pulp (for mills that perform bleaching), 15 day rolling average.	On a daily basis, calculate the following: (a) Total HAP collected using the HAP emission factors from the initial condensate characterization study and the daily volumetric flows of collected condensate streams. (b) Total HAP collected during the previous 15 day period. (c) Total kraft pulp production during the previous 15 day period. (d) Total HAP per ODTP by dividing total HAP collected during day period by the total kraft pulp production during the 15 day period. Composite samples shall be analyzed for total HAP using EPA Method 305, NCASI DI/MeOH 94.02, or an alternative method approved by EPA.	for collection requirement, (c)(3) specifies HAP collection requirement, (e)(2) for CCA. 40 CFR 63.456 for affirmative defense.	
O.3	Total HAPs collected	Collect at least 11.1 lbs of HAP per oven dry ton of unscreened kraft brownstock, 15 day rolling average.	Maintain the collected HAP mass above the minimum 11.1 lbs/ODTP as a performance indicator. If collected HAP mass falls below 11.1 lbs/ODTP based on a 15 day rolling average, Permittee will initiate corrective action within 24 hours. Report only deviations and corrective actions in the monthly report.	40 CFR 63.446(c) and WAC 173-400-075(5) (incorporates MACT by reference) for HAP collection number. 40 CFR 63.453(m) and (n) for CCA surrogate performance indicator requirements.
O.4	Total HAPs treated	Treat collected pulping	Record inlet regulated foul condensate liquid flow and nominal applied aerator	40 CFR 63.446(e) and WAC 173-400-075(5) (incorporates

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
	<p>condensates to achieve the following:</p> <p>At mills that perform bleaching, treat the pulping process condensates to remove 10.2 or more pounds of HAP per ton of oven dry pulp.</p>	<p>horsepower and blower horsepower. Perform the percent reduction test procedure specified in 40 CFR 63.457(l) within 45 days after the beginning of each quarter. Report test results within 60 days of conducting percent reduction test.</p> <p>The Permittee shall comply with conditions O.5 and O.6 for minimum O&M requirements intended to indicate compliance with the limit for treating HAP in the pulping condensates. Operation below minimum operating parameter values shall require the Permittee to perform the percent reduction test procedure specified in 40 CFR 63.457(l). Report only deviations determined from the percent reduction test procedure in the monthly report.</p> <p>To establish or re-establish the value for each operating parameter required to be monitored by O.5 and O.6, the Permittee shall use the procedures described in 40 CFR 63.453(n).⁹</p>	<p>MACT by reference) for treatment options.</p> <p>40 CFR 63.453(j) for monitoring and performance testing, (n) for operating parameter requirements, (p) for operating parameter excursion specifications.</p> <p>40 CFR 63.456 for affirmative defense.</p>
O.5 Total HAPs treated	Minimum operating condition	If the 15 day rolling average condensate treatment falls below 10.2 lbs per ton kraft pulp, Permittee will perform the percent reduction test procedure specified in 40 CFR 63.457(l) as soon as practical. ⁹	WAC 173-400-075(5) (incorporates MACT by reference); 40 CFR 63.453(j) for performance parameter requirements and (p) for performance

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
			parameter excursion specification.
O.6 Performance parameter	Minimum operating condition	Maintain the total aerator horsepower days above the established minimum aerator horsepower days as a performance indicator. If total aerator horsepower days fall below the established minimum parameter value based on a 15 day rolling average, Permittee will perform the percent reduction test procedure specified in 40 CFR 63.457(l) as soon as practical. ⁹ Note: Minimum HP set at 63,686 HP/day based on September 2008 performance test.	WAC 173-400-075(5) (incorporates MACT by reference); 40 CFR 63.453(j) for performance parameter requirements and (p) for performance parameter excursion specification.

P. Clean Condensate Alternative (CCA)

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
P.1 Total HAP emissions	Reduce HAP emissions (as methanol) at the levels established in the CCA.	Report periods of condensate non-collection for the CCA in excess of 4% of total operating time in the semiannual reporting period, non-collection beyond 4% of total operating time shall constitute a violation of the applicable emission standard.	40 CFR 63.443(e)(2) for excess emission allowance. 40 CFR 63.456 for affirmative defense.
P.2.a Total HAP emissions	Perform IPT	Permittee will perform an IPT which will establish both HAPs collection and destruction parameters (completed and submitted 6/16/06).	WAC 173-400-075(5) (incorporates MACT by reference); 40 CFR 63.443(c) for HAP control requirement

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
P.2.b			and 40 CFR 63.447 for CCA alternative.
	Total HAP emissions	The Wallula CCA requires the mill to enclose, collect, and convey pulping condensates from the identified equipment systems to the wastewater treatment system as an approved alternative to HVLC controls. Discharge the pulping process condensate below the liquid surface of a biological treatment system that reduces or destroys total HAPs.	Permittee will establish levels of collection and biodegradation of HAPs (as methanol) in the wastewater treatment plant during the CCA initial performance test. Report test results within 60 days of conducting a performance test (completed and submitted 6/16/06).
P.3	HAP CCA Operational Parameter	Establish the level of over collection required to meet the CCA requirements of 40 CFR 63.447 proposed in the Wallula CCA plan.	Maintain the collected HAP mass above the minimum as outlined in the CCA as a performance indicator. If collected HAP mass falls below the established minimum, based on a 15 day average, Permittee will initiate corrective action within 24 hours. Report only
			40 CFR 63.447 for CCA alternative

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
			deviations and corrective actions in the monthly report.	
P.4	HAP CCA Operational Parameter	Confirm operational parameter	Record daily inlet liquid flow and nominal applied aerator horsepower and blower horsepower.	40 CFR 63.447 for CCA alternative. 40 CFR 63.453(j)(2) for alternative site specific parameter monitoring. WAC 173-401-615(1)(c); WAC 173-400-105(7); and 40 CFR 63.8(c)(4) for CMS data recovery.
P.5	HAP CCA Operational Parameter	Permittee shall not use segregated condensate on brownstock washers or deckers.	Permittee shall continuously monitor segregated condensate collection status to demonstrate that condensates are not used in brownstock washers or deckers and certify once per year that segregated condensate will not be used in brownstock washers or deckers. ^{11,12}	40 CFR 63.447(b)-(h) for CCA alternative requirements. WAC 173-401-615(1)(c); WAC 173-400-105(7); and 40 CFR 63.8(c)(4) for CMS data recovery.
P.6.a	HAP CCA Operational Parameter	Record-keeping	Permittee shall maintain all CCA compliance demonstration records, testing, and reporting for a period not less than five years.	40 CFR 63.10(b) for record review.
P.6.b	HAP CCA Operational Parameter	IPT Plan submittal date	Permittee will submit an IPT plan for approval by Ecology at least 60 days prior to execution.	40 CFR 63.9(e) for approval review.

