Air Quality Permitting
Statement of Basis

January 1, 2010

Tier I Operating Permit No. T1-2007.0106

Clearwater Paper Corporation, Lewiston

Pulp and Paper Division

Facility ID No. 069-00001

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Final

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Acronyms, Units, and Chemical Nomenclature

acfm	actual cubic feet per minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
ASB	Aerated Storage Basin
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CCA	Clean Condensate Alternative
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	Environmental Protection Agency
gpm	gallons per minute
gr	grain (1 lb = 7,000 grains)
HAPs	Hazardous Air Pollutants
hp	horsepower
IDAPA	A numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
m	meter(s)
MACT	Maximum Available Control Technology
MMBtu	Million British thermal units
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NSPS	New Source Performance Standards
O_3	ozone
PM	Particulate Matter
PM_{10}	Particulate Matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	Permit to Construct
PTE	Potential to Emit
Rules	Rules for the Control of Air Pollution in Idaho
scf	standard cubic feet
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SM	synthetic minor
SO_2	sulfur dioxide
SO_x	sulfur oxides
T/yr	Tons per year
$\mu g/m^3$	micrograms per cubic meter
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PURPOSE

The purpose of this memorandum is to explain the legal and factual basis for this draft Tier I operating permit renewal in accordance with IDAPA 58.01.01.362.

The Department of Environmental Quality (DEQ) has reviewed the information provided by Clearwater Paper Corporation (Formerly Potlatch Forest Products Corporation) regarding the operation of its facility located in Lewiston. This information was submitted based on the requirements to submit a Tier I operating permit application in accordance with IDAPA 58.01.01.369. Clearwater Paper Corporation's Pulp and Paper Division and the Consumer Products Division are considered one single Tier I major facility. The Clearwater Paper Corporation Tier I permit is issued in two sections, one section is for the Pulp and Paper Division and the other section is for the Consumer Products Division. This Statement of Basis is for the Pulp and Paper Division section of the Tier I permit.

2. FACILITY DESCRIPTION

Clearwater Paper Corporation, Idaho Pulp and Paperboard Division operates a kraft pulp mill in Lewiston, Idaho. The mill produces bleached kraft pulp, which is processed in three different areas. Uncoated and coated paperboard is produced in the paper machine area; market pulp is dried on the pulp dryer in the finishing area; and slurried pulp stock is pumped to the Clearwater Paper Corporation, Consumer Product Division, which is adjacent to the Idaho Pulp and Paperboard Division. As previously stated, the Clearwater Paper Corporation's Pulp and Paper Division and the Consumer Products Division are considered one single Tier I major facility. The Clearwater Paper Corporation Tier I permit is issued in two sections, one section is for the Pulp and Paper Division and the other section is for the Consumer Products Division. A Tier I permit was also issued to Clearwater Lumber Facility. The issuance of these three permits was challenged. The EPA administrator did not find that any aspects of the air rules had been omitted by issuing these permits and the objection to the permit was denied.[1]

3. FACILITY/AREA CLASSIFICATION

This facility is a major facility as defined by IDAPA 58.01.01.008.10 because it emits or has the potential to emit regulated air pollutants (SO_2, NOx, CO, PM_{10}, VOC, and HAPs) in amounts greater than or equal to major facility threshold(s) listed in Subsection 008.10. Refer to Section 6.2 of this document for a complete emissions inventory of the air pollutants emitted by this facility.

This facility is a designated facility as defined by IDAPA 58.01.01.006.30 – Kraft Pulp Mills

This facility is a major facility as defined by IDAPA 58.01.01.205 because it emits or has the potential to emit a regulated criteria air pollutant in amounts greater than or equal to 100 tons per year.

The Standard Industrial Classification (SIC) defining the facility is 2611, and the Aerometric Information Retrieval System (AIRS) facility classification is A. The facilities North American Industry Classification System (NAICS) code is 32210 – Pulp and Paper Mills.

[1] Order Responding to Petitioners' Request that the Administrator Object to Issuance of State Operating Permits, May 7, 2007, Stephen L. Johnson, Administrator, EPA

The facility is located in Lewiston, Nez Perce County, Idaho, which is designated as unclassifiable/attainment for all regulated criteria pollutants (i.e., PM_{10}, CO, NO_X, SO_2, lead, and ozone). There is not a Class I area within 10 kilometers of the facility. This facility is located in Air Quality Control Region (AQCR) 62 and Universal Transverse Mercator (UTM) Zone 11.

4. APPLICATION SCOPE

On June 19, 2007 DEQ received an application from Clearwater to renew their Tier I Operating Permit. Clearwater requested that new applicable requirements for MACT and CAM be incorporated into the renewed Tier I permit.

5. SUMMARY OF EVENTS

June 19, 2007	DEQ receives application to renew the Tier I Operating Permit
August 17, 2007	DEQ determined the application complete
November 14, 2008	Potlatch Forest Production Corporation submitted a request to change their name to Clearwater Paper Corporation.
January 26, 2009	Draft permit made available for a 30 day comment period.
February 25, 2009	DEQ received Clearwater's comments on the draft permit including new CAM plans
July 28, 2009	2nd Draft permit made available for a 30 day comment period
August 21, 2009	Clearwater requested a 30 day extension to the public comment period. DEQ extended the comment period to September 28, 2009
September 28, 2009	DEQ received Clearwater's comments on the 2nd Draft Permit
December 1, 2009	DEQ sent the proposed permit to EPA for their 45 day review
December 11, 2009	DEQ received notification from EPA that the Permit is eligible for issuance

5.1 Permitting History

Listed below is the permit history for the Clearwater facility. The status of each permit is also given (A-Applicable, S – Superseded, Expired).

Date	Permit #	Project Description	Status
December 6, 1973	069-00001	PTC for #1 Recovery, #4 Kiln, Digester, Stock Washer,	A - does not include restrictions
September 20, 1978		Condition PTC Letter for #4 Power Boiler	A
July 5, 1979	13-1140-0003-00 (9 pg.)	SIP Air Pollution Source Permit	A
July 5, 1979	13-1140-0001-001 (19 pg.)	SIP Air Pollution Source Permit	A
September 30, 1980	PSD-X80-18	EPA PTC for #4 Power Boiler	A
May 6, 1983	Air Permit 1140-0001	No. 5 Recovery	A - with portions superseded
July 26, 1983	13-1140-0001-00 (9 pg.)	Amendment to 79 Air Pollution Source Permit	Expired
August 22, 1984	1140-0001	Air Pollution Source Permit	Expired
December 3, 1984	PSD-X84-01	PTC for #5 Recovery Furnance	A
July 3, 1985	1140-0001-315	PTC for Trash Hog	S
August 19, 1985	1140-0001	Air Pollution Source Permit Modification- Trash Hog	Transferred to Wood Products
September 15, 1986	1140-0001	Air Pollution Source Permit Modification- Kilns	S
October 29, 1986	1140-0001	Air Pollution Source Permit Modification- Kilns	S
September 9, 1988	1140-0001	PTC for Lime Slaking and Handling	S
May 25, 1989	PSD-X84-01	EPA PTC amendment for #5 Recovery	S
July 3, 1990	1140-0001	PTC for Chlorine Dioxide	S
August 14, 1990	1140-0001	PTC for Oxygen Delignificaiton	S

December 11, 1990	1140-0001	PTC Modification for Oxygen Delignification	S
April 30, 1993	069-00001	PTC for NCG Incinerator	S
June 22, 1994	069-00001	PTC for Chlorine Dioxide	S
September 6, 1994	069-00001	PTC for Chlorine Dioxide (Amendment)	S
September 6, 1994	069-00001	PTC for Oxygen Delignification	S
March 2, 1995	069-00001	DEQ Permit modification #5 Recovery	A
March 15, 1995	069-00001	PTC for NCG Incinerator	S
March 16, 1995	069-00001	DEQ Permit modification #5 Recovery	A
May 8, 1995	069-00001	PTC for No. 4 & 5 Saltcake	S
August 7, 1995	069-00001	PTC for No. 4 & 5 Saltcake	S
December 18, 1995	069-00001	PTC for Chlorine Dioxide	S
January 31, 1996	069-00001	PTC for Chlorine Dioxide (Amendment)	S
September 16, 1996	069-00001	PTC for Oxygen Delignificaiton	S
January 29, 1997	069-00001	PTC for No. 4 & 5 Saltcake	A
March 21, 1997	069-00001	PTC Amendment for NCG Incinerator	S
April 30, 1997	069-00001	PTC Amendment for NCG Incinerator	S
August 29, 1997	069-00001	PTC for NCG Incinerator	S
September 3, 1998	069-00001	PTC for Temporary Boilers	S
November 6, 1998	069-00001	PTC for Temporary Boilers	A
April 28, 1999	069-00001	PTC Chlorine Dioxide Plant	S
September 22, 1999	069-00001	PTC Chlorine Dioxide Plant	S
February 14, 2000	069-00001	PTC for Chlorine Dioxide (Amendment)	A
August 31, 2001	069-00001	PTC for Thermocompressor	A
February 26, 2002	069-00001	PTC for #3&4 Lime Kilns	S
May 31, 2002	069-00001	PTC for #3&4 Lime Kilns	S
June 24, 2002	069-00001	PTC for #3&4 Lime Kilns	A
December 17, 2002	069-00001	T1 - Initial Tier I	S
February 27, 2003	069-00001	PTC for Lime Kilns - Incorporates PTC issued 6/24/02	A
August 14, 2006		Transfer permits from Potlatch to Potlatch Forest Prod.	S
November 9, 2006	P-050208	PTC for Package Boilers	S
February 21, 2007	T1-050216	Replaces T1-069-00001	S
May 25, 2007	P-060209	PTC for NCG Incinerator (amendment)	A
August 17, 2007	P-2007.0056	PTC Oxygen Delignificaiton, Replaces PTC 069-00001	A
August 27, 2007	T1-2007.0057	T1- Replaces # T1-050216	Will be Superseded by this permit
April 24, 2008	P-2008.0009	PTC for Package Boilers (Amendment)	A
April 13, 2009	P-2009.0020	PTC for Lime Handling (Amendment)	A

6. PERMIT ANALYSIS

6.1 Basis of Analysis

The following documents were relied upon in preparing this memorandum and the Tier I operating permit:

- All underlying permits issued to the facility listed in Section 5.1.
- Tier I Operating Permit No. T1-2007.0057, issued December 17, 2002 and modified on August 27, 2007.

- Guidance developed by the U.S. Environmental Protection Agency (EPA) and DEQ
- Rules for the Control of Air Pollution in Idaho
- Code of Federal Regulations (40 CFR 60, 63, 64 & 70)

6.2 Emissions Description and Emissions Inventory

Table 6.1 provides a summary of the potential emissions from Clearwater as provided in the application or in current permits.

Table 6.1 Clearwater Paper Corporation Potential to Emit Summary

Source	PM_{10} (T/yr)	SO_2 (T/yr)	CO (T/yr)	NOx (T/yr)	VOC (T/yr)	TRS (T/yr)	Maximum Individual HAP (T/yr)
Sawdust Handling	1.2				1.33		
Sawdust Cyclone	16.1						
Chip Handling	1.97				3.1		
Sawdust Brownstock Washers					24.5	1.1	28[1]
O_2 Reactor			74.5 *		44.7	1.3	17[2]
NCG Incinerator	6.95	20 *	6	12.9	2.2	0.05	2.2[1]
Sawdust Fiberline Bleach			90.2		4.6	0.2	11[1]
Chip Fiberline Bleach			220.9		11.2	0.4	26[1]
Lurgi 134 ClO_2 Synthesis				2.9			2.3[3]
Lurgi 234 ClO_2 Synthesis				5.5			2.3[3]
Lurgi Scrubber							1.1[4]
No. 2 Lime Kiln	12.4	2.6	0.6	7.4	0.2	0.5	0.1[5]
No. 3 Lime Kiln	17.3 *	21 *	44 *	113 *	1.1	12.6 *	0.6[5]
No. 4 Lime Kiln	17.3 *	15 *	44	113	1.1	12.6	0.6[5]
Lime Slaker	7.53 *						
Lime Handling Baghouse	4.13						
No. 1 Power Boiler	12.4	1	135.0	225.6	8.2		2.7[6]
No. 2 Power Boiler	100.8	1328	120.7	193.6	7.4	0.01	2.5[6]
No. 3 Power Boiler	8.8	0.7	96.6	161.4	5.9		2.0[6]
No. 4 Power Boiler	120	100	4741.7	842	156.07		15[7]
No. 1 Package Boiler	8.84	071	96.6	161.4	5.9		2.0[6]
No. 2 Package Boiler	11.04	0.88	120.68	201.62	7.36		2.5[6]
Temporary Boiler 1&2	0.53	0.04	5.9	9.8	0.35		1.2[6]
No. 4 Recovery Furnace	96.39	28.9	158.8	196.9	11.8	31.5	7.2[3]
No. 5 Recovery Furnace	181.1	490 *	3850 *	700 *	36.2	96.6	3.1[6]
No. 4 Smelt Tank	28.56	0.66	1.05	2.63	1.31	4.33	1.4[1]
No. 5 Smelt Tank	49	2.0	3.2	8.1	4.0	13.3	4.4[1]
No. 4 Salt Cake	2.0 *						
No. 5 Salt Cake	5.1 *						
Wastewater Treatment					241.7	52.1	230[1]
Dry Fuel Bin	28.2						
Hog Fuel (transfer & pile)	2.5						
No. 1 Paper Machine					4.2		5.3[9]
No. 2 Paper Machine					4.6		5.8[9]
Pulp Dryer	3.76				7.53	0.75	7.5[1]
Pulp Dryer Gas Fired	1.3	0.1	13.7	16.3	0.83		0.28[6]
Road Fugitives	107.1						
Total – Pulp and Paper Div.	803.0	1535.9	5855.6	2161.0	596.0	214.4	
Total – Consumer Products Div.	30.3	0.24	33.5	30.2	9.4	NA	
Facility Total	833.3	1536.1	5889.1	2191.2	606.7	214.4	230[1]

1) Methanol 2) o-Cresol 3) HCl 4) Chlorine 5) Naphthalene 6) Hexane 7) Benzene 8) Formaldehyde 9) Acetaldehyde

* Emission limits from underlying permits

7. REGULATORY ANALYSIS

7.1 IDAPA 58.01.01.369 – Tier I Operating Permit Renewal

The Tier I operating permit issued to Potlatch Pulp and Paper Division expired December 17, 2007. Potlatch submitted an application to renew their Tier I operating permit on June 19, 2007. This application was submitted 180 days (six months) prior to the permit expiration. A timely and complete Tier I renewal application was received; therefore the facility may operate after the permit expiration under the permit application shield until the renewed permit is issued. On November 14, 2008 Potlatch requested to change their name to Clear Water Paper Corporation.

Application and permit processing requirements for Tier I renewals are the same as for the initial issuance of a Tier I operating permit.

7.2 New Source Performance Standards (NSPS) – 40 CFR 60

40 CFR 60 Subpart D (60.40) – Fossil-Fuel-Fired Steam Generators

Applicability – NSPS Subpart D is applicable to fossil fuel and wood fired boilers, or fossil fuel fired boiler over 250 MMBtu/hr constructed or modified after August 17, 1971. The affected sources are the No. 4 Power Boiler, 1048 MMBtu/hr, installed 1980 (Multiple Fuels).

Standards (§60.42, §60.43, §60.44) :

PM – 0.10 lb per million Btu (fossil fuel and wood)
SO_2 - 0.80 lb per million Btu (liquid fossil fuel and wood)
NO_2 – 0.20 lb per million Btu (gaseous fossil fuels)
NO_2 – 0.30 lb per million Btu (liquid fossil fuel, liquid or gaseous fossil fuel and wood)
Opacity – 20%

Monitoring (§60.45):

COM required for Opacity
NOx CEM – (the initial NOx source test was less than 70% of the standard therefore a NOx CEM is not required)
CEM or fuel based monitoring required for SO_2
CMS required for Oxygen or Carbon monoxide
One time source test for PM and opacity

Clearwater has not demonstrated that a NOx CEM is not required per 40 CFR 60.45(a) and (b). According to the CFR a NOx CEM and associated oxygen or carbon monoxide monitoring is not required if it can be demonstrated that the initial performance test was less than 70% of the applicable standards of 40 CFR 60.44.

During the two public comment periods that were held on the drat permit Clearwater had referred to source test results submitted on September 11, 1981. These results are for a test that was conducted on July 29, 1981 and Clearwater asserts that they are the initial test results. In accordance with NSPS Subpart D, an initial source test is required not later than 180 days after initial startup unless a waiver is been granted by EPA. Since Clearwater has not provided the date of initial startup DEQ reviewed the facilities source files to see if they included documentation of the date of initial startup. DEQ could not

determine the boilers actual initial startup date from a review of the source files. However, DEQ did find a February 27, 1981 letter from Potlatch to the Idaho Department of Health and Welfare which included a statement that the boiler "first came on wood fuel on September 30, 1980"[2]. From this information it can be concluded that the boiler initial startup date was on or before September 30, 1980.

NSPS Subpart D requires initial source testing no later than 180 days after startup. If the date that the boiler initially fired on wood fuel (September 30, 1980) is used as the date of initial startup, in accordance with NSPS the initial test would have to be conducted not later with 180 days of September 30, 1980. The July 29, 1981 test data provided by Clearwater is well in excess of 180 days of initial startup. Clearwater has not provided, nor could DEQ find in the source files, documentation of an EPA approved extension to the NSPS testing schedule. The July 19, 1981 test does not meet the criteria to qualify as an initial source test for NSPS purposes and can not be used to justify that emission were less than 70% of the standard during the initial test.