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
P.6.c	HAP CCA Operational Parameter	IPT implementation date	Permittee will execute IPT plan and submit results to Ecology within 60 days of the completion of the IPT. (submitted 6/16/06)	40 CFR 63.7(g) for reporting deadline
P.6.d	HAP CCA Operational Parameter	Confirm over collection	Permittee shall perform the IPT to confirm that collected and treated condensate methanol levels are not more than 35% below initial levels proposed in the CCA emissions study and contained in the mill's CCA final proposal.	40 CFR 63.447 for CCA
P.6.e	HAP CCA Operational Parameter	Conditional compliance demonstration	If the IPT results were more than 35% below initial levels proposed in the CCA emissions study and contained in the mill's CCA final proposal, the mill shall again conduct testing of HVLC vent emission points and complete and submit a CCA methanol emissions study to demonstrate compliance with the CCA regulation. This study shall serve as the mill's demonstration of compliance.	40 CFR 63.447 for CCA
P.6.f	HAP CCA Operational Parameter	Condensate over collection	The Permittee shall investigate, take corrective action, and retest if the 15 day rolling average of condensate collection (lbs methanol per ton of kraft pulp) falls below the threshold established in the IPT.	40 CFR 63.447 for CCA

Q. Landfill/Compost Operation

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
Q.1	Particulate fugitive dust	Minimum Operating condition	The Permittee shall comply with Landfill/Compost Dust control plan after the implementation date specified in the order establishing the dust control plan. This order is part of the SIP maintenance plan for the local air shed.	Order No. 1614-AQ04 for dust control plan requirement

R. Reciprocating Internal Combustion Engines (RICE) MACT

40 CFR 63 Subpart ZZZZ (Table 2c) applies to the following emergency engines:

- 318 HP Detroit diesel CI engine; Last rebuilt in 1986; Used to drive an emergency backup fire water pump.
- 318 HP Detroit diesel CI engine; Last rebuilt in 1998; Used to drive an emergency backup mill process water pump.
- 200 HP Ford propane SI backup generator; manufactured in April 2004; backup generator for providing electricity to the main office.

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
R.1	HAPs		Change the oil and filter every 500 hours of operation or annually, whichever comes first. Inspect the air cleaner and/or spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	40 CFR 63 Subpart ZZZZ Table 2c for maintenance requirements
R.2	Operations		Minimize the engine's time spent at idle and minimize the engine's	40 CFR 63.6625(h) for minimizing

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
		startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.	idling and startup time
R.3	100 hour operations	<p>There is no time limit on the use of emergency stationary RICE in emergency situations.</p> <p>Emergency RICEs may operate for up to 100 hours per year for maintenance checks and readiness testing or other periods defined in 40 CFR 63.6640(f).</p> <p>Emergency RICE's may operate for up to 50 hours per year in non-emergency situations not mentioned above. This time will count toward the 100 hours per year previously mentioned.</p>	40 CFR 63.6640(f) for emergency RICE operation requirements
R.4	Record-keeping	<p>Copies of each notification and report submitted for compliance must be kept.</p> <p>Document the occurrence and duration of each malfunction of operation.</p> <p>Records of performance tests and evaluations must be kept.</p> <p>Document actions taken during periods of malfunction to minimize emissions and the corrective actions to restore malfunctioning processes.</p> <p>Records must be retained of the operation and maintenance of the</p>	40 CFR 63.6655 for recordkeeping requirements

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
		<p>engines according to the manufacturer's emission related instructions or according to the developed maintenance plan consistent with good air pollution control practice for minimizing emissions.</p> <p>Records of the hours of operation of the engine that is recorded through the non-resettable hour meter must be maintained. Records must include how many hours are spent for emergency operation; including what classified the operation as an emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, maintain records of the notification of the emergency situation and the time the engine was operated as part of demand response.</p>	

40 CFR 63 Subpart ZZZZ applies to the following non-emergency CI engine:

- 195 HP Detroit diesel CI engine; Installed in 1992; Used to drive a backup fire water pump.

R.5

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
CO	230 ppmvd at 15% O ₂	<p>EPA Method 10 is the reference method. Initial performance test with three 1 hour test runs.</p> <p><i>Note: The performance test was performed on February 17, 2015</i></p>	<p>40 CFR 63 Subpart ZZZZ Table 2c Item 3 for limit.</p> <p>40 CFR 63.6612 and 40 CFR 63 Subpart</p>

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
		<i>and showed CO emissions of 78 ppm @ 15% O₂. No subsequent compliance test specified in 40 CFR 63 Subpart ZZZZ.</i>	ZZZZ Table 4 Item 3 and Table 5 Item 12 for compliance demonstration.
R.6	Record-keeping	<p>Copies of each notification and report submitted for compliance must be kept.</p> <p>Document the occurrence and duration of each malfunction of operation.</p> <p>Records of performance tests and evaluations must be kept.</p> <p>Document actions taken during periods of malfunction to minimize emissions and the corrective actions to restore malfunctioning processes.</p> <p>Records must be retained of the operation and maintenance of the engines according to the manufacturer's emission related instructions or according to the developed maintenance plan consistent with good air pollution control practice for minimizing emissions.</p>	40 CFR 63.6655 for recordkeeping requirements

40 CFR 60 Subpart JJJJ applies to the following 4 stroke lean burn non-emergency SI engine:

- 80 HP Engine Distributors, Inc. Model MSG-425; manufactured in 2016; Used to drive the lime kiln when the electric drive is offline.