The content of Potlatch's February 27, 1981 letter (referenced above) warrants further discussion. This letter includes a summary of NOx test conducted on a February 5, 1981. This test predates the July 29, 1981 test that has been asserted as the initial test. Additionally, this test was conducted within 180 days of the boiler firing on wood fuel *may* qualify[3] as the initial source test for NSPS purposes. However, this letter implies that NOx test results were greater than 70% of the standard. The letter states that, "The level of nitrogen oxides is the only parameter that is presently right at or over the permit condition. Proper air distribution for NOx control is not possible At (sic) this time". It should be noted that none of the emissions data presented with this letter are documented sufficiently to determine if the tests were conducted using the appropriate test methods, procedures, and fuel types to qualify as a valid NSPS test.

In summary, Clearwater has not provided initial source test data proving that NOx emissions were less than 70% of the standards. In absence of this demonstration a CEM is required in accordance with 40 CFR 60.45(a) and (b).

40 CFR 60 Subpart Dc (60.40c) – Small Industrial-Commercial-Institutional Steam Generating Units

Applicability – NSPS Subpart Dc is applicable to boiler with input capacities between 10.0 and 100.0 MMBtu/hr which construction, modification or reconstruction is commenced after June 9, 1989. Potentially affected permitted sources are (these boilers are not installed at this time):

- Temporary Boiler No. 1 (Natural Gas Exclusively)
- Temporary Boiler No. 2 (Natural Gas Exclusively)

Standards:

There are no emission standards for boilers that combust natural gas exclusively. However there are fuel usage monitoring requirements.

PTC No. 069-00001, 11/6/98 allows Clearwater to install and operate two temporary boilers, each of a capacity less than 100 MMBtu/hr. According to the Tier I renewal application the boilers are not installed at this time (the boilers construction date and input capacity are unknown); therefore the applicability of NSPS Dc can not be determined with certainty. However it is probable that the

[2] February 27, 1981 letter from Jack Anderson, Potlatch Corporation to William Damworth, Idaho Department of Health and Welfare.
[3] In order to qualify as the initial source test for NSPS purposes the test would have to be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup. Clearwater has provided neither the date of startup nor the date of achieving maximum production.

boilers will be affected emissions units and the NSPS has been included in the permit (and is only applicable if the boilers have a rated input capacity of between 10.0 and 100.0 MMBtu/hr and were constructed after June 9, 1989). The only applicable NSPS Subpart Dc requirement is to monitor the amount of fuel combusted each day.

40 CFR 60 Subpart BB (60.280) – Kraft Pulp Mills

Applicability – NSPS Subpart BB is applicable to: digester systems, brown stock washer systems, multiple-effect evaporator systems, recovery furnaces, smelt dissolving tanks, lime kilns and condensate stripper systems that commenced construction or modification after September 24, 1976. Affected sources at the Clearwater facility are:

No. 5 Recovery Furnace (permit section 6)
No. 5 Smelt Tank (permit section 7)
No. 9 Batch Digester (permit section 12)
Chip PreOx Brown Stock Washers (permit section 12)
No. 6 Multiple-effect Evaporators (permit section 12)

Following is a discussion regarding the applicable NSPS standards and monitoring requirements.

PM Standards (40 CFR 60.282):

- Recovery furnace emissions shall not contain gases that contain particulate in excess of 0.044 gr/dscf @ 8% O_2.
- Recovery furnace emissions shall not exhibit greater than 35% opacity.

  Clearwater has two recovery furnaces in operation. Recovery Furnace No. 5 was installed in 1985 and is an affected emissions unit. Recovery Furnace No. 4 was installed in 1970 and is not an affected emissions unit.

- Smelt dissolving tank PM emissions shall not exceed 0.02 lb/ton of black liquor solids (dry weight).

  Clearwater has two smelt dissolving tanks in operation. Smelt Tank No. 5 was installed in 1985 and is an affected emissions unit. Smelt Tank No. 4 was installed in 1970 and is not an affected emissions unit.

- The NSPS has lime kiln PM emissions standards; however they are not applicable to any of the kilns at the Clearwater facility. Lime Kilns No. 3 & No. 4 are not affected emissions units because they have not been constructed or modified after the September 24, 1976 applicability date[4], and Lime Kiln No. 2 is not affected because it does not process lime mud from the kraft process.

TRS Standards (40 CFR 60.283):

1) Emissions from affected units No. 9 batch digester, Chip preox brown stock washers, No. 6 multiple-effect evaporator shall comply with the following (40 CFR 60.283(a)(1)):

   TRS emissions shall not exceed 5 ppm by volume at 10% oxygen unless the following conditions are met:

   - Gases combusted in a NSPS affected lime kiln are subject to a TRS limit of 8 ppm by

[4] October 5, 2001, DEQ Air Permitting Technical Memo for Project No. P-000205,-Addition of ESP's on No. 3 & 4 Lime Kiln's in place of wet scrubbers.

volume at 10% oxygen, or

- Gases are combusted in a NSPS affected recovery furnace subject to an emission limit of 5 ppm by volume at 10% oxygen, or
- Gases are combusted in an incinerator or lime kiln at 1,200 Fahrenheit with a residence time of at least 0.5 seconds.

Clearwater has elected to comply with these standards by combusting the gases in an incinerator or lime kiln at 1,200 Fahrenheit with a residence time of at least 0.5 seconds (40 CFR 60.283(a)(1)(iii).

2) Gases from the kraft recovery furnace shall not have TRS emissions in excess of 5 ppm (40 CFR 60.283(a)(2)).

Clearwater has two recovery furnaces in operation. Recovery Furnace No. 5 was installed in 1985 and is an affected emissions unit. Recovery Furnace No. 4 was installed in 1970 and is not an affected emissions unit.

3) Gases from smelt dissolving tanks shall not have TRS emissions in excess of 0.033 pounds per ton of black liquor solids as H_2S (40 CFR 60.283(a)(4)).

Clearwater has two smelt dissolving tanks in operation. Smelt Tank No. 5 was installed in 1985 and is an affected emissions unit. Smelt Tank No. 4 was installed in 1970 and is not an affected emissions unit.

4) The NSPS has lime kiln TRS emissions standards, however they are not applicable to any of the kilns at the Clearwater facility.

Lime Kilns No. 3 & No. 4 are not affected emissions units because they were constructed prior to the September 24, 1976 applicability date, and Lime Kiln No. 2 is not affected because it does not process lime mud from the kraft process.

Monitoring (40 CFR 60.284)

40 CFR 60.284(a)(1) – Continuous opacity monitoring is required on No. 5 Recovery Furnace

40 CFR 60.284(a)(2) – Continuous TRS and oxygen monitoring is required from the No. 5 Recovery Furnace. Continuous TRS and oxygen monitoring is not required from the No. 9 batch digester, chip preox brown stock washer and No. 6 multiple-effect evaporator because Clearwater has elected to treat emissions in an incinerator or lime kiln at 1,200 Fahrenheit with a residence time of at least 0.5 seconds (40 CFR 60.283(a)(1)(iii).

40 CFR 60.284(b)(1) – a monitoring device that measures and records the combustion temperature at the point of incineration is required on the incinerator. The device shall be accurate to within plus or minus one percent of the temperature being monitored.

40 CFR 60.284(b)(2) – The No. 5 Smelt Tank shall be equipped with a monitoring device for the scrubbing media liquid pressure and pressure loss across the scrubber. Pressure drop measurement is to be accurate within plus or minus 2 inches of water; scrubbing liquid pressure monitoring is to be accurate within plus or minus 15 percent of the design scrubbing liquid supply pressure.

40 CFR 60.284(c)(1)-(3) – 12-hour average concentration of TRS and oxygen from the No. 5 Recovery Furnace shall be calculated, recorded and corrected to 10% oxygen per 40 CFR 60.284(c)(1)-(3).

40 CFR 60.284(c)(4) - Temperature shall be recorded once per shift from measurements obtained from the continuous temperature monitor required to be installed and operated on the incinerator.

40 CFR 60.284(d) – Semiannual excess emissions reporting requirements

40 CFR 60.284(d)(1)(i) – excess emissions from the No. 5 recovery furnace are all 12-hour average TRS emissions above 5ppm.

40 CFR 60.284(d)(1)(ii) – excess emissions from the No. 5 recovery furnace are all 6-minute average opacities that exceed 35 percent.

40 CFR 60.284(d)(2) – does not apply because there are no NSPS affected lime kilns

40 CFR 60.284(d)(3) – excess emissions from No. 9 Batch Digester, Chip PreOx Brown Stock Washers, and the No. 6 Multiple-effect Evaporators are all periods in excess of 5 minutes during which the temperature of the incinerator is less than 1,200 °F.

These NSPS requirements were included in the following sections of the renewed Tier I permit:

Section 6 – No. 5 Recovery Furnace
Section 7 – No. 5 Smelt Tank
Section 12 – No. 9 Batch digester, Chip preox brown stock washers, No. 6 multiple effect evaporator

7.3 National Emission Standards for Hazardous Air Pollutants (NESHAPS) – 40 CFR Parts 61 & 63

40 CFR 63 Subpart S (63.440) – Pulp and Paper Industry

Applicability – Clearwater is a Kraft Pulp and Paper Mill and is a major source of HAPs. Affected emissions units are the total of all HAP emission points in the pulping and bleaching systems.

The pulping systems are all process equipment beginning with the digester, and up to and including the last piece of pulp conditioning equipment prior to the bleaching system.

The bleaching systems are all process equipment after high-density pulp storage prior to the first application of oxidizing chemicals or reducing chemicals following the pulping system, up to and including the final bleaching stage.

Clearwater operates two pulping lines; the chip fiberline and the sawdust fiberline. The chip fiber line uses batch digesters and the sawdust fiberline uses continuous digesters.

***Standards for the pulping system*:**

40 CFR 63.443 contains HAP treatment requirements for kraft pulping systems. These treatment standards apply to the following pulping systems:

Low Volume High Concentration Systems (LVHC) - 40CFR 63.443(a)(1)(i)

- Digesters
- Turpentine recovery
- Evaporators
- Any other equipment serving the same function as those listed above

  Clearwater routes the LVHC gases to a thermal oxidizer to reduce HAP emissions to 20 ppm @ 10% O_2, the backup system is to route the LVHC gases with the primary fuel into the flame zone of the lime kilns.

Other Named Streams - 40 CFR 63.443(a)(1)(ii – v) (HVLC)

- Knotter systems with emissions greater than or equal to 0.1 pound HAP per ton of oven dried pulp (ODP).The knotter system equipment includes the knotter, knot drainer tanks, ancillary tanks, and any other equipment serving the same function as those previously listed.

  Clearwater's sawdust line does not have a knotter.

  The chip line has knotter systems which are all enclosed with one exception, the knotter rejects tank on the chip system vents to the atmosphere. The knotter rejects tank on the chip system was found to emit less than 0.1 lb MeOh/ODST and is exempt from collection and control.

- Screens systems with emissions greater than or equal to 0.2 pound HAP per ton of ODP.

  Clearwater's sawdust line screening operation is totally enclosed and is not vented to the atmosphere, therefore the sawdust screening operations does not meet the applicability criteria, there is no venting- it follows that emissions are below 0.2 HAP *pound per ton of ODP and is exempt from collection.*

  Clearwater's chip line has 4 screens that are collected and treated in a thermal oxidizer or one of two lime kilns

- Knotter and screen systems with emissions greater than or equal to 0.3 pound HAP per ton of ODP.

  Clearwater's sawdust line does not have a knotter; therefore there is not a "knotter and screen" system.

  Clearwater's chip line has a knotting and screening operation that has only one vent (knotter rejects tank) and emissions were found to be less than 0.1 lb methanol/ODS and is therefore exempt from collection and treatment

- Decker systems that use process water or water that has HAPs greater than 400 ppm by weight. Decker systems are defined as all equipment used to thicken the pulp slurry or reduce its liquid content after the pulp washing system and prior to high-density pulp storage.

Clearwater uses clean hot water in the sawdust line decker system[5] and is therefore exempt from collection.

Clearwater dewaters the pulp in the chip line using 5 presses[6]. The application did not provide a discussion regarding the concentration of HAP in the wash water -therefore the presumption is that HAP concentrations are greater than 400 ppm. Table 7.1 lists the decker systems within the chip line.

Table 7.1 Decker Systems in Chip Line - HVLC

Emissions unit	Control Device	Emissions Standard
Oxygen Press North	HVLC/NCG incinerator or one of two lime kilns	• Reduce total HAPs by 98% by weight, or • Thermally oxidize HAPs to 20 ppm @10% O_2, or • Thermally oxidize HAPs 1600 F for 0.75 seconds, or • Introduce the HAP stream with the primary fuel into the flame zone of a boiler, lime kiln, or recovery furnace; or introduce the HAP stream with the combustion air in a boiler or recovery furnace with a rated heat input capacity of 150 MMBtu/hr or greater.
Oxygen Press South		
Pressate Receiver South		
Pressate Storage Tank		
No. 1 Post Oxygen Wash Press		
No. 1 Post Oxygen Press Dilution Conveyor		
No. 1 Post Oxygen Press Level Tank		
No. 2 Post Oxygen Washer Press Feed Tank		
No. 2 Post Oxygen Wash Press	None - Emissions are offset from reductions at other sources as part of the Clean Condensate Alternative	
No. 2 Post Oxygen Wash Press Dilution Conveyor		
No. 2 Post Oxygen Wash Press Level Tank		
No. 3 Post Oxygen Wash Press		

- Each pulp washing system. Pulp washing systems includes all equipment used to wash pulp and separate spent cooking chemicals following the digester system and prior to the bleaching system, oxygen delignification system, or paper machine system. Pulp washing systems must be treated to standards listed in Table 7.2. The pulp washing systems within the chip and sawdust lines are listed in Table 7.2 as is the type of air pollution control that is used.

[5] CLEAN CONDENSATE ALTERNATIVE PLAN for Potlatch Corporation, October 19, 2004, page 4-3, Section 4.4 Sources Exempt from Collection.

[6] CLEAN CONDENSATE ALTERNATIVE PLAN for Potlatch Corporation, October 19, 2004, page 4-1.

Table 7.2 Pulp Washing Systems within the Chip and Sawdust Lines - HVLC

Emissions unit	Control Device	Emissions Standard
No. 2 Pre Oxygen Washer Feed Tank (CL[1])	HVLC/NCG incinerator or one of two lime kilns	• Reduce total HAPs by 98% by weight, or • Thermally oxidize HAPs to 20 ppm @10% O_2, or • Thermally oxidize HAPs 1600 F for 0.75 seconds, or • Introduce the HAP stream with the primary fuel into the flame zone of a boiler, lime kiln, or recovery furnace; or introduce the HAP stream with the combustion air in a boiler or recovery furnace with a rated heat input capacity of 150 MMBtu/hr or greater.
No. 1 Pre Oxygen Washer (CL)		
No. 1 Pre Oxygen Washer Filtrate Tank (CL)		
No. 1 Pre Oxygen Washer (CL)		
No. 2 Pre Oxygen Washer (CL)		
No. 2 Pre Oxygen Washer Filtrate Tank (CL)		
Brownstock Washers Hood (SL[2])		
No. 1 Filtrate Tank (SL)		
No. 2 Filtrate Tank (SL)		
No. 3 Filtrate Tank (SL)		
No. 4 Filtrate Tank (SL)		
Soap Tank (SL)		
Foam Tank (SL)		

- Oxygen delignification systems. Oxygen delignification systems include: systems that uses oxygen to remove lignin from pulp, blow tanks, washers, filtrate tanks, and any interstage pulp storage. Emissions from the Oxygen delignification systems must meet standards listed in Table 7.3.

Clearwater's sawdust line does not have an oxygen delignification system

Clearwater's chip line has an oxygen delignification system. Emissions from the oxygen delignification system are controlled as indicated in Table 7.3

Table 7.3 Oxygen Delignification Systems within the Chip Line - HVLC

Emissions unit	Control Device	Emissions Standard
Oxygen Delignification Blow Tank	Wet Scrubber	Reduce total HAPs by 98% by weight
No. 1 Post Oxygen Wash Press (CL[1])	HVLC/NCG incinerator or one of two lime kilns	• Reduce total HAPs by 98% by weight, or • Thermally oxidize HAPs to 20 ppm @10% O_2, or • Thermally oxidize HAPs 1600 F for 0.75 seconds, or • Introduce the HAP stream with the primary fuel into the flame zone of a boiler, lime kiln, or recovery furnace; or introduce the HAP stream with the combustion air in a boiler or recovery furnace with a rated heat input capacity of 150 MMBtu/hr or greater.
No. 1 Post Oxygen Wash Press Dilution Conveyor (CL)		
No. 1 Post Oxygen Wash Press Level Tank (CL)		
No. 1 Post Oxygen Washer Filtrate Tank (CL)		
No. 2 Post Oxygen Washer Press Feed Tank (CL)		
No. 2 Post Oxygen Wash Press (CL)	None - Emissions are offset from reductions at other sources as part of the Clean Condensate Alternative	
No. 2 Post Oxygen wash Press Dilution conveyor (CL)		
No. 2 Post Oxygen Wash Press Level Tank (CL)		
No. 3 Post Oxygen Wash Press (CL)		
Oxygen Delignification Reactor Vent		

1) CL = Chip Line

Pulping Systems Emissions Standards (40 CFR 63.443)

Pulping systems shall be enclosed and vented to a closed-vent system that is routed to a control device.

Treatment standards must have been achieved for LVHC systems by April 16, 2001 (40 CFR 60.440(d)).

Treatment standards for all HVLC systems must have been achieved by April 17, 2006 (40 CFR 60.440(d)(1)).

Treatment standards for all systems are listed below (40 CFR 63.443(d)(1)-(4)):

- Reduce total HAP emissions by 98% or more by weight, or
- Reduce total HAP emissions using a thermal oxidizer to 20 ppm or less, or
- Reduce total HAP emissions in a thermal oxidizer operating at 1,600 °F with a minimum residence time of 0.75 seconds, or
- Reduce HAP emissions by one of the following:
    1) Use a boiler, lime kiln, or recovery furnace by introducing the HAP emissions with the primary fuel into the flame zone, or
    2) Use a boiler or recovery furnace with a heat input capacity greater than or equal to 150 MMBtu/hr by introducing the HAP stream with the combustion air.
- A clean condensate alternative treatment method (40 CFR 63.447) is allowable for pulping systems emissions except for those in the LVHC system. The clean condensate alternative must reduce HAP emissions at least to the level that would be obtained by the above specified treatment methods. A summary of the clean condensate alternative is provided below.

Clean Condensate Alternative

As an alternative to collecting and treating all of the named HVLC gas streams to the standards specified in 40 CFR 63.443(d)(1)-(4) the operator may elect, as an alternative, to treat liquid waste streams to reduce HAP (methanol[7]) emissions to achieve reductions equivalent to reductions that would have occurred by treating all of the HVLC gases to standards specified in 40 CFR 63.443(d)(1)-(4). The operator may also elect to treat a portion of the named HVLC gases and treat liquid waste streams to achieve the remainder of the necessary reductions. This alternative is defined as the Clean Condensate Alternative (CCA) and is included in the regulations at 40 CFR 63.447.

CCA emissions reductions are creditable if:

- They are not required by any other applicable requirement (40 CFR 63.447(d)(2)
- They result from emissions reductions that occur above and beyond what is otherwise required; however emissions reductions due to over treating emissions to provide a compliance "cushion" can not be used.[8]
- They occur as a result of improved wastewater treatment at aerated storage basins (ASB) beyond what is required by an applicable requirement.[9]

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[7] Because the majority of all non-chlorinated HAP emissions from process equipment and in pulping process condensates are methanol, in most cases the owner or operator has the option of measuring methanol as a surrogate for total HAP. (Federal Register, April 15, 1998, page 18511, k. Test Methods)

[8] EPA Memorandum, Clean Condensate Alternative, Stephen D. Page, Director, Office of Air Quality Planning and Standards, April 8, 2008

[9] EPA Region 4 Letter to Buckeye, April 3. 2006 (Emissions Reductions due to improvements at aerated storage basins are creditable reductions provided reductions are verifiable and not otherwise needed to meet regulatory requirements)

Clearwater's has elected to use the CCA, the emissions reductions occur from:

- Controlling process condensate streams in the ASB beyond what is required by 40 CFR 63.445 by adding two aerators to the ASB; and
- By installing a wet scrubber to control emissions from the oxygen delignification blow tank which is a named HVLC gas stream.

As required by the regulation, emissions reductions for CCA are determined from baseline conditions. Baseline conditions are defined as those conditions existing on December 17, 1993. Following are issues relevant to the baseline conditions:

- On December 17, 1993 Clearwater already collected and treated a portion of the named HVLC streams. With the exception of the oxygen delignification blow tank all of the HVLC sources listed in Table 7.7 were collected and treated on the baseline date.

- In 1994 Clearwater added two additional aerators to the aerated storage basin (ASB) in anticipation of compliance with condensate treatment standards[10] (MACT I/Phase I). In order to determine emissions from the facility that occurred on December 17, 1993 Clearwater suspended operation of these two aerators and conducted condensate treatment performance tests in April and July of 2004. In these tests the fraction of methanol biodegraded (f_{bio}) in the aerated storage basin was determined to be 0.978, demonstrating that the addition of the two aerators was not needed to comply with MACT I/Phase I standard for f_{bio} equal to or greater than 0.92.

Table 7.4 summarizes the baseline emissions, emissions that would occur from treating all untreated HVLC gases (or "Conventional Treatment), and emissions from the CCA alternative.

Table 7.4 Baseline HAP Emissions, Conventional Treatment Emissions, and CCA Emissions

Emissions Source Group	Baseline Emissions (T/yr)	Emissions While Treating all untreated HVLC Gases Using "Conventional Treatment" (T/yr)	Emissions From CCA (T/yr)
HVLC Emissions minus O_2 Blow Tank	244[b] } Total = 818	4.9[c] } Total ~ 16	244[b] } Total ~ 256
HVLC from O_2 Blow Tank	574[a]	11.5[c]	11.5[c]
Condensate Treatment (ASB)	764[d]	764[d]	332[e]
Total Emissions	1582[e]	780	588[e]

a) Appendix D Clearwater's (Formerly Potlatch) June 19, 2007 Tier I Operating Permit renewal application, page 4-4, Table 2
b) 818-574=244, Emissions from HVLC sources minus the oxygen delignification system. This value represents emissions that will remain untreated under the Clean Condensate Treatment proposal. Appendix D of Clearwater (Formerly Potlatch)'s June 19, 2007 Tier I Operating Permit renewal application, page 5-8
c) Based on 98% treatment efficiency; emissions reduction that would have occurred with conventional treatment
d) Appendix D of Clearwater's (Formerly Potlatch) June 19, 2007 Tier I Operating Permit renewal application, page 5-7, Table 6
e) Appendix D of Clearwater's (Formerly Potlatch) June 19, 2007 Tier I Operating Permit renewal application, page 5-9, Table 8

The emissions rates provided in Table 7.4 are a summary of the emissions data provided in Clearwater's June 19, 2007 application materials (Appendix D). In order for the CCA alternative to be acceptable the alternative must result in methanol emissions less than 780 pounds per day, which is the emission rate that would have been achieved if all of the HVLC gases were collected and treated. Under the CCA alternative emissions scenario actual methanol emissions are estimated to be 588 pounds per day. However Clearwater has proposed accepting a CCA emission limitation equivalent to a methanol emission rate of 763[11] pounds per day, which is an emission rate less than would have been achieved if

[10] Appendix D of Potlatch's June 19, 2007 Tier I Operating Permit renewal application, page 3-3
[11] Table 7.5 of this Statement of Basis

all of the HVLC gases were collected and treated (780 pounds per day). Table 7.5 gives the emissions from each source group that when aggregated totals the emission rate of 763 pounds per day. Table 7.6 lists the named HVLC gases that will not be treated in lieu of the CCA emissions reductions.

Table 7.5 Proposed Methanol Emissions Under the CCA

Source	Methanol Emissions (lb/day)
HVLC that are not treated	244 [a]
Aerated Storage Basin & O_2 Delignification Blow Tank	519[b]
Total Emissions	763

a) Appendix D of Clearwater's (Formerly Potlatch) June 19, 2007 Tier I Operating Permit renewal application, page 5-8
b) Appendix D of Clearwater's (Formerly Potlatch) June 19, 2007 Tier I Operating Permit renewal application Page 6-2, Section 6.3.3

In summary, Clearwater's clean condensate alternative consists of collecting and treating the oxygen delignification blow tank gases in a wet scrubber, adding two additional aerators in the storage basin in combination of collecting and treating some of HVLC gases. Table 7.7 lists the HVLC gases that are captured and treated using the "conventional" treatment method prescribed by the regulation; the conventional emission standards are included in renewed Tier Permit Condition 17.3. Table 7.6 lists the HVLC gases that are not captured and treated in lieu of emissions reduction obtained by the Clean Condensate Alternative.

Clearwater's CCA alternative numerical methanol emission rate is 519[12] pounds per day from the ASB and the oxygen delignification blow tank combined as an annual average. This emission limitation is included in the renewed Tier I permit condition 17.6.2. The untreated HVLC emission rate of 244 pounds per day listed in Table 7.5 is part of the baseline condition and an emission rate limit is not needed.

Table 7.6 Named HVLC Gas Streams That Are Not Treated

Named Stream	Emissions Standard
No. 2 Post Oxygen Wash Press	Emissions are offset from reductions at other sources as part of the Clean Condensate Alternative
No. 2 Post Oxygen Wash Press Dilution Conveyor	
No. 2 Post Oxygen Wash Press Level Tank	
No. 3 Post Oxygen Wash Press	
No. 2 Post Oxygen Wash Press (CL)	
No. 2 Post Oxygen wash Press Dilution conveyor (CL)	
No. 2 Post Oxygen Wash Press Level Tank (CL)	
No. 3 Post Oxygen Wash Press (CL)	
Oxygen Delignification Reactor Vent	

[12] Appendix D of Potlatch's June 19, 2007 Tier I Operating Permit renewal application Page 6-2, Section 6.3.3

Table 7.7 Named HVLC Gas Streams That Are Treated

Named Stream	Control Device	Emissions Standard
Oxygen Press North	NCG incinerator or one of two lime kilns	Reduce total HAPs by 98% by weight, or Thermally oxidize HAPs to 20 ppm @10% O_2, or Thermally oxidize HAPs 1600 F for 0.75 seconds, or Introduce the HAP stream with the primary fuel into the flame zone of a boiler, lime kiln, or recovery furnace; or introduce the HAP stream with the combustion air in a boiler or recovery furnace with a rated heat input capacity of 150 MMBtu/hr or greater.
Oxygen Press South		
Pressate Receiver South		
Pressate Storage Tank		
No. 1 Post Oxygen Wash Press		
No. 1 Post Oxygen Press Dilution Conveyor		
No. 1 Post Oxygen Press Level Tank		
No. 2 Post Oxygen Washer Press Feed Tank		
No. 2 Pre Oxygen Washer Feed Tank (CL[1])		
No. 1 Pre Oxygen Washer (CL)		
No. 1 Pre Oxygen Washer Filtrate Tank (CL)		
No. 1 Pre Oxygen Washer (CL)		
No. 2 Pre Oxygen Washer (CL)		
No. 2 Pre Oxygen Washer Filtrate Tank (CL)		
Brownstock Washers Hood (SL[2])		
No. 1 Filtrate Tank (SL)		
No. 2 Filtrate Tank (SL)		
No. 3 Filtrate Tank (SL)		
No. 4 Filtrate Tank (SL)		
Soap Tank (SL)		
Foam Tank (SL)		
No. 1 Post Oxygen Wash Press (CL[1])		
No. 1 Post Oxygen Wash Press Dilution Conveyor (CL)		
No. 1 Post Oxygen Wash Press Level Tank (CL)		
No. 2 Post Oxygen Washer Press Feed Tank (CL)		
Oxygen Delignification Blow Tank	Wet Scrubber	Reduce total HAPs by 98% by weight

Monitoring to Assure Compliance with the CCA

The numerical CCA methanol emission rate limit from the ASB and the methanol scrubber stack combined is 519[13] pounds per day as an annual average (emissions per each consecutive 12-months). Monitoring must assure compliance with this CCA emission rate limit. Monitoring requirements are included in renewed Tier I permit conditions 17.18 through 17.28.

Clearwater will conduct quarterly condensate treatment performance tests to determine methanol emission rates from the ASB and to establish operating ranges for surrogate parameters to assure compliance. Between quarterly condensate treatment performance tests Clearwater will monitor:

- Daily methanol loading[14] to the ASB
- Daily soluble COD loading to the ASB
- Total aerator horsepower

Daily methanol emissions from the pond will be determined using the data collected from the most

[13] Appendix D of Potlatch's June 19, 2007 Tier I Operating Permit renewal application Page 6-2, Section 6.3.3

[14] Appendix D of Potlatch's June 19, 2007 Tier I Operating Permit renewal application, Page 6-2, Section 6.5.1

recent condensate treatment test, including the percent destruction of methanol (i.e. f_{bio}), in conjunction with daily methanol loading rates. Emissions from the pond will be determined by multiplying the daily methanol loading times the destruction of methanol determined during the most recent test. Each month the permittee shall determine the emission rate of methanol in pounds per day as an annual average (each consecutive 12 months).

The oxygen delignification blow tank scrubber stack will be periodically tested to determine methanol emissions rates and operating parameters that will assure compliance between emissions testing. The following parameters will be monitored daily as surrogates for emissions rate:

- Scrubber water temperature
- Scrubber water flow rate
- Scrubber fan operating status (on/off)
- Throughput of the oxygen delignification reactor (oven dry tons per day)

Performance tests for methanol emissions from the oxygen delignification blow tank scrubber stack will determine an emission factor of pounds of pounds of methanol emitted per oven dry ton of pulp processed through the reactor. This emissions factor will be multiplied by the daily throughput of the oxygen delignification reactor to obtain an emissions rate. During the source test scrubber operating parameters for water temperature and water flow will be determined. Continuous operation of the scrubber within these parameters will assure that the emissions unit emits methanol at or below the methanol emissions factor established during the most recent source test. Each month the permittee shall determine the emission rate of methanol in pounds per day as an annual average (each consecutive 12 months).

Clearwater performs daily monitoring of the ASB in accordance with 40 CFR 63.453(j)(2) to assure compliance with the hazardous air pollutant treatment standard for pulping process condensates of 40 CFR 63.446(e)(3) which is to achieve a destruction of total HAPs by at least 92% by weight. In accordance with 40 CFR 63.453(j)(2) the EPA approved[15] alternative monitoring parameters are influent soluble COD loading in pounds and the total aerator horsepower. The ratio of COD loading in pounds to total aerator horsepower is the site specific "surrogate" parameter for demonstrating compliance with the hazardous air pollutant treatment standard for pulping process condensates of 40 CFR 63.446(e)(3) which is to achieve a destruction of total HAPs by at least 92% by weight.

Bleaching System Emissions Standards for the (40 CFR 63.445)

40 CFR 63.445 contains HAP treatment requirements for kraft bleaching systems that use any chlorinated compounds. These treatment standards apply to:

Chip Fiberline Bleaching System

- D-1 stage tower, washer hood, and north and south filtrate tanks; and
- D-2 stage tower, washer hood, and filtrate tank.

Sawdust Fiberline Bleaching System

- D-1 stage tower, washer hood, and filtrate tank; and
- D-1 stage tower, washer hood, and filtrate tank.

[15] EPA September 5, 2002 letter from Jeff KenKnight, Manager, Federal and Delegated Air Programs Unit, to Mr. J. Frank Radle, Potlatch

Treatment required by April 16, 2001 is:

Bleaching systems shall be enclosed and routed to a control device. The enclosure and vent system shall meet the requirements of 40 CFR 63.450. These requirements are very prescriptive; all of the details of the regulation are not repeated here. However, a summary of the requirements for the enclosure and vent system are provided below:

- The enclosure shall maintain negative pressure as demonstrated by the procedures of 40 CFR 63.457(e). Enclosures shall be maintained in the closed and sealed position as during the performance test except during sampling, inspection, maintenance, or repairs.
- Each component of the closed vent system used to comply that is operated at a positive pressure and located prior to a control device shall be designed for and operated with no detectable leaks of 500 parts per million or more as determined by an instrument using the procedures of 40 CFR 63.457(d).
- Each bypass line that could divert HAP containing gases to the atmosphere without meeting the emission limitations of 40 CFR 63.443 shall either:
    1. install, calibrate and maintain and operate a flow monitor capable of taking readings as frequently as specified in 40 CFR 63.454(e); or
    2. For by pass lines that are not computer controlled the operator shall maintain the bypass valves in a closed position with a car seal or a seal placed on the valve in such a way it cannot be opened without breaking the seal.

The bleaching systems standards are included in Tier I permit conditions 17.7 through 17.10.

Standards for the pulping process condensates (40 CFR 63.445)

Standards for pulping process condensates are included in Permit Conditions 17.11 – 17.16. These standards provide options for determining which condensate streams are collected and treated as well as what standard they must be treated to. At the time of permit renewal Clearwater indicated that they have elected to collect condensate streams so that the total collected is 11.1 lb/TODP (this is combination #3 in Permit Condition 17.12). The affected equipment and standards options are discussed below.

The pulping standards apply to the following equipment:

A. 1. Digester systems
   2. Turpentine recovery systems
   3. Condensate from each evaporator system each stage where weak liquor is introduced; and each evaporator vacuum system for each stage where weak liquor is introduced.
   4. Each HVLC system
   5. Each LVHC system; or

B. Condensates from 4 and 5 listed above plus other condensate streams that contain 65% of the HAPs that are contained in 1, 2 and 3 above; or

C. Collect condensate streams from 1 through 5 listed above such that the total collected is 11.1 lb/TODP.

At the time of the permit renewal Clearwater indicated that they were electing to comply with C listed above. Clearwater also indicated that the elected standard would be to treat condensates to remove 10.2 lb/TODP or more of total HAPs, or achieve a total HAP concentration of 330 ppm or less by weight at the outlet of the control device. Pulping process standards are included in the Sections 17.11 through 17.16 of the renewed Tier I permit.

40 CFR 63 Subpart MM (63.860) – Chemical Recovery Combustion Sources at Kraft Pulp Mills

Chemicals used in the production of paper in the kraft pulp mill are recovered in a chemical recovery system. The chemical recovery system includes combustion sources that are regulated by the National Emissions Standards for Hazardous Air Pollutants. The sources that are affected by the standard are the No. 4 and No. 5 recovery furnaces, the No. 4 and No. 5 smelt dissolving tanks, and No. 3 and No. 4. Lime Kilns No. 2 is not part of the Chemical Recovery Combustion Sources at the Pulp Mill because it does not process lime mud from the "Kraft' process; it is permitted to only process lime rock from outside sources. However, it should be noted that Clearwater's application had inadvertently included the #2 Lime Kiln as applicable to Subpart MM. Clearwater addressed this error when they provided comment on the draft permit which was made available for public comment by retracting the part of their application which included the #2 Lime Kiln as being applicable to Subpart MM.

All affected emissions units are considered existing emissions units because the initial startup date was before March 13, 2004 (40 CFR 63.863.a). The compliance date for standards is March 13, 2004 (40 CFR 63.863(a).

Subpart MM is included in Section 5 of the renewed Tier I permit. Should there be a conflict between Section 5 of the permit and Subpart MM, Subpart MM shall govern.