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
R.7	HC + NO _x , and CO	(HC + NOX) ≤3.8 g/kW-hr CO ≤31.0 g/kW-hr (HC + NOX) × CO ^{0.791} ≤16.78	Compliance is demonstrated through manufacturer certification and operating and maintaining the certified stationary SI internal combustion engine and control device according to the manufacturer's emission related written instructions.	40 CFR 1048.101(c)(3) for limit. 40 CFR 60.4243 for compliance demonstration.
R.8	Record-keeping		The following documentation shall be maintained: Notifications of compliance submitted along with all supporting documentation of the notification. All records of maintenance conducted on the engine. Manufacturer certification that the engine is certified to meet the applicable emission standards.	40 CFR 60.4245(a) for recordkeeping requirements

40 CFR 60 Subpart JJJJ applies to the following emergency engine:

- 97 HP Generac propane SI backup generator; manufactured in August 2013; backup generator for providing electricity to the R8 generator.

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
R.9	CO	519 g/KW-hr (387 g/HP-hr)	Compliance is demonstrated through manufacturer certification and operating and maintaining the certified stationary SI internal combustion engine and control device according to the manufacturer's emission related written instructions.	40 CFR 60.4233(d) and 40 CFR 60 Subpart JJJJ Table 1 for limit 40 CFR 60.4243 for compliance demonstration.

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting¹	Applicable Requirement(s)
R.10	HC + NO _x	13.4 g/KW-hr (10g/HP-hr)	<p>Compliance is demonstrated through manufacturer certification and operating and maintaining the certified stationary SI internal combustion engine and control device according to the manufacturer's emission related written instructions.</p> <p>Maintain records of maintenance.</p>	<p>40 CFR 60.4233(d) and 40 CFR 60 Subpart JJJJ Table 1 for limit</p> <p>40 CFR 60.4243 for compliance demonstration.</p> <p>40 CFR 60.4243(a)(1) for maintenance recordkeeping.</p>
R.11	Operations		Install a non-resettable hour meter upon startup of the emergency engine.	40 CFR 60.4237(c) for hour meter requirement
R.12	Operations		<p>There is no time limit on the use of emergency stationary RICE in emergency situations.</p> <p>Emergency RICEs may operate for up to 100 hours per year in for maintenance checks and readiness testing or other periods defined in 40 CFR 60.4243(d)(2).</p> <p>Emergency RICEs may operate for up to 50 hours per year in non-emergency situations not mentioned above. This time will count toward the 100 hours per year previously mentioned.</p>	40 CFR 60.4243(d) for emergency RICE operations
R.13	Record-keeping		<p>The following documentation shall be maintained:</p> <p>Notifications of compliance submitted along with all supporting documentation of the notification.</p>	40 CFR 60.4245(a) for recordkeeping requirements

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting ¹	Applicable Requirement(s)
		All records of maintenance conducted on the engine. Manufacturer certification that the engine is certified to meet the applicable emission standards.	

S. NESHAP General Recordkeeping and Reporting, Startup, Shutdown, and Malfunction (SSM), and Affirmative Defense Requirements

See the emission unit specific section of the permit for emission unit applicability.

NESHAP SSM Plan Requirements:

- S.1. The Permittee shall develop and implement a written startup, shutdown, and malfunction (SSM) plan that describes, in detail, procedures for operating and maintaining the applicable emission units subject to 40 CFR Part 63 Subpart MM, including: #2 Recovery Furnace, #3 Recovery Furnace, #2 SDT, #3 SDT and Lime Kiln during SSM periods, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with 40 CFR 63 Subpart MM standards. The SSM plan shall include the elements set forth in 40 CFR 63.6(e)(3). [40 CFR 63.6(e)(3)(i) and 63.866, 4/20/06]
- S.2. During SSM periods, The Permittee shall operate and maintain the affected sources (including, associated air pollution control equipment) in accordance with the SSM plan. Malfunctions shall be corrected as soon as possible after their occurrence in accordance with the SSM plan. [40 CFR 63.6(e)(3)(i), 4/20/06]
- S.3. The Permittee shall change the SSM plan if required by Ecology if it is determined to be unacceptable under 40 CFR 63.6(e)(3)(vii). [40 CFR 63.6(e)(3)(vii), 4/20/06]
- S.4. The Permittee shall update the SSM plan within 45 days of an SSM event that the plan failed to address or inadequately addressed. [40 CFR 63.6(e)(3)(viii), 4/20/06]

NESHAP Recordkeeping Requirements:

- S.5. NESHAP Subparts S & MM Record Retention – maintain files of all information (including all reports and notifications) required by 40 CFR Part 63, Subparts S and 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. [40 CFR 63.10(b)(1) and 40 CFR 63.6(e)(3)(v)]

- S.6. Keep the SSM Plan on record to be made available for inspection, upon request, by Ecology or the 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 Ecology or the EPA, for five years following each revision of the Plan. [40 CFR 63.10(b)(1) and 63.6(e)(3)(v)]

NESHAP Reporting Requirements:

- S.7. 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 Subpart 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 MM excess emissions and/or parameter monitoring exceedances 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 63.10(d)(5)(ii) and WAC 173-401-615(3)]
- S.8. Semiannual NESHAP Subparts S and MM Summary Report. The monthly CEM reports filed (by July 30th and January 30th) for the months of June and December shall include a semiannual 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 63.10(e)(3) and WAC 173-401-615(3)]
- Semiannual SSM Report. If actions taken during SSM events were consistent with the procedures in the Permittee's SSM plan, the semiannual report shall include a statement to that effect. [40 CFR 63.10(d)(5)(i) and WAC 173-401-615(3)]
- S.9. Comply with NESHAP General Reporting. [40 CFR 63.10(b) and (c)]
- S.10. Every two years beginning April 15, 1999, submit a non-binding control strategy report in accordance with applicable requirements. [40 CFR 63.455(a); 40 CFR 63.445(b)(1) through (b)(3) and 40 CFR Part 63 Subpart A, Section 63.9(b)(2)]
- S.11. In addition to the requirements specified in §63.6(e)(3), the SSM Plan for Subpart MM sources must include: procedures to determine and record the cause of an operating parameter exceedance and the time the exceedance began and ended; corrective actions to be taken in the event of an operating parameter exceedance, including procedures for recording the actions taken to correct the exceedance; a

maintenance schedule for each control technique and recommendations for routine and long term maintenance; and an inspection schedule for each continuous monitoring system required under §63.864 to ensure, at least once in each 24 hour period, that each continuous monitoring system is properly functioning. [40 CFR 63.866(a)]