Standards (40 CFR 63.862)

Standards for HAP metals are expressed as particulate matter standards.

In accordance with 40 CFR 63.862(a)(1)(i)A the PM emissions standard for the existing recovery furnaces (No. 4 & No. 5) is 0.044 grains per dry standard cubic foot corrected to 8 percent oxygen.

In accordance with 40 CFR 63.862(a)(1)(i)B the PM emissions standard for the existing smelt dissolving tanks (No. 4 & No. 5) is less than or equal to 0.2 pound per ton of black liquor solids fired.

In accordance with 40 CFR 63.862(a)(1)(i)C the PM emissions standard for the existing lime kilns (No. 2, No. 3 & No. 4) shall be less than or equal to 0.064 grain per dry standard cubic foot corrected to 10 percent oxygen.

Clearwater does not have any "new" affected emissions units therefore the standard for new units included in 40 CFR 63.862(b)&(c) do not apply.

As an alternative to the 40 CFR 63.862(a)(1)(i) emission limits (Permit Conditions 5.1 through 5.2), in accordance with 40 CFR 63.862(a)(ii) the permittee may seek DEQ approval of alternative emission limits by using the methods in 40 CFR 63.865(a)(1) and (2). At the time of the Tier I permit renewal Clearwater has not pursued alternative standards, however the regulations include this option and it has been included in the permit.

Compliance Dates (40 CFR 63.863)

In accordance with 40 CFR 63.863(a) the owner or operator of an existing affected source or process unit must comply with the requirements in Subpart MM no later than March 13, 2004. Clearwater's Tier I renewal application certifies that they are incompliance with the MACT requirements for Chemical Recovery Combustion Sources at Kraft Pulp Mills located at their facility. Affected emissions units are the No. 4 and No. 5 recovery furnaces, No. 4 and No. 5 smelt dissolving tanks, and

Lime Kilns No. 2, No. 3 and No. 4. The dates by which Clearwater must demonstrate compliance with the requirements for the No. 4 and No. 5 recovery furnaces, No. 4 and No. 5 smelt dissolving tanks, and Lime Kilns No. 3 and No. 4 follows regulatory timeframes specified in the regulation. However, Clearwater's compliance date for the No. 2 Lime Kiln requires discussion. Following is that discussion.

In accordance with 40 CFR 63.7(e)(2)(iv) a waiver of the required compliance tests on the No. 2 Lime Kiln that were required within 180 days of March 13, 2004 may be granted because another means of demonstrating compliance has been used (the No. 2 Lime Kiln has not been operated since the March 13, 2004 compliance date). In accordance with 40 CFR 63.7(h)(4) approval of the compliance test waiver may be made when a site specific test plan, including a schedule by which testing will be conducted, is approved by DEQ. Upon issuance of the renewed Tier I operating permit, which constitutes DEQ approval of a site specific test plan (§63.7(a)(c)(2)), a waiver of the requirement to test within 180 days of the compliance date will have been granted in accordance with §63.7(h)(2) and §63.7(h)(4). The site specific test plan requires testing and establishing scrubber operating parameters within 180 days of startup of the No. 2 Lime Kiln instead of 180 days of the compliance date.

Monitoring requirements (40 CFR 63.864)

40 CFR 63.864(d) - Continuous opacity monitoring system (COMS). The owner or operator of each affected kraft or soda recovery furnace or lime kiln equipped with an ESP must install, calibrate, maintain, and operate a COMS according to the provisions in §§63.6(h) and 63.8 and paragraphs (d)(1) through (4) of §§63.864(d)(1)-(4). ESPs are used to control emissions from recovery furnace No. 4 and No. 5, and lime kilns No. 3 and No.4; therefore a COMs must be installed on these emissions units. The No. 2 lime kiln uses a venturi scrubber to control emissions and is not required to have COMs.

40 CFR 63.864(e) - Continuous parameter monitoring system (CPMS). For each CPMS required in this section, the owner or operator of each affected source or process unit must meet the requirements in paragraphs (e)(1) through (14) of this section.

(e)(1)-(9) These sections of the rule do not contain any requirements, they are marked as "reserved".

(e)(10) This section applies to kraft recovery furnaces, kraft lime kilns, and kraft smelt dissolving tanks equipped with a wet scrubber that is used to achieve compliance. Affected units at the Clearwater facility are the No. 4 and No. 5 smelt tank, and No. 2 Lime Kiln. Clearwater must install, calibrate, maintain, and operate a CPMS that can be used to determine and record the pressure drop across the scrubber and the scrubbing liquid flow rate at least once every successive 15-minute period using the procedures in §63.8(c), as well as the procedures in the following paragraphs:

The monitoring device used for the continuous measurement of the pressure drop of the gas stream across the scrubber must be certified by the manufacturer to be accurate to within a gage pressure of ±500 pascals (±2 inches of water gage pressure) [Note - EPA has approved monitoring percent of fan load instead of pressure drop for the No. 5 Smelt Tank, a copy of the approval is in Appendix C of this Statement of Basis]; and

The monitoring device used for continuous measurement of the scrubbing liquid flow rate must be certified by the manufacturer to be accurate within ±5 percent of the design scrubbing liquid flow rate.

(e)(11) This section applies to semichemical combustion unit equipped with an RTO Clearwater does not have this equipment and this section does not apply to them.

(e)(12) Applies only to Weyerhaeuser Paper Company's Cosmopolis, Washington facility.

(e)(13) This section allows the owner or operator of each affected source or process unit that uses an ESP, wet scrubber, RTO, or fabric filter may monitor alternative control device operating parameters subject to prior written approval by the Administrator. Clearwater has not pursued alternatives and is subject to the specific requirements of the rule.

(e)(14) The owner or operator of each affected source or process unit that uses an air pollution control system other than an ESP, wet scrubber, RTO, or fabric filter must provide to the Administrator an alternative monitoring request that includes the site-specific monitoring plan. Clearwater does not use systems other than an ESP or wet scrubber.

40 CFR 63.864(f) – is a reserved section of the regulation.

40 CFR 63.864(g) - The gaseous organic HAP standard of Subpart MM does not apply to Clearwater because they do not have any "new" affected emissions units.

40 CFR 63.864(h) – is a reserved section of the regulation.

40 CFR 63.864(i) - *Determination of operating ranges.* During the initial performance test required in §63.865, the owner or operator of any affected source or process unit must establish operating ranges for the monitoring parameters that are required to be established by §63.864(e)(10)-(14). As discussed above in *40 CFR 63.864(e)* operating ranges are only required to be established for affected emissions units controlled by a wet scrubber (the No. 4 and No. 5 smelt tanks, and No. 2 Lime Kiln). The owner or operator has the option to base operating ranges on values recorded during previous performance tests or conduct additional performance tests for the specific purpose of establishing operating ranges, provided that test data used to establish the operating ranges are or have been obtained using the test methods required in this subpart. The owner or operator may establish expanded or replacement operating ranges for the monitoring parameter values listed in paragraphs (e)(10) through (14) of this section provided the methods specified by this regulation are used to establish the ranges.

Table 7.8 details the operating ranges that have been established for all scrubbers used to control emission from emissions units affected by Subpart MM. As discussed in detail in the *Compliance Dates (40 CFR 63.863)* section of this statement of basis for Subpart MM, since the No. 2 Lime Kiln has not operated since the affective date of the rule a site specific test plan has been included in the permit that requires testing and establishing scrubber operating parameters within 180 days of startup of the No. 2 Lime Kiln.

Table 7.8 No. 4 and No. 5 Smelt Tank Scrubber Compliance Indicators and Operating Ranges

Emission Unit	Compliance Indicator	Indicator of Excursion
#4 Smelt Tank	Scrubbing media flow rate (MACT Required)	< 43[a] gpm, 3-hr block average
	Pressure drop (MACT Required)	< 17[a] inches water gage, 3-hr block average
#5 Smelt Tank	Scrubbing media flow rate (MACT Required)	<350[b] gpm, 3-hr block average
	Percent of load to fan motor	Fan load < 55%[c], 3-hr block average

a. DEQ approved source test April 4, 2005
b. DEQ approved source test May 16, 2005
c. April 13, 2007 letter from Nancy Helm of EPA to Steven Waldher, Clearwater (Formerly Potlatch)

40 CFR 63.864(k) On-going compliance provisions

Following the compliance date, owners or operators of all affected sources or process units are required to implement corrective action if the following monitoring exceedances occur.

i) For a new or existing kraft or soda recovery furnace or lime kiln equipped with an ESP, when the average of ten consecutive 6-minute averages result in a measurement greater than 20 percent opacity (ESPs are used to control emissions from existing recovery furnace No. 4 and No. 5, and existing line kilns No. 3 and No.4);

(ii) For a new or existing kraft or soda recovery furnace, kraft or soda smelt dissolving tank, kraft or soda lime kiln, or sulfite combustion unit equipped with a wet scrubber, when any 3-hour rolling average[16] parameter value is outside the range of values that have been established. (This standard applies to the #4 and #5 smelt tanks because they use a wet scrubber to control emissions).

(iii) For a new or existing semichemical combustion unit equipped with an RTO, when any 1-hour average temperature falls below the temperature established in paragraph (j) of this section (Clearwater does not use an RTO);

(iv) applies only to Weyerhaeuser Paper Company's Cosmopolis, Washington facility

(v) For an affected source or process unit equipped with an ESP, wet scrubber, RTO, or fabric filter and monitoring alternative operating parameters (Clearwater is not using alternative operating parameters); and

(vi) For an affected source or process unit equipped with an alternative air pollution control system and monitoring operating parameters approved by the Administrator as established outside the range of parameter values established (Clearwater is not using and alternative control system).

Following the compliance date, owners or operators of all affected sources or process units are in violation of the standards of §63.862 if the following monitoring exceedances occur:

[16] The NESHAP averaging period is specified as "any 3-hour average " (40 CFR 63.864(k)((1)(ii). EPA has clarified that this is a 3-hour rolling average (email from Leonard Lazarous, USEPS, 4/13/07 to DEQ). DEQ TRIM record number – 2009AAG3969

(i) For an existing kraft or soda recovery furnace equipped with an ESP, when opacity is greater than 35 percent for 6 percent or more of the operating time within any quarterly period (ESPs are used to control emissions from existing recovery furnace No. 4 and No. 5);

(ii) For a new kraft or soda recovery furnace or a new or existing lime kiln equipped with an ESP, when opacity is greater than 20 percent for 6 percent or more of the operating time within any quarterly period (Clearwater does not have a new recovery furnaces or new lime kilns);

(iii) For a new or existing kraft or soda recovery furnace, kraft or soda smelt dissolving tank, kraft or soda lime kiln, or sulfite combustion unit equipped with a wet scrubber, when six or more 3-hour rolling average parameter values within any 6-month reporting period are outside the range of values established in paragraph (j) of this section (Wet scrubbers are used on No. 4 and No. 5 Smelt Tank);

(iv) For a new or existing semichemical combustion unit equipped with an RTO, when any 3-hour average temperature falls below the temperature (Clearwater does not use a RTO);

(v) Applies only to Weyerhaeuser Paper Company's Cosmopolis, Washington facility (Emission Unit no. HD-14.

(vi) For an affected source or process unit equipped with an ESP, wet scrubber, RTO, or fabric filter and monitoring alternative operating parameters, when six or more 3-hour average values within any 6-month reporting period are outside the range of parameter values established (Clearwater is not using alternative parameters); and

(vii) For an affected source or process unit equipped with an alternative air pollution control system and monitoring operating parameters, when six or more 3-hour average values within any 6-month reporting period are outside the range of parameter values established (Clearwater is not using alternative air pollution control systems).

For purposes of determining the number of nonopacity monitoring exceedances, no more than one exceedance will be attributed in any given 24-hour period.

Performance test requirements and test methods (40 CFR 63.865)

The owner or operator of each affected source shall conduct testing in accordance with the requirements and test methods of 40 CFR 63.865 which are included in the Tier I permit. These testing requirements are not recited as part of this statement of basis.

Recordkeeping requirements (40 CFR 63.866)

The owner or operator must develop a written plan as described in §63.6(e)(3) that contains specific procedures for operating the source and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and control systems used to comply with the standards. The specific requirements for a startup, shutdown, and malfunction plan in accordance with 40 CFR 63.866(a) not recited in this statement of basis. The requirements are clear and reciting them here would not provide any value beyond what would be obtained from reading the regulation. However, these requirements are included in the permit.

The owner or operator of an affected source or process unit must maintain records of any occurrence when corrective action is required under §63.864(k)(1), and when a violation is noted under §63.864(k)(2).

In addition to the general records required by §63.10(b)(2), the owner or operator must maintain records of the following information:

(1) Records of black liquor solids firing rates in units of Mg/d or ton/d for all recovery furnaces and semichemical combustion units;

(2) Records of CaO production rates in units of Mg/d or ton/d for all lime kilns;

(3) Records of parameter monitoring data required under §63.864, including any period when the operating parameter levels were inconsistent with the levels established during the initial performance test, with a brief explanation of the cause of the deviation, the time the deviation occurred, the time corrective action was initiated and completed, and the corrective action taken;

(4) Records and documentation of supporting calculations for compliance determinations made under §§63.865(a) through (d);

(5) Records of monitoring parameter ranges established for each affected source or process unit.

Reporting requirements (40 CFR 63.867)

40 CFR 63.867(a) *Notifications.* The owner or operator must submit the applicable notifications from subpart A of this part, as specified in Table 1 of this subpart (also in Table 5.3 of the Tier I permit).

40 CFR 63.867(b) *Additional reporting requirements for HAP metals standards.* This section does not apply to Clearwater because they are not establishing an alternative emission standard in accordance §63.862(a)(1)(ii).

40 CFR 63.867(c) *Excess emissions report.* The owner or operator must report quarterly if measured parameters meet any of the conditions specified in paragraph (k)(1) or (2) of §63.864. This report must contain the information specified in §63.10(c) of this part as well as the number and duration of occurrences when the source met or exceeded the conditions in §63.864(k)(1), and the number and duration of occurrences when the source met or exceeded the conditions in §63.864(k)(2). Reporting excess emissions below the violation thresholds of §63.864(k) does not constitute a violation of the applicable standard.

(1) When no exceedances of parameters have occurred, the owner or operator must submit a semiannual report stating that no excess emissions occurred during the reporting period.

(2) The owner or operator of an affected source or process unit subject to the requirements of this subpart and subpart S of this part may combine excess emissions and/or summary reports for the mill.

40 CFR 63 Subpart JJJJ (63.3280) – Paper and Web Coating MACT

Applicability – Clearwater is a Kraft Pulp and Paper Mill and is a major source of HAPs and is therefore

affected by this regulation. Affected emissions units are those locations where a continuous layer of coating material is placed across the entire width or any portion of the width of a web substrate (including paper) and any associated curing/drying equipment between an unwind or feed station. Clearwater has two such paper coating lines.

The MACT includes emissions standards and requirements for determining compliance. Compliance may be achieved through the use of control devices or by using "as purchased" compliant coating materials. Clearwater has elected to determine compliance by the "as purchased" compliant coating method and does not use a control device to achieve compliance.

The provisions of the Paper and Web Coating MACT are included in Section 18 of the renewed Tier I permit.

Standards (40 CFR 63.3320)

Organic HAP emissions are limited to the level specified in paragraph (b)(1), (2), (3), or (4) of this section.

(1) No more than 5 percent of the organic HAP applied for each month (95 percent reduction) at existing affected sources, and no more than 2 percent of the organic HAP applied for each month (98 percent reduction) at new affected sources; or

(2) No more than 4 percent of the mass of coating materials applied for each month at existing affected sources, and no more than 1.6 percent of the mass of coating materials applied for each month at new affected sources; or

(3) No more than 20 percent of the mass of coating solids applied for each month at existing affected sources, and no more than 8 percent of the coating solids applied for each month at new affected sources.

(4) If you use an oxidizer to control organic HAP emissions, operate the oxidizer such that an outlet organic HAP concentration of no greater than 20 parts per million by volume (ppmv) by compound on a dry basis is achieved and the efficiency of the capture system is 100 percent. *(Does not apply to Clearwater because they do not use a oxidizer to control emissions).*

(c) Compliance with this subpart is demonstrated by following the procedures in §63.3370.

Operating Limits (40 CFR 63.3321)

Operating limits only apply if a control device is used to comply with standards. Clearwater does not use a control device, therefore the operating limits do not apply.

Compliance Date (40 CFR 63.3330)

Clearwater has two existing paper coating machines; the compliance date is December 5, 2005.

General Provisions of 40 CFR 63 applicable to Subpart JJJJ (40 CFR 63.3280 –Table 2)

Table 2 of Subpart JJJJ includes the general requirements of Subpart A which apply, as well as a listing of those that do not apply to the facility. Table 18.2 is included in the permit as a summary of only those requirements that do apply; the requirements that do not apply are not included.

Control Device Monitoring (40 CFR 63.3350)

§63.3350 does not apply because Clearwater does not use a control device to meet emissions standards.

Performance Tests (40 CFR 63.3360)

The organic HAP content must be determined using the procedures in §63.3360(c) when demonstrating compliance by using "as purchased" compliant materials. HAP content may be determined by using the specified testing methods or by using manufacturer supplied formulation data.

Demonstration of Compliance (40 CFR 63.3370)

In demonstrating compliance using the "as purchased' compliant coating the procedures of §63.3370(b) must be followed each month. Monthly monitoring must show that each coating material used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, or each coating material used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids. This is the compliance option that Clearwater indicated they intend to use.

The permittee may also demonstrate compliance using the option of as- applied "compliant' coating materials. Clearwater did not indicate that this option would be used, never-the-less this option was included in the permit. This section specifies how the allowable monthly emissions must be calculated and how the monthly emissions that actually occurred must be calculated. Compliance is demonstrated if the actual emissions are less than the allowable emissions.