NESHAP Affirmative Defense:

- S.12. Permittee shall maintain records of all malfunctions as defined in 40 CFR 63.2 of the applicable emission units subject to 40 CFR Part 63 Subpart S including: LVHC System, HVLC/CCA System, and Bleach Plant System. These malfunctions shall be reported to Ecology on a semiannual basis. Permittee may elect to claim an affirmative defense in any enforcement action for violations of the emissions standard caused by malfunctions. [40 CFR 63.454(g) for recordkeeping, 40 CFR 63.455(g) for reporting requirement, 40 CFR 63.456 for affirmative defense (09/11/2012)] ***Note: EPA is currently reconsidering and may revise in the future SSM and Affirmative Defense rules. The AOP always defers to the actual wording of the cited regulation as currently in effect.***

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. Emissions Detrimental to Persons or Property. 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(6)]
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(8)]
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(4)(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(9)(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(3)]
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 and enjoyment of property must use recognized good practice and procedures to reduce odors to a reasonable minimum. [WAC 173-400-040(5)]
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. Credible Evidence. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of the applicable requirements cited in this requirement, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. [40 CFR 51.212; 40 CFR 52.12; 40 CFR 52.33; 40 CFR 60.11; 40 CFR 61.12]
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)]
13. Chemical Accidental Release Program. This stationary source, as defined in 40 CFR part 68.3, is subject to Part 68, the accidental release prevention regulations. This stationary source shall submit a risk management plan (RMP) by date specified in section 68.10. This stationary source shall certify compliance with the requirements of part 68 as part of the annual compliance certification as required by 40 CFR Part 70 or 71. [40 CFR Part 68.3]
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 or 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, capacities, and vapor pressure of contents of all storage vessels having capacities greater than or equal to 75 cubic meters or vapor pressure of contents greater than or equal to 3.5 kPa 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(1). [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]
19. Mill Derived Solid Waste. The following condition is **state only** and is not federally enforceable under the Clean Air Act.

As approved by letter from Ecology dated November 22, 2005, the Permittee is authorized to burn up to, but not in excess of, 12 tons per day of mill derived solid waste generated on the Wallula Mill site in the Hogged Fuel Boiler, excluding material designating as dangerous waste. As such, the facility is not subject to the requirements of WAC 173-474 and the solid waste incinerator rules.

MONITORING, RECORDKEEPING & REPORTING

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

20. 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]
21. 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]
22. 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.
23. 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

24. 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]

25. 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)]
26. 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 174-401-724(5)]
27. 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)]
28. 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]

29. 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.
30. 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)]
31. 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)]
32. 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)]
33. Greenhouse Gas Reporting. The following condition is **state only** and is not federally enforceable under the Clean Air Act.

Reporting Schedule

The Permittee must submit the report required under chapter 173-441 WAC to Ecology no later than March 31st of each calendar year for GHG emissions in the previous calendar year. [WAC 173-441-050(2)] Reporting requirements begin for calendar year 2012 and each subsequent calendar year. [WAC 173-441-050(b)]

The report and certificate or representation must be submitted electronically in accordance with the requirements of WAC 173-441-050 and 173-441-060 and in a format specified by ecology. [WAC 173-441-070]

Submit a revised annual GHG report within forty-five days of discovering that an annual GHG report previously submitted contains one or more substantive errors. [WAC 173-441-050(7)]

Reporting Content

Each annual GHG report shall contain the content specified in WAC 173-441-050(3). [WAC 173-441-050(3)]

Each GHG emission report and any other submission under this chapter 173-441 WAC shall be certified, signed, and submitted by the designated representative or any alternate designated representative in accordance with WAC 173-441-060 and 40 CFR §3.10 as adopted on October 13, 2005.

(a) Each such submission shall include the following certification statement signed by the designated representative or any alternate designated representative: "I am authorized to make this submission on behalf of the owners and operators of the facility or supplier, as applicable, for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment." [WAC 173-441-060(5)]

All requests, notifications, and communications to Ecology pursuant to chapter 173-441 WAC, other than submittal of the annual GHG report, shall be submitted to the following address: Greenhouse Gas Report, Air Quality Program, Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600. [WAC 173-441-100]

Emissions Calculations

Use the calculation methodologies specified in the relevant sections of WAC 173-441. Use the same calculation methodology throughout a reporting period unless you provide a written explanation of why a change in methodology was required. [WAC 173-441-050(4)]

Calibration and accuracy requirements

The Permittee must meet the applicable flow meter calibration and accuracy requirements of WAC 173-441-050(8). The accuracy specifications in this subsection do not apply where either the use of company records (as defined in WAC 173-441-020(3)) or the use of “best available information” is specified in an applicable subsection of WAC 173-441 to quantify fuel usage and/or other parameters. Further, the provisions of this subsection do not apply to stationary fuel combustion units that use the methodologies in 40 CFR Part 75 to calculate CO₂ mass emissions. [WAC 173-441-050(8)]

Recordkeeping

Keep records as specified in WAC 173-441-050(6). Retain all required records for at least three years. The records shall be kept in an electronic or hard copy format (as appropriate) and recorded in a form that is suitable for expeditious inspection and review. Upon request by Ecology, the records required under this section must be made available to Ecology. Records may be retained offsite if the records are readily available for expeditious inspection and review. For records that are electronically generated or maintained, the equipment or software necessary to read the records shall be made available, or, if requested by Ecology, electronic records shall be converted to paper documents. [WAC 173-441-050(6)] and [40 CFR 64.9]