Notifications and Reports – 40 CFR 63.3400

The permit has been written to summarize all the notification and reports that are required to be submitted. Many of the notifications listed in §63.3400 are not applicable to Clearwater because a control device is not used to demonstrate compliance. All of the notification and reporting requirements are included in the permit which is required for facilities that do not use a control device.

Recordkeeping – 40 CFR 63.3410

§63.410 specifies those records which must be kept by the permittee, including those required by General Provision 63.10(b)(2). Only those recordkeeping requirements that are applicable to facilities that use the "as purchased", or "as applied", compliant coating option of demonstrating compliance are included in the permit. A control device is not used to achieve compliance at this facility and those recordkeeping requirements applicable to control devices are not included in the permit. A continuous monitoring system (CMS) is not required if a control device is not used.

40 CFR 63 Subpart ZZZZ (63.3280) – Stationary Reciprocating Internal Combustion Engines MACT

Applicability – Affected sources are any existing, new, or reconstructed reciprocating internal combustion engines (RICE) of equal to or greater than 500 break horse power located at major or area source of HAPs[17], except RICE being tested at stationary test cell/stand. In short any RICE at a source is affected except for those on test stands.

In accordance with 40 CFR 63.6590(b) there are limited requirements for RICE that are defined as "emergency stationary RICE". Emergency RICE do not have to meet the requirements of this subpart

[17] Applicability of RICE to Units Less than 500 Brake Horsepower, Michael S. Alushin, EPA Director Compliance Assessment and Media Program Division Office of Compliance, September 17, 2004- EPA Applicability Determination Index

and of subpart A of this part except for the initial notification requirements of §63.6645(h). *Emergency stationary RICE* means any stationary RICE whose operation is limited to emergency situations and required testing and maintenance. Clearwater indicated that the RICE located at the facility meet the emergency RICE definition.

Only the notification requirements are applicable, since the Tier I permit application provided that notification there is no need to include the notification requirement of Subpart ZZZZ in the permit. Therefore, Subpart ZZZZ is not included in the permit.

7.4 Compliance Assurance Monitoring (CAM) - 40 CFR 64

The CAM rule under 40 CFR part 64 requires monitoring for specific emissions units at a facility that is subject to the title V regulations (required to obtain a Tier I operating permit from the State of Idaho). The CAM rule applies to a specific subset of emissions units at Clean Air Act title V facilities that meet the following requirements: (1) located at a major source that is required to obtain a title V permit (40 CFR part 70 or 71), (2) subject to an emission limit or standard for the applicable pollutant, (3) uses a control device to achieve compliance, (4) has potential precontrol emissions of the applicable pollutant from the unit that are at least at the major source level, and (5) is not otherwise exempt (i.e., units subject to New Source Performance Standards (NSPS) or National Emission Standard for Hazardous Air Pollutants (NESHAP) that were proposed after November 1990 are not subject to the CAM rule, units subject to Acid Rain requirements are not being subject to the CAM rule. Emissions equipped with a continuous compliance determination method that is required by a rule or permit, such a continuous emissions monitors, are also exempt from CAM (40 CFR 64.2(b)(vi)). Basically, CAM monitoring is specific to large emissions units at title V facilities that use add-on control devices to achieve compliance with emissions limits.

The emissions units that meet the applicability criteria are detailed in Appendix E of Clearwater's Tier I permit renewal application received by DEQ on June 19, 2007 and in an updated CAM plan submitted February 25, 2009. In these application materials emissions standards of New Source Performance Standards (NSPS) or National Emission Standard for Hazardous Air Pollutants (NESHAP) that were proposed after November 1990 are correctly indentified as not subject to the CAM rule. Table 7.9 of this statement of basis provides a summary of the CAM affected emissions units, approved monitoring per §64.6, and where necessary the schedule by which compliance testing shall be conducted in accordance with 40 CFR 64.6(b).

The only pollutants that are emitted by the facility that are affected by the CAM rule are particulate matter and sulfur dioxide. CAM is included in Section 19 of the Tier I permit for all emissions units.

Table 7.9 Summary of CAM

Emission Unit/Pollutant	Indicator	Monitoring Means/Device	Proposed Indicator Range	Schedule for Testing – 40 CFR 64.6(b)
#4 Power Boiler/ PM	Opacity	COMs , Install and operate using the methods and procedures in 40 CFR 60.13	≥ 15% 3-hr block average	NA
#4 Recovery Furnace/PM	Opacity	COMs in accordance with 40 CFR 63.864(d)	> 20%	NA
#4 Smelt Dissolving Tank/ PM	Pressure Drop & Scrubbing media flow rate	Continuous parameter monitoring required by 40 CFR 63.864(e)(10) (Tier I permit Condition 5.11)	Pressure Drop ≥ 17 inches water gauge; and scrubbing media flow rate ≥ 43 gallons/minute (3-hr block averages)	NA
#5 Recovery Furnace/ PM		COMs in accordance with 40 CFR 63.864(d)	> 20%	NA
#5 Smelt Dissolving Tank/ PM	Fan Load & Scrubbing media flow rate	Continuous parameter monitoring required by 40 CFR 63.864(e)(10) (Tier I permit Condition 5.11)	Fan Load ≥ 55%; and scrubbing media flow rate ≥ 350 gallons/minute 3-hr block averages	NA
#3 Lime Kiln/ PM	Opacity	COMs in accordance with 40 CFR 63.864(d)	> 20%	NA
#4 Lime Kiln/ PM	Opacity	COMs in accordance with 40 CFR 63.864(d)	> 20%	NA
#2 Lime Kiln/ PM	Pressure Drop & Scrubbing media flow rate	Pressure drop monitor and scrubbing media flow rate monitor (consistent with what is required by MACT Subpart MM – 40 CFR 63.864(e)(10))	To be determined	Within 180 days of startup of the #2 Lime Kiln.
Dry Fuel Bin/ PM	Visible Emissions	Visual Observation (Method 22)	Any visible Emissions	NA
Non-condensable Gas Incinerator/ Sulfur Dioxide	Scrubbing media flow & pH	Magnetic monitor for flow rate (calibrated annually); Inline pH meter readings verified monthly and device calibrated annually	Flow Rate = 326 gpm, 3-hr average pH = 9.6, 3-hr average	NA

Monitoring Design Criteria §64.3 & Approved Monitoring *§64.6*

The monitoring design criteria of CAM is summarized as follows

General Criteria

Monitoring Shall:

- Obtain data for one or more indicators. §64.3(a)(1)
- Provide a range of the indicators such that operation within those range(s) provides a reasonable assurance of compliance. §64.3(a)(2)&((3)

Performance Criteria

The monitoring methods shall:

- Provide for obtaining data that are representative of the emissions parameters being monitored. §64.3(b)(1)
- Quality assurance and control to assure continuing validity of the data collected. §64.3(b)(3)

- Specifications for the frequency of conducting the monitoring. For units with after control emissions of 100 tons per year or greater frequency shall not be less than every 15 minutes. For other units frequency shall not be less than once per 24-hours. §64.3(b)(4)
- Continuous opacity monitoring (COMS) that is already required by MACT (40 CFR 63) or NSPS (40 CFR 60) standard shall be deemed to satisfy the CAM monitoring Design Criteria. Provided that a COMS may be subject to the criteria for establishing an indicator range. §64.3(d)(2)

Approved Monitoring *§64.6*

At a minimum, the permit shall specify the following for the approved monitoring:

(1) The approved monitoring approach that includes all of the following:

- The indicator(s) to be monitored (such as temperature, pressure drop, emissions, or similar parameter);
- (ii) The means or device to be used to measure the indicator(s) (such as temperature measurement device, visual observation, or CEMS); and
- (iii) The monitoring performance requirements established to satisfy §64.3(b) or (d), as applicable.

(2) The means by which the owner or operator will define an exceedance or excursion for purposes of responding to and reporting exceedances or excursions under §§64.7 and 64.8 of this part. The permit shall specify the level at which an excursion or exceedance will be deemed to occur, including the appropriate averaging period associated with such exceedance or excursion. For defining an excursion from an indicator range or designated condition, the permit may either include the specific value(s) or condition(s) at which an excursion shall occur, or the specific procedures that will be used to establish that value or condition. If the latter, the permit shall specify appropriate notice procedures for the owner or operator to notify the permitting authority upon any establishment or reestablishment of the value.

Following are discussions on the CAM monitoring requirements for each affected emissions unit. The requirements are included in Tier I permit conditions 19.2 through 19.6.

CAM for #4 Power Boiler

COMS monitoring required by NSPS is the presumptively acceptable in satisfying monitoring design criteria for PM emissions from the #4 Power Boiler per §64.3(d)(2). Through source testing 15% opacity was determined to be the indicator that assures compliance with all applicable CAM particulate standards. Clearwater provided the results of 7 emissions tests. During these tests opacity and particulate matter were measured. Clearwater provided a correlation of the measured opacity to the measured particulate matter emissions. Fifteen percent opacity was determined to be the indicator range for opacity that will assure compliance with all applicable emissions standards. Appendix E of Clearwater's June 19, 2007 Tier I permit renewal application includes these emissions data and correlations.

Clearwater identified a 0.015 gr/dscf @ 12%O_2 particulate matter standard from the PTC issue September 20, 1978 as being the most stringent standard applicable to the No. 4 Power Boiler. Clearwater's proposed opacity indicator range of 15% is based on source test data that shows compliance with the 0.015 gr/dscf @ 12%O_2 particulate matter standard at 15% opacity.

Applicable PM standards to the #4 Power Boiler are:

0.015 gr/dscf corrected to 12% O_2, PTC 9/20/78
120 tons per year, PTC 9/20/78
0.015 gr/dscf corrected to 12% O_2, (for gas), IDAPA 58.01.01.676
0.050 gr/dscf corrected to 12% O_2, (for liquid), IDAPA 58.01.01.676
0.10 lb/MMBtu, NSPS Subpart D (Promulgated before November 1990)

CAM for #4 & #5 Recovery Furnaces, and #3 &#4 Lime Kilns

Clearwater's June 14, 2007 CAM plan for the #4 & #5 Recovery Furnaces, and #3 & #4 Lime Kilns proposed that the opacity indicator threshold for assuring compliance with all particulate matter emissions standards to be equivalent to the 20% opacity corrective action threshold included in the MACT. However no data was provided showing that the opacity threshold of 20% shows a reasonable assurance of compliance with applicable particulate matter standards (nor was this data included in the MACT background information). Therefore DEQ could not accept without condition that the proposed indicator range of 20% opacity provides a reasonable assurance of compliance with the various standards that apply as required by 40 CFR 64. It should be noted that EPA[18] concurred with DEQ's determination that data must be used to establish an indicator range that does assure compliance (§64.3(d)(2)).

In the draft Tier I permit that was made available for public comment DEQ had acted to conditionally approve the CAM plan for #4 Recovery Furnace, #5 Recovery Furnace, #3 Lime Kiln, and #4 Lime Kiln in accordance with 40 CFR 64.6(b). The condition of the approval was that Clearwater must collect test data within 180 days of permit issuance to confirm the selected indicator range provided a reasonable assurance of compliance. Based upon review of that draft permit Clearwater has provided a new CAM plan which was received by DEQ on February 25, 2009. That CAM plan includes data on emissions from the #4 & #5 Recovery Furnaces, and #3 & #4 Lime Kilns which confirms that 20% opacity provides a reasonable assurance of compliance. Based on the information submitted in the new CAM plan for these units DEQ has now approved, as opposed to conditionally approved, the proposed CAM indicator range for these units

Clearwater's #4 & #5 recovery furnaces and #3 & #4 lime kilns are subject to the COMS requirements of the MACT standard (40 CFR 63.Subpart MM). Therefore the COMS monitoring required by that subpart is a presumptively acceptable in satisfying monitoring design criteria for PM per §64.3(d)(2. For these emissions units Clearwater has proposed that the opacity indicator threshold for assuring compliance with all particulate matter emissions standards equivalent to the 20% opacity corrective action threshold included in MACT Subpart MM. Clearwater's February 25, 2009 CAM plan is included in Attachment E to this Statement of Basis and shows that 20% opacity provides a reasonable assurance of compliance for all applicable emission standards.

CAM for #4 & #5 Smelt Dissolving Tanks

Clearwater has proposed scrubbing media flow rate and pressure drop across the scrubber to be the indicators of compliance for particulate matter emissions from the #4 Smelt Dissolving Tank. These indicators are required to be monitored by MACT (40 CFR 63.Subpart MM) and are therefore presumptively acceptable monitoring methods per §64.3(d)(2).

[18] Email from Nancy Helm, Manager Federal and Delegated Air Programs, EPA Region X, and Peter Westlin, EPA, August 27, 2008 (TRIM record number 2008AAG2378)

Clearwater has proposed scrubbing media flow rate to the scrubber and the percent of load to the scrubber fan motor as indicators of compliance for the #5 Smelt Dissolving Tank. Monitoring of scrubbing media flow rate is required by the MACT, and the percent of fan load is an EPA approved[19] alternative to pressure drop monitoring requirement of the MACT. These indicators are approved by EPA, to be monitored for MACT (40 CFR 63.Subpart MM) purposes, and are therefore presumptively acceptable in satisfying the monitoring design criteria per §64.3(d)(2).

Indicator ranges for scrubbing media flow rate and pressure drop were selected by Clearwater based on emissions testing of each dissolving tank which assured compliance with all applicable emission standards. The CAM plan is detailed in Appendix E of Clearwater's Tier I permit renewal application received by DEQ on June 14, 2007. This plan includes a listing of all standards applicable to the #4 & #5 Smelt Dissolving tanks data which shows that selected indicator ranges provide a reasonable assurance of compliance.

The approved indicators, and indicator ranges for the #4 and #5 smelt tanks are summarized in Table 7.10.

Table 7.10 #4 & #5 Smelt Dissolving Tanks Compliance Indicators and Indicator Ranges

Emission Unit	Compliance Indicator	Indicator of Excursion
#4 Smelt Tank	Scrubbing media flow rate (MACT Required)	< 43[a] gpm, 3-hr block average
	Pressure drop (MACT Required)	< 17[a] inches water gage
#5 Smelt Tank	Scrubbing media flow rate (MACT Required)	<350[b] gpm, 3-hr block average
	Percent of load to fan motor	Fan load < 55%[c]

a. DEQ approved source test April 4, 2005
b. DEQ approved source test May 16, 2005
c. April 13, 2007 letter from Nancy Helm of EPA to Steven Waldher, Clearwater (Formerly Potlatch)

CAM for the #2 Lime Kiln

The #2 lime kiln is not currently operating and has not operated since the MACT Subpart MM compliance date of March 13, 2004. Clearwater proposed in their June 14, 2007compliance assurance monitoring (CAM) plan that pressure drop and scrubbing media flow rate consistent with what is required by MACT Subpart MM as presumptively acceptable monitoring method. Clearwater had shown that MACT, Subpart MM, PM standard of 0.064 gr/dscf @ 10% O2 is the most stringent applicable PM emission standard. Therefore it was stated that the operating ranges required to be established to assure compliance with Subpart MM will also assure compliance with all standards.

However, since issuance of the draft permit which included Subpart MM as being applicable to the #2 Lime Kiln Clearwater has clarified that the #2 Lime Kiln is actually not applicable to Subpart MM because it processes lime rock instead of lime mud from the Kraft paper making process. Even though this clarification was provided Clearwater has not updated their June 14, 2007 CAM plan. Therefore Clearwater's monitoring proposal remains that they will monitor pressure drop and scrubbing media flow rate using the procedures and methods specified by MACT Subpart MM (40 CFR 63.864(e)(10)) even though that standard is not applicable to the #2 Lime Kiln. Monitoring pressure drop and scrubbing media according to the procedures specified in MACT Subpart MM is a presumptively acceptable monitoring approach and DEQ approves that proposed monitoring method for CAM purposes even though MACT Subpart MM is not applicable.

[19] April 13, 2007 letter from Nancy Helm of EPA to Steven Waldher, Potlatch

Since Subpart MM is not applicable the most stringent applicable PM standard is actually the 0.12 gr/dscf PM @ 10% O_2 from PTC No. 069-000, issued February 27, 2003.

Since the #2 Lime Kiln is not operating, consistent with CAM requirements for Operating of Approved Monitoring (§64.7), and Clearwater's request, a schedule is specified in the permit by which the permittee must be in compliance with 40 CFR 64 pursuant to §64.6(e). An enforceable schedule is acceptable (§64.6(d)) provided the schedule is consistent with requirements of §64.6(e). In order for the permit to be consistent with §64.6(e) it is necessary to include the substantive requirements of that section of the regulation. Therefore, consistent with §64.6(e), the permit requires that proposed monitoring, including indicator ranges for pressure drop and scrubbing media flow rate, must be submitted no later than 180 days of startup of the #2 lime kiln. It also specifies that if the permittee does not submit the information required within 180 days of startup of the #2 Lime Kiln or if DEQ disapproves the monitoring submitted, the permittee shall be deemed not in compliance with 40 CFR 64, unless the permittee successfully challenges the disapproval.

In summary, the permit has been written to allow developing the CAM indicator ranges for scrubbing media flow rate and pressure drop within 180 days of startup of the No. 2 Lime Kiln. As proposed by Clearwater in their CAM plan, the permit also requires pressure drop and scrubbing media flow rate monitoring using the methods prescribed by MACT Subpart MM (40 CFR 63.864(e)(10)) in order to satisfy the CAM monitoring requirements even though the MACT is not applicable to the #2 Lime Kiln. This proposed monitoring methodology is presumptively acceptable and is include in the Tier I permit.