34. 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), WAC 173-400-107 and 40 CFR 64.9]
35. 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]

36. 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 47600
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

37. Compliance Requirements/Certification.

- a. The Permittee shall continue to comply with applicable requirements with which the Permittee is in compliance [WAC 173-401-510(2)(h)(ii)(A)];
- b. The Permittee shall meet applicable requirements that will become effective during the permit period on a timely basis [WAC 173-401-510(2)(h)(ii)(B)];
- c. The Permittee shall submit a report to Ecology and to EPA Region X within 105 days after the close of the calendar year, and every year thereafter, certifying compliance with the terms and conditions contained in this permit for the previous calendar year. A report filed in a format approved by Ecology is deemed to meet the requirements of this condition. The initial compliance certification shall cover the period from when the permit is effective to the end of the calendar year. 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. [WAC 173-401-630(5)]

The compliance status shall be based on compliance with the final averaging period of the annual certification period. Determination of continuous or intermittent compliance (condition 37c) shall be based on compliance during the entire annual certification period.

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

STANDARD TERMS & CONDITIONS

38. Duty to Comply. The Permittee must comply with all conditions of this 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)]
39. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [WAC 173-401-620(2)(b)]
40. Permit Actions. This permit may be modified, revoked, reopened, and reissued or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [WAC 173-401-620(2)(c)]
41. Property Rights. This permit does not convey any property rights of any sort, or any exclusive privilege. [WAC 173-401-620(2)(d)]
42. Duty to Provide Information. The Permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the administrator along with a claim of confidentiality. Permitting authorities shall maintain confidentiality of such information in accordance with RCW 70.94.205. [WAC 173-401-620(2)(e)]
43. Permit Fees. The Permittee shall pay fees as a condition of this permit in accordance with 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)]
44. Emissions Trading. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit. [WAC 173-401-620(2)(g)]
45. Severability 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)]

46. 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)]
47. 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)]
48. 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)]
49. 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))
50. 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]
51. Reopening for Cause. This permit shall be reopened and revised under any of the following circumstances:
 - a. Additional applicable requirements become applicable when the remaining permit term is greater than three years. Such reopening shall be completed no 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).

- b. 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.
- c. 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
- d. 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]

- 52. 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)]
- 53. 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)]

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, determined to be applicable, enacted after the permit issuance date. This permit shield shall not apply to any insignificant emission unit or activity designated under WAC 173-401-530. [WAC 173-401-530(3)]

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

APPENDIX A – Permit Shield/Inapplicable Requirements

CITATION	SOURCE	TOPIC/PARAMETER	REASONING
WAC 173-400-040(1)	All sources	Opacity < 20%	Not applicable, since the specific limits set in WAC Chapter 405 take precedence.
WAC 173-400-040(3)(a)	Material handling/ construction in attainment areas	Use reasonable methods to control fugitive emissions	Facility is located in a PM nonattainment area.
WAC 173-400-040(6)	Any emission unit	SO2 emissions < 1,000 ppm	Not applicable, since the specific limits set in WAC Chapter 405 take precedence.
WAC 173-400-050(1)	Combustion sources	Grain loading (0.1 gr/dscf)	Not applicable, since the specific limits set in WAC Chapter 405 take precedence.
WAC 173-400-050(1)	Steam boiler firing wood derived fuel	< 0.2 gr/dscf (Using EPA Method 5 testing)	Not applicable, since the specific limits set in WAC Chapter 405 take precedence.
WAC 173-400-060	General process	Grain loading (0.1 gr/dscf)	Not applicable, since the specific limits set in WAC Chapter 405 take precedence.
WAC 173-410	NSSC process	Various	The NSSC process does not use a sulfurous acid in conjunction with a sulfite or bisulfite salt.
WAC 173-405-040(1)(b)	Recovery furnace stacks constructed before 1/1/70, and those recovery furnaces with direct contact evaporators	TRS emissions < 17.5 ppm (8% O ₂ daily average)	None constructed before 1/1/70, and none with direct contact evaporators.
40 CFR 60.2	All sources	Definitions	General information and terms. Not applicable; no requirement described.
40 CFR 60.3	All sources	Units and Abbreviations	Abbreviations and symbols of units of measure. Not applicable; no requirement described.
40 CFR 60.4	All sources	Address and Locations of Government Agencies	Not applicable; no requirement described.
40 CFR 60.5	N/A	Determination of Construction or Modification	Requirement for state or federal agencies. Not applicable; no requirement described.
40 CFR 60.6(a)	N/A	Review of Plans	Requirement for state or federal agencies. Not applicable; no requirement described.
40 CFR 60.9	N/A	Availability of Information	Requirement for state or federal agencies. Not applicable; no requirement described.

CITATION	SOURCE	TOPIC/PARAMETER	REASONING
40 CFR 60.10	N/A	State Authority	Requirement for state or federal agencies. Not applicable; no requirement described.
40 CFR 60.11(e)(6)	N/A	Review of the Opacity Data vs. Performance Tests to Determine Opacity Standard	Requirement for state or federal agencies. Not applicable; no requirement described.
40 CFR 60.11(e)(7)	N/A	Granting Opacity Petition	Requirement for state or federal agencies. Not applicable; no requirement described.
40 CFR 60.11(e)(8)	N/A	Establishing Opacity Standard	Requirement for state or federal agencies. Not applicable; no requirement described.
40 CFR 60.13(i)	N/A	Alternate Monitoring Approval	Requirement for state or federal agencies. Not applicable; no requirement described.
40 CFR 60.13(j)	N/A	Alternate Test and Method Approval	Requirement for state or federal agencies. Not applicable; no requirement described.
40 CFR 60.14(h)	Electric utility steam generation unit	Various	Not applicable; not an existing electric utility steam generation unit.
40 CFR 60.14(i)	DOE repowering projects	Various	Not applicable; not a repowering project.
40 CFR 60.14(j)	Repowering project	Extension	Not applicable; not a repowering project.
40 CFR 60.14(k)	Temporary clean coal technology demonstration project	Various	Not applicable; not a temporary clean coal technology demonstration project.
40 CFR 60.14(l)	Very clean coal fired electric utility steam generating unit	Reactivation	Not applicable; not a very clean coal fired electric utility steam generating unit.
40 CFR 60.16	All sources	Priority List	Not applicable; no requirement described.
40 CFR 60.17	All sources	Incorporations by Reference	Not applicable; no requirement described.
40 CFR Part 60 Subpart D	Industrial fossil fuel steam generators	Various	None after 1971 that meet applicability.
40 CFR Part 60 Subpart Da	Electric utility steam generators (fossil fuel)	Various	Not an electric utility.
40 CFR Part 60 Subpart De	Industrial fossil fuel steam generators	Various	None after 1989.
40 CFR Part 60 Subpart Kb except as specified in 40 CFR 60.116b(a-b)	Volatile organic liquid storage vessels	Various	Volatile organic liquid storage tanks at the mill with a capacity greater than 40 cubic meters contain liquids with a maximum true vapor pressure less than 3.5 kPa.