CAM for the Lime Handling Baghouse

Since issuance of the draft Tier I permit for public comment Clearwater has submitted a permit to construct application to amended permit requirements for the Lime Handling System. On April 13, 2009 a modified permit to construct was issued to Clearwater. The emission rate limit for particulate matter from the lime handling system baghouse stack was determined to be unnecessary[20]. Since the particulate matter standard no longer exists CAM is not applicable. Therefore the Lime Handling System is no longer included in Section 19 of the Tier I permit.

CAM for the Non-Condensable Incinerator

CAM has been established for the non-condensable gas incinerator through previous permitting. The permit that established the CAM requirements is Permit to Construct No. P-06209 that was issued May 25, 2007. CAM applies for sulfur dioxide emissions which are controlled by a packed bed scrubber. The indicators are scrubbing media flow rate and scrubbing media pH. The values of the indicator ranges were established during a source test conducted on September 25, 2007 and approved by DEQ in a letter that was issued to Clearwater on March 3, 2008. The scrubbing media flow rate has been established to be 326 gallons per minute 3-hr average, and the pH has been established at 9.6 which is also a 3-hr average. In approving the indicator range it had not been articulated whether the 3-hour average values were rolling or block average. The Tier I permit clarifies that they are block averages. These previously established CAM requirements are included in the renewed Tier I permit. Scrubbing media flow and pH are required to be continuously monitored and data is required to be recorded once each hour.

Operation of Approved Monitoring §64.7

The generally applicable requirements for approved monitoring required by §64.7 have been included in the permit (Sections 19.7-19.11). These requirements include:

[20] April 13, 2009 Statement of Basis, PTC No. 2009.0020

- *§64.7(a) Commencement of Operation* – The permittee must conduct the approved monitoring upon permit issuance (unless other time is approved).
- *§64.7(b) Proper Maintenance* – The permittee must properly maintain monitoring equipment, including maintaining parts to repair monitoring equipment.
- *§64.7(c) Continued operation* - The permittee must conduct all monitoring in continuous operation at all times the emission unit is in operation. Exception is provided for malfunctions, repairs, calibration, etc.
- *§64.7(d)Response to excursions or exceedances* - 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.
- *§64.7(e) Documentation of need for improved monitoring* - After approval of monitoring under this part, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 permit.

Quality Improvement Plan §64.8

The ability for the permitting authority to reopen the permit to require the development of a quality improvement plan has been included in the permit at Section 19.10. An accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, may be cause for requiring the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria.

Reporting and Record Keeping §64.9

The reporting and record keeping requirements are included in Section 19.11 and by General Provision 24 and 25. Reports are required semiannually; if deviations from permit conditions occurred during the reporting period they shall be included in the report.

Recordkeeping requirements are also included in Facility Wide Permit Condition 1.11.

8. PERMIT CONDITIONS

This section describes only the changes made to the permit as a result of this permitting action. Permit Condition of the December 17, 2002 Tier I permit are identified as "Existing Permit Conditions", any change to the existing permit are described in detail in the following sections.

8.1 Facility-wide Conditions

The facility wide permit conditions have been updated to DEQ's most current requirements. There is only one substantive change from the previous permits facility wide permit conditions. That change is in Facility Wide Permit Condition 1.8, which are the monitoring requirements to assure compliance with visible emissions limits. The change is to clarify that if a continuous opacity monitor (COM) is being used to assure compliance with visible emissions limits the monitoring requirements of Facility Wide Permit Condition 1.8 do not apply because the COM is sufficient to assure compliance.

Permit Condition 1.1 – Fugitive Dust

All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651.

[IDAPA 58.01.01.650-651, 3/30/07]

Monitoring, Recordkeeping, and Reporting Requirements (MRRR) (Permit Conditions 1.2 through 1.4)

- Monitor and maintain records of the frequency and the methods used to control fugitive dust emissions;
- Maintain records of all fugitive dust complaints received and the corrective action taken in response to the complaint;
- Conduct a monthly facility-wide inspection of all sources of fugitive emissions. If any of the sources of fugitive dust are not being reasonably controlled, corrective action is required.
- Records of each fugitive dust inspection and corrective action taken are to be maintained at the permitted facility.

[IDAPA 58.01.01.322.06, 07, 08, 4/5/2000]

Permit Condition 1.5 – Odors

The permittee shall not allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution.

[IDAPA 58.01.01.775-776 (State-only), 5/1/94]

MRRR (Permit Condition 1.6)

- Maintain records of all odor complaints received and the corrective action taken in response to the complaint;
- Take appropriate corrective action if the complaint has merit, and log the date and corrective action taken.

[IDAPA 58.01.01.322.06, 07 (State-only), 5/1/94]

Permit Condition 1.7 – Visible Emissions

The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, nitrogen oxides, and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section.

[IDAPA 58.01.01.625, 4/5/00]

MRRR (Permit Condition 1.8)

- Conduct a quarterly facility-wide inspection, unless more frequently required by other permit conditions, during daylight hours and under normal operating conditions for the purposes of observing points of visible emissions from all emissions units subject to the visible emissions standards unless specified otherwise elsewhere in the permit.
- Sources that are monitored using a continuous opacity monitoring system (COMS) are not required to comply with this permit condition.

- Each inspection shall be conducted as follows:
  - Initial see/no see evaluation for each potential source of visible emissions. If any visible emissions are present from any point of emission, the permittee shall either:
  - Take appropriate corrective action as expeditiously as practicable to eliminate the visible emissions, and conduct another see/no see evaluation within 24 hours. If the visible emissions are not eliminated, the permittee shall comply with b).

OR

  - Perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. If the measured opacity is greater than 20% for the time period specified in Section 625, the permittee shall take corrective action and report the exceedance in its annual compliance certification and in accordance with IDAPA 58.01.01.130-136.

  - Records of each visible emission inspection and each opacity test and corrective action taken are to be maintained at the permitted facility.

[IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00]

The draft permit that was made available for public comment required monthly visible emissions observations instead of quarterly observations. Clearwater stated that in six years of monthly visible emissions observations emissions were only observed from the smelt tanks and salt-cake systems. Based on this comment DEQ has changed visible emissions observations from monthly to quarterly. Compliance is assured for the salt-cake system through the CAM requirements included in Section 19 of the Tier I permit.

Permit Condition 1.9 – Excess Emissions

The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions. The provisions of IDAPA 58.01.01.130-136 shall govern in the event of conflicts between Permit Condition 1.9 and the regulations of IDAPA 58.01.01.130-136.

The permittee may keep a log book of excess emission records for a period of five years or may elect to keep electronic files that serve the same purpose to satisfy the recordkeeping requirements of IDAPA 58.01.01.322.07.c.

MRRR

Monitoring, recordkeeping and reporting requirements for excess emissions are provided in Sections 131 through 136.

Permit Condition 1.10 – Performance Testing

If performance testing is required, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test or shorter time period as provided in a permit, order, consent decree, or by DEQ approval. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests such testing not be performed on weekends or state holidays.

All testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, prior to conducting any performance test, the

permittee is encouraged to submit in writing to DEQ, at least 30 days in advance, the following for approval:

- The type of method to be used
- Any extenuating or unusual circumstances regarding the proposed test
- The proposed schedule for conducting and reporting the test

Unless a longer time is approved by DEQ, the permittee shall submit a compliance test report for the respective test to DEQ within 30 days following the date in which a compliance test required by this permit is concluded. The compliance test report shall include all process operating data collected during the test period as well as the test results, raw test data, and associated documentation, including any approved test protocol.

The proposed test date(s), test date rescheduling notice(s), compliance test report, and all other correspondence shall be sent to the following address:

Air Quality Permit Compliance
Department of Environmental Quality
Lewiston Regional Office
1118 F St.
Lewiston, ID 83501
Phone: (208) 799-4370 Fax: (208) 799-3451

Except for the optional approval of a longer time period for test report submittal provided above, should there be a conflict between this permit condition and IDAPA 58.01.01.157, IDAPA 58.01.01.157 shall govern.

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94]

(Note that IDAPA 58.01.01.157 requires submitting test reports within 30 days unless the permit specified otherwise. This Tier I permit specifies that DEQ may grant an extension to the 30 day test report submittal deadline).

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Clearwater Paper Corporation must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

However, if performance testing is required, it is to be conducted in accordance with IDAPA 58.01.01.157, including any and all monitoring, recordkeeping and reporting requirements. Emissions-unit specific MRRR will be listed within the permit condition requiring performance testing permit condition.

Permit Condition 1.11 – Monitoring and Recordkeeping

The permittee shall maintain sufficient records to assure compliance with all of the terms and conditions of this operating permit. Records of monitoring information shall include, but not be limited to, the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application.

Supporting information includes, but is not limited to, all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.322.07, 5/1/94]

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Clearwater Paper Corporation must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 1.12 – Reports and Certifications

All periodic reports and certifications required by this permit shall be submitted to DEQ within 30 days of the end of each specified reporting period. Excess emissions reports and notifications shall be submitted in accordance with IDAPA 58.01.01.130-136. Reports, certifications, and notifications shall be submitted to:

Air Quality Permit Compliance
Department of Environmental Quality
Lewiston Regional Office
1118 F St.
Lewiston, ID 83501
Phone: (208) 799-4370 Fax: (208) 799-3451

The periodic compliance certification required by General Provision 21 shall also be submitted within 30 days of the end of the specified reporting period to:

EPA Region 10
Air Operating Permits, OAQ-107
1200 Sixth Ave.
Seattle, WA 98101

[IDAPA 58.01.01.322.08, 11, 5/1/94]

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Clearwater Paper Corporation must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 1.13 – Fuel Burning Equipment PM Standards

The permittee shall not discharge PM to the atmosphere from any fuel-burning equipment in excess of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume for gas, 0.050 gr/dscf of effluent gas corrected to 3% oxygen by volume for liquid, 0.050 gr/dscf of effluent gas corrected to 8% oxygen by volume for coal, and 0.080 gr/dscf of effluent gas corrected to 8% oxygen by volume for wood products.

[IDAPA 58.01.01.676-677, 5/1/94]

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Clearwater Paper Corporation must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 1.14 – Distillate Fuel Oil Sulfur Content Limits

The permittee shall not sell, distribute, use, or make available for use any distillate fuel oil containing more than the following percentages of sulfur:

- ASTM Grade 1 fuel oil - 0.3% by weight.
- ASTM Grade 2 fuel oil - 0.5% by weight.

[IDAPA 58.01.01.728, 5/1/94]

Permit Condition 1.14.1 – Residual Fuel Oil Sulfur Content

The permittee shall use or make available for use, any residual fuel oil containing more than one and three-fourths percent (1.75%) sulfur by weight.

[IDAPA 58.01.01.727, 5/1/94]

Permit Condition 1.14.2

The permittee shall not sell, distribute, use, or make available for use, any coal containing greater than 1% sulfur by weight.

[IDAPA 58.01.01.729, 5/1/94]

MRRR – (Permit Condition 1.14.2)

The permittee shall maintain documentation of supplier verification of fuel oil sulfur content on an as-received basis.

[IDAPA 58.01.01.322.06, 5/1/94]

Permit Condition 1.15 – Open Burning

The permittee shall comply with the *Rules for Control of Open Burning,* IDAPA 58.01.01.600-616.

[IDAPA 58.01.01.600-616, 3/30/07]

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Clearwater Paper Corporation must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 1.16 – Renovation/Demolition

The permittee shall comply with all applicable portions of 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

[40 CFR 61, Subpart M]

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Clearwater Paper Corporation must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 1.17 – Regulated Substances for Accidental Release Prevention

(a)
An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, shall comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR 68 no later than the latest of the following dates:

- Three years after the date on which a regulated substance present above a threshold quantity is first listed under 40 CFR 68.130.
- The date on which a regulated substance is first present above a threshold quantity in a process.

[40 CFR 68.10 (a)]

(b)
This facility is subject to 40 CFR Part 68 and shall certify compliance with all requirements of 40 CFR Part 68, including the registration and submission of the RMP, as part of the annual compliance certification required by 40 CFR 70.6(c)(5).

[40 CFR 68.215(a)(2); IDAPA 58.01.01.322.11, 5/1/94; 40 CFR 68.215(a)(ii)]

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Clearwater Paper Corporation must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 1.18 – Recycling and Emissions Reductions

The permittee shall comply with applicable standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, Recycling and Emissions Reduction.

[40 CFR 82, Subpart F]

MRRR

No monitoring is required for this facility-wide condition. As with all permit conditions, Clearwater Paper Corporation must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

8.2 Package Boilers and Power Boilers No. 1, 2, and 3 – Tier I Permit Section 2.0

The Package and Power Boilers provide steam to the paper making process.

Following is a list of underlying permits which have requirements that are applicable to the package boilers and power boilers No. 1, 2, and 3:

- Permit to Construct, No. 069-00001, 8/31/01
- Permit to Construct, No P2008.0009, 4/24/08

The existing Tier I permit conditions for the Package Boilers and Power Boiler No. 1, 2, and 3 remain unchanged with the exceptions detailed below and that they have been renumbered.

Existing Tier I Permit Condition 2.2 included the IDAPA.01.01.625 visible emissions standard, this permit condition is redundant with Facility Wide Permit Condition 1.7 and has been removed from the renewed Tier I permit.

Existing Tier I Permit Condition 2.4 included the requirement for determining the applicability of 40 CFR 63 Subpart DDDDD to the replacement boilers. The Courts have rescinded this subpart; therefore this permit condition has been removed from the permit.

Existing Tier I Permit Condition 2.12 required quarterly one-minute observations of opacity from the boilers. Facility-Wide Permit Condition 1.8 is more stringent because it requires monthly observations of visible emissions. Since 2.12 did not originate from an underlying requirement and because Facility-Wide Permit Condition 1.8 is more stringent in assuring compliance with visible emissions Permit Condition 2.12 has been deleted from the permit.

Existing Tier I Permit Condition 2.13 is redundant to Facility Wide Permit Condition 1.14.2 which requires recordkeeping for verification of fuel sulfur content. Therefore, Permit Condition 2.13 has been removed from the permit.

Compliance with Applicable Requirements

Each applicable emission standard and operating requirement is listed below. Following each listed emission standard and operating requirement is the associated monitoring, recordkeeping, and/or reporting, or other means, of assuring compliance is described.

Permit Condition 2.1

This permit condition contains particulate matter grain loading standards for combustion sources. It is commonly known that using AP-42 emissions factors and combustion flow rate constants, compliance is demonstrated with the particulate matter grain loading emissions standards when natural gas and distillate fuel oil is combusted in boilers without controls on emissions. Therefore no further compliance demonstration (monitoring, recordkeeping or reporting) is needed in the permit. Table 8.1 gives the estimated PM grain loading emissions; the data in Table 8.1 shows that estimated emissions are well below the applicable emissions standards.

Table 8.1 Estimated Grain Loading Compared to Emissions Standards

Fuel Type	Grain Loading (AP-42 & Combustion F factors)	IDAPA 58.01.01.677 Standards
Natural Gas	0.001 gr/dscf @ 3% O_2	0.015 gr/dscf @ 3% O_2
#2 Fuel Oil	0.009 gr/dscf @ 3% O_2	0.050 gr/dscf @ 3% O_2

Permit Condition 2.2

This applicable requirement mandates the facility to comply with any applicable NSPS standard that may apply to the replacement boilers when they are installed. Applicability must be determined and submitted to DEQ in accordance with Permit Condition 2.12. No replacement boiler has been installed at the time of permit renewal.

Permit Condition 2.3

This applicable requirement limits the steam production from the boilers. This permit condition originates from an underlying permit to construct. Permit Condition 2.8 and 2.9 requires monitoring and recordkeeping to assure compliance with the steam production limit.

Permit Condition 2.4

This applicable requirement is directly from the PSD rules which state that if a "replacement" project is used to avoid PSD, and then the existing unit that has been replaced is proposed to be brought back into operation then it shall be considered new emissions units and shall be subject to permitting requirements. Permit Condition 2.12 requires reporting on all boiler replacement projects within 60 days of the change.

Permit Condition 2.5

This applicable requirement allows multiple replacement projects provided that the project does not result in a significant emission increase. Permit Condition 2.10 requires source testing of all replacement units, Permit Condition 2.11 requires monitoring and recordkeeping of all project emissions to assure that the project does not result in a significant emission increase, and Permit Condition 2.12 requires reporting on all boiler replacement projects within 60 days of the change.

8.3 Power Boiler No. 4 – Tier I Permit Section 3.0

Power Boiler No. 4 provides steam to the paper making process. Following is a list of underlying permits which have requirements that are applicable to the No. 4 Power Boiler[21]:

- EPA PSD approval, PSD-X80-18, 9/30/80
- PTC, 9/20/78

The September 20, 1978 PTC includes requirements for NOx, PM, and SO_2. The NOx requirements in this PTC have been superseded by the 1980 EPA PSD permit. The PM and SO_2 requirements remain applicable requirements. Table 8.2 provides a summary of the status of the requirements of the 1978 PTC.

Table 8.2 Summary of PTC issued 9/20/78 for No. 4 Power Boiler.

Permit Requirement	Status
Additional design information shall be submitted for multiclone and ESP as soon as manufacturer is selected.	Obsolete permit conditions. Manufacturer was selected nearly 30 years ago.
Source shall conduct stack tests within 60 days of achieving maximum production, but not later than 180 days after startup.	Obsolete permit conditions. Startup was nearly 30 years ago.
SOx emission shall be monitored by regularly conducted analysis	Effective permit condition. The Tier I permit requires Clearwater to operate a SO_2 CEM
The source shall install a continuous opacity monitor	Effective permit condition. The Tier I permit requires continuous monitoring of opacity emissions.
Particulate Limits: • 0.015 gdscf @ 12% CO_2 • 120 T/yr • 20% Opacity	Effective permit condition. The Tier I permit includes these emissions limits.
Nitrogen Oxide Limits	Superseded by EPA PSD Permit, PSD-X80-18, 9/30/80
Kidwell Boiler Requirements	Obsolete permit conditions. Kidwell boilers are removed from the facility or are rendered inoperable.