CITATION	SOURCE	TOPIC/PARAMETER	REASONING
40 CFR §60.283(a)(3)	Cross kraft recovery furnaces constructed after 9/24/76	TRS emissions < 25 ppm by volume on a dry basis corrected to 8% O ₂	No cross kraft recovery furnaces present.
40 CFR §60.284(d)(3)(ii)	Digester systems, brownstock washer systems, multiple effect evaporator systems, and condensate stripper systems constructed after 9/24/76 for which gases are combusted in a lime kiln not subject to this subpart.	Semiannual reporting requirements.	Lime kiln is subject to the provisions of this subpart. Therefore, this regulation is not applicable to the named sources.
40 CFR §60.285(d)(3)	Recovery furnaces constructed after 9/24/76	When determining whether a furnace is a straight kraft or cross recovery furnace, must use TAPPI Method T.624 three times daily.	Based on the intrinsic system design of the recovery furnaces that the black liquor cannot exceed 7% of the total pulp solids from the NSSC process. Thus, the furnaces are of the straight kraft variety. No further determinations are required.

APPENDIX B – Permit Shield/Noncategorically, Nonapplicable Requirements

Those air quality requirements specifically identified in this Appendix for units subject to 40 CFR §60 are considered inapplicable to all other units without qualifying actions on the part of either Ecology, the Permittee, or both.

TOPIC/ PARAMETER	LIMIT & AVERAGE PERIOD	CITATION(S)	SOURCE	REASONING FOR NON- APPLICABILITY
Continuous Emissions Monitoring	Various	40 CFR 60.7(c) 40 CFR 60.7(d) 40 CFR 60.7(e) 40 CFR 60.13(a) 40 CFR 60.13(b) 40 CFR 60.13(c) 40 CFR 60.13(d) 40 CFR 60.13(e) 40 CFR 60.13(f)	All sources except: No. 2 recovery furnace Lime kiln	These units have no requirement for continuous emissions monitoring
Continuous Opacity Monitoring	Various	40 CFR 60.7(a)(5) 40 CFR 60.7(a)(6) 40 CFR 60.7(a)(7) 40 CFR 60.11(b) 40 CFR 60.11(c) 40 CFR 60.11(e)(1) 40 CFR 60.11(e)(2) 40 CFR 60.11(e)(3) 40 CFR 60.11(e)(4) 40 CFR 60.11(e)(5) 40 CFR 60.13(c)	All sources except: No. 2 recovery furnace	These units have no requirement for continuous opacity monitoring.
TRS	5 ppmvd at 8% O ₂ 12 hour average	40 CFR 60.283(a)(2)	No. 3 recovery furnace	The unit was not constructed or modified after September 24, 1976.
Particulate	0.2 lbs/ton of black liquor solids (dry weight), hourly average	40 CFR 60.282(a)(2)	No. 3 smelt tank	The unit was not constructed or modified after September 24, 1976.
TRS	0.033 lbs/ton of black liquor solids as H ₂ S, annual average	40 CFR 60.283(a)(4)	No. 3 smelt tank	The unit was not constructed or modified after September 24, 1976.
TRS emissions	< 5 ppm corrected to 10% O ₂ unless controlled using one of the methods listed and other	40 CFR 60.283(a)(1)	Brownstock washers; No. 1 and No. 2 M&D digesters; No. 1 and No. 2 evaporator sets	These units were not constructed or modified after September 24, 1976. The No. 2 M&D digester was constructed prior to September 24, 1976, but was relocated to the

TOPIC/ PARAMETER	LIMIT & AVERAGE PERIOD	CITATION(S)	SOURCE	REASONING FOR NON- APPLICABILITY
	provisions of this section are met.			Wallula, WA site after the trigger date. This unit was not modified and is not subject to 40 CFR 60.
Reporting	Must report semiannually to the EPA periods of emissions for which the 12 hour TRS average exceeds 5 ppm (satisfies the requirements of 40 CFR 60.7(c))	40 CFR 60.284(d)(3)(i)	Brownstock washers; No. 1 and No. 2 M&D digesters; No. 1 and No. 2 evaporator sets	These units were not constructed or modified after September 24, 1976. The No. 2 M&D digester was constructed prior to September 24, 1976, but was relocated to the Wallula, WA site after the trigger date. This unit was not modified and is not subject to 40 CFR 60.
The TRS concentration must be determined using EPA Method 16 with a sample time of at least three hours	Various	40 CFR 60.285(d)(1)	Brownstock washers; No. 1 and No. 2 M&D digesters; No. 1 and No. 2 evaporator sets	These units were not constructed or modified after September 24, 1976. The No. 2 M&D digester was constructed prior to September 24, 1976, but was relocated to the Wallula, WA site after the trigger date. This unit was not modified and is not subject to 40 CFR 60.
Oxygen concentrations for correcting TRS emissions must be determined using EPA Method 3B	Various	40 CFR 60.285(d)(2)	Brownstock washers; No. 1 and No. 2 M&D digesters; No. 1 and No. 2 evaporator sets	These units were not constructed or modified after September 24, 1976. The No. 2 M&D digester was constructed prior to September 24, 1976, but was relocated to the Wallula, WA site after the trigger date. This unit was not modified and is not subject to 40 CFR 60.

APPENDIX C – Algorithms for Emissions Calculations

The following algorithms set forth the calculation method for those emission limits for which the designated reference method itself does not yield a direct emission measurement. The Permittee may use an equivalent method with written approval from Ecology.

Reference Method Dependent Emission Limits

Conditions A.1.a, A.1.b and B.1.a, B.1.b, and C.1.a, C.1.b, C.1.c, C.1.d, and D.1.a, D.1.b, and E.2.a, E.2.b, and F.1, F.2.

PM (mass per time) = Concentration * Air Flow Rate * Unit Conversion Factor * Time Adjustment

Where,

Concentration is Reference Method (RM) dependent. For example, RM 5 yields particulate emission in terms of grains per dry standard cubic foot (gr/dscf).

Air Flow Rate must be representative of normal operations and is derived from the applicable RM in terms of dry standard cubic feet per minute.

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

Time Adjustment is case specific and is dependent on the flow rate time unit.

For rolling averages. Each subsequent value will then be averaged with the preceding value of the applicable calculated PM emission rates (monthly, quarterly, or other test frequency, whichever applicable) to determine the rolling average.

Conditions A.4, A.5.a, A.5.b, and B.6.a, B.6.b, and C.4, C.5, C.6, C.6.a, C.6.b, and F.6, F.7 and G.4.

SO₂ (mass per time) = Concentration * Air Flow Rate * Unit Conversion Factor * Time Adjustment

Where,

Concentration is case specific in terms of averaging period as required by the Permit.

Air Flow Rate must be representative of normal operations and is in the unit of dry standard in cubic feet per minute during the applicable source test period.

Unit Conversion Factor is case specific. For example, the density of SO₂, 0.166 lb per cubic foot of SO₂ based on a molecular weight of 64 lb/lb mol and an ideal gas volume of standard conditions of 385ft³/lb.mol

Time Adjustment is case specific and is dependent on the flow rate time unit.

For rolling averages: Each subsequent value will then be averaged with the preceding value of the applicable calculated PM emission rates (monthly, quarterly, or other test frequency, whichever applicable) to determine the rolling average.

Conditions B.10, B.11.

VOC (mass per time) = Concentration * Annual Heat Input * Unit Conversion Factor

Where,

Concentration is RM dependent. For example, RM 25A yields VOC emission in terms of lb/MMBtu.

Annual Heat Input is the Btu input to the No. 3 recovery furnace.

Unit Conversion Factor is case specific. For example, 1 ton = 2000 lb.

Condition B.7.

NOx (mass per time) = Concentration * Air Flow Rate * Unit Conversion Factor * Time Adjustment

Where,

Concentration is case specific in terms of averaging period as required by the Permit. Each emission unit limitation specifies the averaging period used by the CEM. For example, the CEM on the No. 2 recovery furnace derives an hourly average. The monthly average will be calculated based on the sum of valid individual hourly averages divided by the total number of valid hour averages available.

Air Flow Rate must be representative of normal operation. For example, dry standard cubic feet per minute is obtained from the most recent PM sampling period.

Unit conversion Factor is pollutant specific and involves molar mass and molar volume. For example, the unit conversion factor for nitrogen oxide is 0.1194 lb NOx per cubic foot of NOx.

Time Adjustment is case specific and is dependent on the flow rate time unit.

The monthly values for the year will be summed to determine the annual average at the end of the calendar year.

Condition B.8, and F.9.

Where,

Concentration is case specific in terms of averaging period as required by the Permit. Each emission unit limitation specifies the averaging period used by the CEM. For example, the CEM on the No. 2 recovery furnace derives an hourly average. The monthly average will be calculated based on the sum of valid individual hourly averages divided by the total number of valid hour averages available.

Air Flow Rate must be representative of normal operation. For example, dry standard cubic feet per minute is obtained from the most recent PM sampling period.

Unit conversion Factor is pollutant specific and involves molar mass and molar volume. For example, the unit conversion factor for carbon monoxide is 0.0728 lb CO per cubic foot of CO based on a molecular weight of 28 lb/lb mol and an ideal gas volume of standard conditions of 385ft³/lb mol.

Time Adjustment is case specific and is dependent on the flow rate time unit.

The monthly values for the year will be summed to determine the annual average at the end of the calendar year.

For rolling averages. Each subsequent value will then be averaged with the preceding value of the applicable calculated PM emission rates (monthly, quarterly, or other test frequency, whichever applicable) to determine the rolling average.

Condition A.6 and B.9.a, B.9.b and C.7.a, C.7.b, C.9 and D.4.

TRS (mass per time) = Concentration * Air Flow Rate * Unit Conversion Factor * Time Adjustment

Where,

Concentration is case specific in terms of averaging period as required by the Permit. Each emission unit limitation specifies the averaging period used by the CEM. For example, the CEM on the No. 2 recovery furnace derives an hourly average. The monthly average will be calculated based on the sum of valid individual hourly averages divided by the total number of valid hour averages available.

Air Flow Rate must be representative of normal operation. For example, dry standard cubic feet per minute is obtained from the most recent PM sampling period.

Unit conversion Factor is pollutant specific and involves molar mass and molar volume. For example, the unit conversion factor for TRS as H₂S is 0.0883 lb per cubic foot based on a molecular weight of 34 lb/lb mol and an ideal gas volume of standard conditions of 385ft³/lb mol.

Time Adjustment is case specific and is dependent on the flow rate time unit.

The monthly values for the year will be summed to determine the annual average at the end of the calendar year.

Condition G.3

SO₂ (mass per time) = AP42 Emission Factor * Fuel Sulfur Content * Amount of Fuel Used

Where AP-42 Emission Factor is the SO₂ emission factor listed in U.S. EPA's "Compilation of Air Pollutants Emission Factors (AP-42)". The SO₂ emission factor is expressed in pounds per thousand gallons (lb/1000 gallons) as a multiple of the fuel sulfur content.

Fuel Sulfur Content is the sulfur content of the fossil fuel in percent. For example if a 1.7% sulfur fuel is used, the fuel sulfur content to be used in the above equation is 1.7.