Following are discussions regarding those sections of the Tier I operating permit that have changed. The remaining existing Tier I permit conditions for the Power Boiler are unchanged with the exception that they have been renumbered.

New Permit Condition 3.2

The existing Tier I permit omitted the 0.015 gr/dscf @ 12% oxygen, and 120 T/yr particulate matter standards which originate from the PTC issued September 20, 1978. These standards are included in renewed Tier I Permit Condition 3.2. This emission standard is a LAER emission rate limit. At the time the No. 4 power boiler was permitted the Lewiston area was nonattainment for TSP, at the time the

21 The existing Tier I Permit and the draft permit that was made available for public comment on January 26, 2009 includes requirements from the August 22, 1984 Air Pollution Source Permit No. 1140-0001. This permit expired on August 21, 1989 and is not included in this updated draft permit.

permit was issued the 0.015 gr/dscf PM emission limit was determined to be LAER for the boiler. This permit condition has not been superseded by any subsequent permit issued to Clearwater.

Renewed Permit Condition 3.3

The opacity limit from the September 20, 1978 permit has been omitted from the current permit. The NSPS opacity limit remains unchanged, and the renewed permit now contains the opacity limit from the September 20, 1978 permit.

Renewed Permit Condition 3.5

During the public comment period on the proposed permit Clearwater commented that the averaging period of the BACT emissions limit for NOx in the underlying PSD permit (No. PSD-X80-18, September 30, 1980) does not include an averaging period and requested the change averaging period of 3 hours which was included in the draft Tier I permit to a monthly average emission limit.

The NOx emission limitation in the PSD permit is BACT emission rate limit. By definition, BACT can not be less stringent than any applicable NSPS standard (40 CFR 52.21(b)(12). In addition to the NOx BACT limit from the PSD permit for the No. 4 Power Boiler is also subject to a NOx emission standard from NSPS Subpart D. In accordance with 40 CFR 60.45(g)(3)(i) the NOx standard is for "any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards[22]." Therefore the NSPS standard is a rolling 3-hour average, and it follows that the BACT limit must also a rolling 3-hour average. Increasing the averaging period of the standard to 30 days is less stringent that the applicable NSPS standard and would make the BACT emissions standard less stringent than the NSPS the averaging period. In short, the BACT limits must be 3- hour rolling average limits so that they are not less stringent than the applicable NSPS. The draft permit that was presented for public comment has been updated to specify that the 3 hour average limit is a 3 hour rolling average. The BACT limits in the Tier I permit are quotes of the underlying emissions limits which are:

Wood waste/oil – 0.3 lbs NOx/10^6 Btu
Wood waste/gas – 0.2 lbs NOx/10^6 Btu

Existing Permit Condition 3.6

Existing Tier I Permit Condition 3.6 included requirements from State Air Pollution Source Permit #1140-00001, issued August 22, 1984 which expired August 21, 1989. Since the permit condition is expired it has been removed from the Tier I permit.

Renewed Permit Condition 3.6

The averaging period of the NSPS NOx limit has been updated to clarify that the 3 hour average emissions limits are rolling average standards. See also the discussion on renewed Permit Condition 3.5.

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22 See also EPA Applicability determinations at: http://cfpub.epa.gov/adi/index.cfm?CFID=2561623&CFTOKEN=44242832&jsessionid=2030291ad27ded917b064f49551e17234c67TR4a3020302e302830&requesttimeout=180; & http://cfpub.epa.gov/adi/index.cfm?CFID=2561623&CFTOKEN=44242832&jsessionid=2830259132465fb35d6a56f1075e5d3c6279TR2830&requesttimeout=180

New Permit Condition 3.7

The existing Tier I permit has omitted the 100 ton per year sulfur dioxide emission limit from the September 20, 1978 PTC issued by DEQ. Clearwater also did not include this as an applicable requirement in their application to renew the Tier I permit.

Existing Permit Condition 3.7/ New Permit Conditions 3.10 & 3.11

Existing Tier I Permit Condition 3.7 combined NOx CEM and COM requirements that originate from NSPS Subpart D and CEM requirements from PSD permit No. X80-18 which was issued September 30, 1980. This permit condition was carried over to the daft Tier I permit that was made available for public comment without change. Based on comments received on the draft permit these two requirements have now been included in their own respective permit conditions in the renewed Tier I.

The NOx CEM requirements of PSD permit No. X80-18 (9/30/80) are included in new Tier I Permit Condition 3.10. They are quotes of the requirements from this underlying permit.

Regarding the CEM requirements of the NSPS, Clearwater has not demonstrated that a NOx CEM is not required per 40 CFR 60.45(a) and (b). Permit Condition 3.11 has been added to the Tier I permit and now includes the NSPS Subpart D NOx CEM monitoring requirement. According to the CFR a NOx CEM and associated oxygen or carbon monoxide monitoring is not required if it can be demonstrated that the initial performance test was less than 70% of the applicable standards of 40 CFR 60.44. Clearwater had provided test data during the development of the Tier I permit which they contend shows that the initial test was less than 70% of the applicable standards. Based on DEQ's review[23] of that data it can not be concluded that the test data was from the initial performance test and it has not been demonstrated that the methods used during the test meet the requirements of the CFR. In summary the CFR requirement accommodates a scenario where a NOx CEM is not required if it can be demonstrated that the initial test was less than 70% of the standard; if it can not be demonstrated that the initial test was less than 70% of the standard then a CEM is required. The Tier I Permit Condition 3.11 now includes that a NOx CEM is required by 40 CFR Subpart D because Clearwater has not demonstrated that a NOx CEM is not required by 40 CFR Subpart D. Tier I Permit Condition 3.11 also includes the 40 CFR Subpart D COMs monitoring requirement.

Existing Tier I Permit Condition 3.8

Existing Tier I Permit Condition 3.8 has been removed from the renewed permit. It required periodic particulate matter emissions testing with the frequency of testing dependent on how close the initial source test was to the applicable standard. Particulate matter emissions from the #4 power boiler are now subject to continuous compliance assurance in accordance with CAM provisions. Renewed Permit Condition 3.8 now requires a performance test once each five years, which in combination with CAM requirements provides a reasonable assurance of compliance with particulate matter standards.

Existing Tier I Permit Condition 3.9

Existing Tier I Permit Condition 3.9 has been removed from the permit. The authority for this permit condition was cited as IDAPA 58.01.322.06, a "gap filling" monitoring provision. This condition required the development of an O& M manual for the air pollution control device. Newly applicable compliance assurance monitoring requirements (CAM-Permit Section 19) includes monitoring and

[23] Email from Tom Anderson, IDEQ to Dan Pitman dated February 27, 2009 (TRIM record number 2009AAG3974)

corrective action requirements if indicators of emissions exceed established thresholds. The CAM requirements obsolete the need for an O&M manual.

New Permit Condition 3.9

New Permit Condition 3.9 is a "gap filling" monitoring provision authorized by IDAPA 58.01.322.06, it requires the permittee to calculate the particulate matter emission rate for the previous 12- months to assure compliance with the ton per year PM emissions rate limit in renewed Tier I Permit Condition 3.2. Particulate matter emissions rates shall be calculated using the results of the most recent particulate matter source test, the fuel usage rate during the test, and the fuel usage rate during most recent 12-month period.

Existing Permit Condition 3.10 & 3.11

Existing Tier I Permit Condition 3.10 and 3.11 were gap filling" monitoring provisions, authorized by IDAPA 58.01.322.06, to assure compliance with sulfur restrictions and sulfur dioxide emission standards. New Tier I Permit Condition 3.12 now requires a CEM to assure compliance with standards. Therefore, these existing Tier I monitoring requirements are not included in the renewed Tier I Permit.

New Permit Condition 3.12

This permit condition includes Clearwater's proposed method of assuring compliance with the 100 ton per year sulfur dioxide emission through the use a CEM. It requires operation of the CEM system to begin within 180 days of permit issuance. The 180 day period allows Clearwater to install and "shake-down" of the new system.

New Permit Condition 3.13 & 3.16

New Permit Condition 3.13 specifies the NSPS requirements for converting NOx emissions measured by the CEM to those units of the NSPS standard which is lb/MMBtu; Permit Condition 3.16 references the applicable record keeping and reporting requirements for the NSPS.

New Permit Condition 3.15

This permit condition requires monitoring the type of fuel combusted and the total Btu's of each fuel combusted. Monitoring this is required so that the necessary information is available to comply with Permit Condition 3.12.

Existing Permit Condition 3.14/New Permit Condition 3.17

Existing Permit Condition 3.14 has been updated to more accurately quote the reporting requirements required by the underlying EPA PSD permit and is included in new Permit Condition 3.17

SUMMARY OF SECTION 3 OF THE RENEWED TIER I PERMIT

Table 8.3 lists each emissions standard and operating requirement for the No. 4 Power Boiler. The table also references and describes the monitoring requirements that are included in the renewed Tier I permit to assure compliance with each standard or operating requirement.

Table 8.3 Applicable Requirements/Compliance Assurance Summary

Permit Condition	Requirement	Requirement Reference	Monitoring and Recordkeeping Requirements	Summary of Compliance Assurance Method
3.1	PM - 0.10 lb/MMBtu	40 CFR 60.42(a)(1)	3.8	CAM requirements included in Section 19 of the permit. Source test once each 5 years.
3.2	PM - 0.015 gr/dscf & 120 Tyr	Permit #1140-0001, 8/22/84	3.8, 3.9	CAM requirements included in Section 19 of the permit. Source test once each 5 years.
3.3	Opacity – 20%	40 CFR 60.42(a)(2) & PTC 9/20/78	3.11	Continuous opacity monitor
3.4	SO_2 – 0.80 lb/MMBtu	40 CFR 60.43(a)(1)	3.12, 3.15	SO_2 CEM
3.5	NO_x - 0.2 or 0.3 lb/MMBtu depending on fuel type	PSD permit, (9/30/84)	3.10	NOx CEM
3.6	NO_x – 0.20 or 0.30 lb/MMBtu depending on fuel type	40 CFR 60.44(a)(1)	3.10	NOx CEM
3.7	SO_2	PTC – 9//20/78	3.12, 3.15	SO_2 CEM

As previously discussed, the existing Tier I Permit, and the draft permit that was made available for public comment on January 26, 2009, includes requirements from the August 22, 1984 Air Pollution Source Permit No. 1140-0001. This permit expired on August 21, 1989 and is not included in this updated draft permit. The renewed Tier I permit now includes permit conditions cited to originate from the PTC issued September 20, 1978, the Air Pollution Source Permit issued on July 5, 1979, the Rules, the Code of Federal Regulations, or the PSD permit issued September 30, 1980 instead of the August 22, 1984 permit.

The August 22, 1984 permit included the following condition which has expired and can not be cited to another existing applicable requirement:

> "The boiler fuel may include such materials as wastepaper, cafeteria waste, straw, tire chips (shredded motor vehicle tires), clarifier sludge, and plastic drool (waste from extruding machines) in any combination of the above up to 20% of the total fuel rate on a dry basis. However, the total sulfur in the fuel mixture shall not exceed 0.5% dry basis."

Should Clearwater propose in the future to combust any fuel other than natural gas, fuel oil, or wood[24] then a regulatory analysis must be conducted in order to determine if a modification is occurring. If a modification is occurring, as defined by the applicable rules, then a regulatory analysis must be conducted to determine if that modification requires that a permit be issued prior to burning of that fuel.

8.4 Temporary Boilers – Tier I Permit Section 4.0

Clearwater may operate 2 natural gas fired boilers for up to 30 days per any consecutive 12-month period, and any time that one or more of the permanent boilers are shut down. The boilers produce steam for the paper making process.

[24] Potlatch Corporation, Application for a New or Modified Industrial Air Emission Permit, February 7, 1978.

Permit to Construct, PTC No. 069-00001, 11/6/98 is the only underlying permit that has applicable requirements for the two temporary boilers. All applicable requirements are included in the existing Tier I permit. The existing Tier I permit conditions for the temporary boilers have not been changed except to delete those permit conditions that are duplicates of the Facility-Wide permit conditions as noted below.

EXISTING TIER I PERMIT CONDITIONS THAT ARE REDUNDANT

The existing Tier I permit included permit conditions that are redundant with other permit conditions. These permit conditions have been removed from Section 4 of the permit. The permit conditions that have been removed are listed below along with an explanation of why they are redundant.

Existing Tier I Permit Condition 4.1

Existing Tier I Permit Condition 4.1 limits PM emissions to 0.015 gr/dscf @ 3% O_2 in accordance with 0.015 IDAPA 58.01.01.676 and has been deleted from the permit because it is a duplicate of Facility-Wide Tier I Permit Condition 1.13. Compliance is assured because the temporary boiler fuel is limited to natural gas; combustion of natural gas inherently complies with the particulate matter grain loading standard (see Table 8.1 of this statement of basis).

Existing Tier I Permit Condition 4.2

Existing Tier I Permit Condition 4.2 limits opacity to 20% in accordance with IDAPA 58.01.01.625. This permit condition is a duplicate of Facility-Wide Permit Condition 1.7 and has been removed from Section 4 of the permit.

The remaining existing Tier I permit requirements are unchanged but may have been renumbered in the renewed Tier I permit.

SUMMARY OF SECTION 4 OF THE RENEWED TIER I PERMIT

Table 8.4 lists each emissions standard and operating requirement for the temporary boilers. The table also references and/or describes the monitoring requirements that are included in the renewed Tier I permit to assure compliance with each standard or operating requirement.

Table 8.4 Applicable Requirements/Compliance Assurance Summary

Permit Conditi	Requirement	Requirement Reference	Monitoring and Recordkeeping Requirements	Summary of Compliance Assurance Method
1.13	PM - 0.015 gr/dscf	IDAPA 58.01.01.676	NA	Tier I Permit Condition 4.1 limits the fuel type to natural gas exclusively. Combustion of natural gas inherently complies with the PM grain loading standard.
1.7	Opacity – 20%	40 CFR 60.42(a)(2)	1.8, 1.11	Inspect quarterly and record results of inspection
4.1	Combust Exclusively natural Gas	PTC No. 069-00001, 11/6/98	4.4	The permittee shall record the amounts of fuel combusted each day.
4.2	No more than 2 temporary boilers shall be used, and each shall be less than 100MMBtu/hr	PTC No. 069-00001, 11/6/98	4.5	For each temporary boiler, the permittee shall monitor and record the hours of operation, date of operation, and the operational status of all permanent boilers.

4.3	Boilers may be operated for unlimited hours, anytime one or more of the permanent boilers are shut down. The temporary boilers may also be operated concurrently with all of the permanent boilers for up to 30 days total operating time in any 12-month period.	PTC No. 069-00001, 11/6/98	4.5	For each temporary boiler, the permittee shall monitor and record the hours of operation, date of operation, and the operational status of all permanent boilers.

8.5 Chemical Recovery Combustion Sources *(40 CFR 63 Subpart MM)* - Tier I Permit Section 5.0

The No. 4 and No. 5 recovery furnaces, the No. 4 and No. 5 smelt dissolving tanks, and Lime Kilns No. 3 and No. 4 are emissions units affected by 40 CFR 63 Subpart MM for pulp mill chemical recovery combustion sources as defined by §63.860(b). All emissions units are "existing" emissions units and there are no "new" emissions units with a startup date after March 13, 2001. The No. 2 Lime Kiln is not part of the chemical recovery process because it process lime rock, not lime mud from the Kraft process. The purpose of this section of the permit is to incorporate and summarize the applicable requirements of 40 CFR 63 Subpart MM. There are additional applicable requirements for these sources included in other sections of this permit for the No. 4 and No. 5 recovery furnaces, the No. 4 and No. 5 smelt dissolving tanks, and Lime Kilns No. 3 and No. 4. The sole purpose of Section 5 of the renewed Tier I permit is to include the 40 CFR 63 Subpart MM requirements.

Every permit condition in Section 5 of the renewed Tier I permit is directly from 40 CFR 63 Subpart MM. Permit Condition 5.15 specifies that "Should there be a conflict between 40 CFR 63 and Permit Conditions in Section 5 of this permit then 40 CFR 63 shall govern including any applicable amendments to that regulation." The applicability and requirements of 40 CFR 63 Subpart MM is described in detail in Section 7.3 of this statement of basis.

8.6 No. 4 Recovery Furnace and No. 4 Smelt Dissolving Tank- Permit Section 6.0

The recovery furnace and smelt-dissolving tank are part of the chemical recovery process of the pulping process. Black liquor from the pulp making process is combusted for heat recovery; combustion byproducts are recovered and smelted.

Air Pollution Source Permit, No. 13-1140-0001, issued July 5, 1979 is the only underlying permit that has applicable requirements for the No. 4 Recovery Furnace and No. 4 Smelt Dissolving tank. This permit is included in Idaho's state implementation plan (40 CFR 52.670).

The current Tier I permit, and the draft permit that was made available for public comment on January 26, 2009, included requirements from Air Pollution Source Permit issued August 22, 1984. However, the August 22, 1984 permit expired on August 21, 1989 and requirements from it are not included in the renewed Tier I permit.