Amount of Fuel Used is the amount of fuel used in a year, in 1000 gallons.

This value (lb/year) will then be divided by 365 days per year to determine the lb/day value based on an annual average.

Condition F.8

NO_x (lb per million but) = Concentration * Unit Conversion Factor * F Factor * $20.9 / (20.9 - \text{O}_2$ percent)

Where concentration is obtained using EPA Method 7, NO_x CEM data, or an alternative test method approved by Ecology. It is expressed on a dry basis.

Unit Conversion Factor is the density of NO_x , 0.1194 lb per cubic foot of NO_x at 20°C.

F Factor is the volume of combustion components per unit of heat content as calculated using Equation 19-16 for multiple fuels and Table 19-2 of EPA Method 19.

O_2 Percent is the oxygen percent expressed on a dry basis and averaged over the same averaging time used in the concentration measurement.

This value (lb/mmbtu) will then be averaged with previous twenty nine days to determine the rolling 30 day average.

APPENDIX D – Glossary of Terms Used in the Air Operating Permit

Annual Average. In defining the averaging period of a particular limit, annual average means the calendar year average. Determining compliance with a limit with an annual average shall be based on the unit's operation for a calendar year.

Calendar Year Average. The calendar year average is the average value of a given parameter over the period beginning on January 1 and ending on December 31.

Corrective Action. Action taken by Permittee with the intent of removing the identified deviation.

Intermittent Compliance. For the purpose of annually certifying compliance, the Permittee is considered to be in intermittent compliance with a permit term or condition if it is not in continuous compliance with the permit term or condition during the annual certification period.

In Operation. In operation means engaged in activity related to the primary design function of the source. For example, a straight recovery furnace is in operation only when combusting black liquor, and a lime kiln is in operation only when feeding lime mud.

IPT-Initial Performance Plan Detailed test plan outlining the test protocol in which operating parameters will be determined.

Rolling Annual Average. In defining the averaging period of a particulate emissions limit, the rolling annual average means the average of the emissions readings of the previous year leading up to the reporting date. For a rolling annual average limit with an associated monthly reporting requirement, the rolling annual average is a 12 month rolling average, calculated monthly. The need for this term is necessitated by the possibility of different reporting frequencies for a single emissions limit, based on the performance of the unit compared to the permit limit.

30 Day Rolling Average. In defining the averaging period for MACT I pulping condensate collection, the 30 day rolling average means the average of the total HAPs collected per oven dry ton of unbleached pulp in the previous 30 days leading up to the reporting date.

60 Minute Period. The period from the top of one hour to the top of the next hour (e.g., 07:00:00 to 07:59:59).

Visual Opacity Assessment. A visual opacity assessment as used in this Permit, is the use of an observer trained in general procedures for determining visible emissions, which could include EPA Method 9B or EPA Method 9. A trained observer does not need to have current certification in Method 9B. Under normal conditions, a trained observer will be present at the facility, while a certified Method 9B observer is not always readily available.

APPENDIX E – Existing Orders and Permits

All of the following past permits and regulatory orders are applicable (included).

Order 1614-AQ04
Order DE 95AQI-84 Modification 3
Order DE 96-AQ-I078
Order DE 02-AQIS-5019
Order DE 02-AQIS-3588
PSD-X-77-04
PSD-01-07
PSD-X-77-04 Amendment 2 (also incorporates Modification 1 issued by EPA January 1983)
PAD-95-04
PSD-01-07
PSD-01-07 Amendment 1

All of the following past permits and regulatory orders are inapplicable (not included).

Regulatory Order 36-8
DE 78-112
DE 78-120
DE 88-112
DE 92-AQI045
DE 95-AQI053 Amendment 1
DE 95AQI055
DE 95AQI084 Modification 1 and Modification 2
DE 96-AQI013

APPENDIX F – Footnote Key

1. Monitoring is required only when emission unit is operating.
2. If monitored emissions are equal to or less than 75% of the emission limitation for any six consecutive months, emissions will be monitored by three 1 hour test per quarter and reported quarterly.

If monitored emissions are less than or equal to 65% of the emission limitation for any four consecutive quarters, emissions will be monitored by three 1 hour tests per year and reported annually.

If monitored emissions are less than or equal to 50% of the emission limitation for any four consecutive quarters, emissions may be monitored by one 1 hour test per year and reported annually.

Three 1 hour tests averaging less than or equal to 50% of the limitation qualify for the 1 hour annual test per year option. The Permittee shall conduct source testing within 105 days between two consecutive quarterly tests. If monitored emissions exceed the current threshold, the monitoring frequency will revert to the previous frequency. [PSD-X-77-04, WAC 173-401-615, or underlying applicable air order as basis for testing frequency flexibility]

3. The Permittee shall record levels of precipitator voltage and current during particulate compliance source testing for informational purposes only. [Order DE 02AQIS-3588]
4. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. [40 CFR 64.7(d)]

5. Based on the results of a determination made under Footnote 4, the Permittee may be required to develop and implement a quality improvement plan (QIP). [40 CFR 64.8]
6. The CAM excursion or exceedance reporting must include, at a minimum, (i) summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken; (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and (iii) A description of the actions taken to implement a QIP during the reporting period as specified in §64.8, if applicable. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. [40 CFR 64.9]
7. The PM10 emission limits satisfy the NSPS requirement of 0.044 grains per dry standard cubic feet in 40 CFR 52.21(j).
8. Reserved
9. The monitoring and reporting provisions contained within O.4, O.5, and O.6 shall be reopened and amended upon promulgation of changes to 40 CFR 63.453 by EPA.
10. Reserved.
11. 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(7); 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)]

12. MACT CMS Performance Reports. The Permittee shall record and report CMS downtime in the semiannual MACT report. [40 CFR 63.10(e)]

13. NSPS CMS Performance Reports. The Permittee shall record and report CMS downtime in the semiannual report. [40 CFR §60.7(c) and (d) (2/12/99)]
14. 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(7); WAC 173-405-077; WAC 173-401-615(1)(c); WAC 173-401-630(1)]