Following is a discussion of the requirements for the No. 4 Recovery Furnace and No. 4 Smelt Tank included in Air Pollution Source Permit, No. 13-1140-0001, issued July 5, 1979 and how they are addressed in the Tier I permit. The August 22, 1984 permit conditions which have expired are also

discussed. Existing Tier I permit conditions for the No. 4 Recovery Furnace and No. 4 Smelt Tank are in Section 5 of the existing Tier I permit, they are now included in Section 6 of the renewed Tier I permit

No. 4 Recovery Furnace

Particulate Matter

- *Particulate 0.040 gdscf @ 8% O_2* - This permit condition is included in the Tier I permit.
- *Monthly Particulate Source Test using Idaho procedures* - CAM requirements are included in Section 19 of the permit, CAM provides assurance of compliance through continuous opacity monitoring which has been demonstrated through source testing to provide assurance of compliance through a correlation of opacity and particulate matter grain loading emissions. Additionally, the permittee shall conduct a PM performance test at worst-case normal operating conditions, in accordance with the procedures in 40 CFR 60, Appendix A, Method 5. The test shall be conducted within 12 months of issuance of this permit to demonstrate compliance with Permit Conditions 6.1 and 6.3. If the emissions measured in the initial test are less than 50% of the emission limit, no further testing shall be required during this permit term. If the emissions measured in the initial test are between 50% and 80% of the standard, a second test shall be required in the third year of the permit term. If the initial test exceeds 80% of the standard, an annual test shall be required. During the source test data is required to be collected so that it can be determined whether the opacity indicator range included in CAM continues to assure compliance.

Visible Emissions

- *20% for 3 min in any 60 minute period* – included in Tier I Facility Wide Permit Conditions.
- *Continuous opacity monitoring* – included in Tier I Permit.

TRS

- *15 ppm daily average* – included in Tier I permit.
- *Continuous TRS monitoring* – included in Tier I permit.

Submit a quarterly report of all values exceeding limitations with summary of corrective actions.

Included in Tier I Facility-Wide permit conditions for excesses emissions reporting which is required at least within 15 days of violation and is more frequent than this permit condition.

Submit a copy of the routine monitoring and maintenance procedures, including methods to ascertain which electrodes are in place and maintaining an optimum sparking rate for all sections. Summary report shall be submitted semiannually.

CAM requires continuous monitoring of opacity. If opacity exceeds the range established through source testing which assures compliance then upon detecting the excursion or exceedance, the permittee 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. CAM also requires reporting information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as

applicable, and the corrective actions taken. These CAM requirements have been determined by DEQ to satisfy this underlying permit condition.

No. 4 Smelt Tank

Particulate Matter-

- *0.070 gdscf & 20% opacity* – both permit conditions are included in the Tier I permit.
- *Semiannual source test* – CAM requirements are included in the Tier I permit which establish pressure drop and scrubbing media flow rate values which have been established through source testing to assure compliance with the applicable standards. Pressure drop and scrubbing media flow rate are continuously monitored. Additionally, the permittee shall conduct a PM performance test at worst-case normal operating conditions, in accordance with the procedures in 40 CFR 60, Appendix A, Method 5. The test shall be conducted within 12 months of issuance of this permit to demonstrate compliance with Permit Conditions 6.1 and 6.3. If the emissions measured in the initial test are less than 50% of the emission limit, no further testing shall be required during this permit term. If the emissions measured in the initial test are between 50% and 80% of the standard, a second test shall be required in the third year of the permit term. If the initial test exceeds 80% of the standard, an annual test shall be required. During the source test data is required to be collected so that it can be determined whether the pressure drop and scrubbing media flow rate indicators included in CAM continue to assure compliance.

Following is a discussion of the requirements for the No. 4 Recovery Furnace and No. 4 Smelt Tank included in Air Pollution Source Permit, No. 1140-0001, issued August 22, 1984 which have expired.

With the exceptions described in the following paragraphs, all permit conditions for the No. 4 Smelt Tank and Recovery Furnace in the August 22, 1984 permit are included in the July 5, 1979 Air Pollution Source permit or are included in the Rules for the Control of Air Pollution in Idaho. These permit conditions are included in the Tier I permit though they are not cited to originate from the 1984 permit; they are now cited to originate from either the July 5, 1979 permit or the Rules.

No. 4 Recovery Furnace

Particulate matter shall not exceed 2 lb/ADT. This permit condition expired on August 21, 1989.

Clearwater has shown their CAM plan for the No. 4 Recovery furnace that 2 lb/ADT is equivalent to 0.048 gdscf. The July 5, 1979 permit includes an emission limit of 0.040 gdscf. The 0.040 gdscf standard is more stringent than the 2 lb/ADT permit condition which has expired. Therefore the expiration of the 2 lb/ADT particulate matter permit condition does not result in a relaxation of emission limits.

No. 4 Smelt Tank

Particulate matter shall not exceed 0.4 lb/ADT. This permit condition expired on August 21, 1989.

Clearwater must comply with the 0.07 gdscf particulate matter standard included in the July 5, 1979 permit. Clearwater has shown in their CAM plan for the No. 4 Smelt Tank that 0.07 gdscf is equivalent to 0.167 lb/ADT. The 0.07 gdscf particulate matter standard is more stringent that the 0.4 lb/ADT standard. Therefore the August 21, 1989 expiration of the 0.4 lb/ADT particulate matter permit condition did not result in a relaxation of emission limits.

IDAPA 58.01.01.815 - RULES FOR CONTROL OF KRAFT PULPING MILLS

The Rules for the Control of Air Pollution in Idaho include specific requirements for kraft pulp mills. Following are the requirements that apply to the No. 4 Recovery Furnace and No. 4 Smelt Tank along with a discussion on how they are addressed in this Tier I Permitting action.

RECOVERY FURNACE TRS STANDARDS- §819
The emission of TRS from all recovery furnace stacks shall be further reduced so as not to exceed one-half (1/2) pound of sulfur per equivalent ton of air-dried kraft pulp, or from each recovery furnace stack seventeen and one-half (17 1/2) ppm, expressed as hydrogen sulfide on a dry gas basis, whichever is the more restrictive, or such other limit of TRS that proves to be reasonably attainable utilizing the latest in design of recovery furnace equipment, controls, and procedures. Compliance shall be achieved by not later than July, 1975.

Underlying Air Pollution Source Permit No. 13-1140-0001, 7/5/79 has a TRS emission limit of 15 ppm and 0.5 lb/TADP, maximum daily average and is included in the Tier I permit.

RECOVERY FURNACE PARTICULATE STANDARDS - §821
The emission of particulate matter from all recovery furnace stacks shall not exceed four (4) pounds per ton of equivalent air-dried kraft pulp. Compliance with this requirement shall be achieved by not later than July, 1975.

This limit is included in the Tier I permit.

SMELT TANK STANDARDS - §823
The emission of particulate material from all smelt tanks shall not exceed one-half (1/2) pound per ton of equivalent air-dried kraft pulp. Compliance with this requirement shall be achieved by not later than July, 1972.

This limit is included in the Tier I permit.

MONITORING AND REPORTING - §824
01. Continuous Monitoring Requirements. *Every kraft mill in the State shall install equipment for the continuous monitoring of TRS. (5-1-94)*

- ***a.*** *The monitoring equipment shall be capable of determining compliance with these standards and shall be capable of continuous sampling and recording of the concentrations of TRS contaminants during a time interval not greater than thirty (30) minutes. (5-1-94)*
- ***b.*** *The sources monitored shall include, but are not limited to, the recovery furnace stacks and the lime kiln stacks. (5-1-94)*

Underlying Air Pollution Source Permit No. 13-1140-0001, 7/5/79 requires continuously monitoring TRS emissions from the No. 4 Recovery Furnace. This requirement is in the Tier I permit.

02. Particulate Sampling. *Each mill shall sample the recovery furnace, lime kiln, and smelt tank for particulate emissions on a regularly scheduled basis in accordance with its sampling program as approved by the Department. The appropriate test method under Sections 821 through 823 shall be EPA Method 5 contained in 40 CFR Part 60 or such comparable and equivalent method approved in accordance with Subsection 157.02.d. Test methods and procedures shall also comply with Section 157. (4-5-00)*

This requirement is currently in the Tier I permit. The permit requires periodic testing of particulate matter from the No. 4 Recovery Furnace and No. 4 Smelt Tank. Continuous compliance assurance monitoring is also required in Section 19 of the renewed Tier I permit.

03. Monitoring Program and Time Schedule Submittal.

As required, Clearwater is operating a continuous TRS emission monitor on the No. 4 Recovery Furnace.

04. Quarterly Reporting Requirements. *Unless otherwise authorized by the Department, data shall be reported by each mill at the end of each calendar quarter, as follows: (4-5-00)*

> ***a.*** *Daily average emission of TRS gases expressed in parts per million on a dry gas basis for each source included in the approved monitoring program. (5-1-94)*

These reporting requirements are replaced by the excess emissions reporting requirements of IDAPA 58.01.01.130-136 which are included in Permit Condition 1.9. In short DEQ authorizes submitting excess emissions reports in accordance with IDAPA 58.01.01.130-136 in lieu of the reporting specified by §824.04.a. Reporting excess emissions at least within 15 days of any such event is also determined to be more stringent and in affect supersedes the monthly reporting required by underlying Air Pollution Source Permit No. 1140-0001, 8/22/84.

> ***b.*** *The number of hours each day that the emission of TRS gases from each recovery furnace stack exceeds emission standards and the maximum concentration of TRS measured each day. (5-1-94)*

Per underlying Air Pollution Source Permit No. 13-1140-0001-03, 7/5/79 and IDAPA 58.01.01.817, TRS emissions are limited to a daily average values. Because the emission limit is not expressed on an hourly basis, as implied by this reporting rule, DEQ authorizes a waiver of this reporting requirement for the No. 4 Recovery Furnace.

> ***c.*** *Emission of TRS gases in pounds of sulfur per equivalent air-dried ton of pulp processed in the kraft cycle on a quarterly basis for each source included in the approved monitoring program. (4-5-00)*

Neither the Rules nor an underlying permit limits emissions on a quarterly basis. Therefore reporting quarterly emissions does not serve a compliance purpose and DEQ authorizes a waiver of this quarterly reporting requirement.

> ***d.*** *Emission of particulates in pounds per equivalent air-dried ton of pulp produced in the kraft cycle based upon sampling conducted in accordance with the approved monitoring program. (5-1-94)*

Periodic emission testing is required by the Tier I permit to determine compliance with the particulate matter emissions limits for the No. 4 Recovery Furnace and Smelt Tank. Reporting the results of the performance test is required within 30 days of the test. DEQ authorizes a waiver of the additional quarterly reporting requirement of §824.04.d.

> **e.** Average daily equivalent kraft pulp production in air-dried tons. (5-1-94)

This requirement is not specifically included in the current Tier I permit or in an underlying permit. However it is noted that the permittee is required to report excess emissions at least within 15 days of occurrence. Inherent to determining whether emissions exceed the 0.5 lb TRS per ton of equivalent air dried pulp is the requirement to monitor pulp production. If an exceedance occurs Clearwater must report that exceedance at least within 15 days. DEQ authorizes the excess emissions reporting requirements in the Facility-Wide permit conditions in lieu of quarterly reporting the pulp production.

05. Semi-Annual Reporting Requirements.

This section of the rule only applies to the digesters and evaporators.

EXISTING TIER I PERMIT CONDITIONS THAT ARE REDUNDANT

The existing Tier I permit included permit conditions that are redundant with other permit conditions. These permit conditions have been removed from Section 6 of the permit. The permit conditions that have been removed are listed below along with an explanation of why they are redundant.

Existing Tier I Permit Condition 5.4

Existing Tier I Permit Condition 5.4 stated that after March 13, 2004 the permittee shall comply with the emission limitation of 40 CFR 63.862 (MACT-Subpart MM). The requirements of MACT Subpart MM are included in the renewed Tier I permit in Section 5.

Existing Tier I Permit Condition 5.6

Existing Tier I Permit Condition 5.6 limits opacity from the smelt dissolving tank to 20% opacity. This permit condition is redundant with Facility-Wide Permit Condition 1.7 and has been removed from the permit.

Existing Tier I Permit Condition 5.9

Existing Tier I Permit Condition 5.9 required one-minute observations of the smelt dissolving tank using EPA Method 22. If visible emissions were observed EPA method shall be conducted or appropriate repairs shall be completed within 24 hours. This permit condition is redundant with Facility Wide Permit Condition 1.8. Additionally, CAM is a new applicable requirement to continuously monitor compliance with opacity limits from the smelt dissolving tank. Existing Tier I Permit Condition 5.9 has been removed from the renewed Tier I Permit.

Existing Tier I Permit Condition 5.10

Existing Tier I Permit Condition 5.10 required that performance test protocols be submitted 30 days prior to conducting PM testing on the No. 4 Recovery Furnace and No. 4 Smelt Dissolving Tank. This permit condition has been removed from the permit. Facility Wide Permit Condition 1.10 specifies the source testing requirements of IDAPA 58.01.01.157, which includes an encouragement for the facility to submit a source test protocol in writing to DEQ at least 30 days in advance of testing for approval.

Existing Tier I Permit Condition 5.11

This permit condition requires incorporates MACT requirements of Kraft Chemical Recovery Combustion Sources which is now included in Section 5 of the renewed Tier I permit.

Existing Tier I Permit Condition 5.12

This condition required submittal of source test protocol prior to conducting emissions testing. Facility-Wide Permit Condition 1.10 includes the source testing requirements.

Existing Tier I Permit Condition 5.13

Existing Tier I Permit Condition 5.11 requires submitting the results of source testing within 30 days of conducting the test. This condition is redundant with Facility-Wide Permit Condition 1.10 and has been removed from the permit.

Existing Tier I Permit Condition 5.14

This permit condition required reporting exceedances in accordance with General Provision 24. The permit condition is redundant, the reporting requirements are included in General Provision 24 and do not need to be repeated elsewhere in the permit.

NEW OR AMENDED PERMIT CONDTIONS

Following are discussions regarding new permit conditions added to the Tier I permit, and discussions on amendments made to existing Tier I permit conditions.

Amended Permit Condition 6.1

Existing Permit Condition 5.1 was cited to originate from 8/22/84 PTO No. 1140-0001. This permit condition expired on 8/21/89. The expired permit condition limited PM emissions to 0.040 gdscf and 2 lb/ADT.

The PM standard of 0.040 gdscf is now cited to originate from PTO No. 13-1140-0001, issued 7/5/79.

The 2 lb/ADT particulate matter limit expired on August 21, 1989 and can not be cited to another existing permit condition or rule. However, Clearwater has shown in their CAM plan for the No. 4 Recovery furnace that 2 lb/ADT is equivalent to 0.048 gdscf. The 0.040 gdscf standard is more stringent than the 2 lb/ADT standard. Therefore the August 21, 1989 expiration of the 2 lb/ADT particulate matter permit condition does not result in a relaxation of emission limits.

IDAPA 58.01.01.821 includes a PM standard of 4 lb/ADT that has now been included in the Tier I permit.

Amended Permit Condition 6.2

This permit condition is an amended version of existing Permit Condition 5.2. The only change/amendment was to update the citation or the origin of the permit condition. The existing permit cites PTO No. 1140-0001 issued 8/22/84 as the origin of the requirements. The 8/22/84 permit expired on 8/21/89 therefore the citation of the origin of the permit condition has been changed to the 7/5/79 operating permit and the Rules.

Amended Permit Condition 6.3

Existing Permit Condition 5.3 includes PM limits for the No. 4 Recovery Furnace an amended version of it is included in the Tier I permit. The limits are 0.070 gdscf and 0.4 lb/ADT. This permit condition was cited to originate from PTO No. 1140-0001 issued 8/22/84. The 8/22/84 permit expired on 8/21/89 therefore the citation of the origin of the permit condition was changed to the 7/5/79 operating permit for the 0.070 gdscf limit. Clearwater has shown their CAM plan for the No. 4 Smelt Tank that 0.07 gdscf is equivalent to 0.167 lb/ADT. The 0.07 gdscf particulate matter standard is more stringent that the 0.4 lb/ADT permit condition. Therefore the expiration of the 0.4 lb/ADT particulate matter permit condition does not result in a relaxation of emission limits. IDAPA 58.01.01.823 includes a PM emission standard of 0.5 lb/ADT which has been added to the Tier I permit in place of the 0.4 lb/ADT limit.

Amended Permit Condition 6.5

The existing Tier I permit cited the origin of this permit condition to be the 8/22/84 operating permit. This permit has expired and the origin of the permit condition is now cited to originate from the 7/5/79 SIP operating permit instead of the expired 8/22/84 operating permit.

New Permit Condition 6.6

New Permit Condition 6.6 requires monitoring of the daily average pounds of sulfur emitted per ton of air dried pulp processed. There previously was not a monitoring requirement to determine compliance with the pounds of sulfur emitted per ton of air dried pulp processed emission limit in renewed Permit Condition 6.2.

Amended Permit Condition 6.7

Existing Tier I Permit Condition 5.8 has been amended to require recording the opacity of emissions and the tons of air dried pulp processed during the source test.

The remaining existing Tier I permit requirements are unchanged but have been renumbered in the renewed Tier I permit.

Draft Permit Condition 6.8

The draft permit that was made available to public comment on January 26, 2009 included Permit Condition 6.8 which was a quote of the monthly reporting requirement included Air Pollution Source Permit No. 1140-0001, 8/22/84. This permit condition expired on August 21, 1989 and is not included in the permit. However it is noted that the permittee must report excess emissions at least within 15 days of occurrence in accordance with the Tier I Facility-Wide permit conditions.

SUMMARY OF SECTION 6 OF THE RENEWED TIER I PERMIT

Table 8.5 lists each emissions standard and operating requirement for the No. 4 Recovery Furnace and No. 4 Smelt Dissolving Tank. The table also references and/or describes the monitoring requirements that are included in the renewed Tier I permit to assure compliance with each standard or operating requirement.

Table 8.5 Applicable Requirements/Compliance Assurance Summary

Permit Condition	Requirement	Requirement Reference	Monitoring and Recordkeeping Requirements	Summary of Compliance Assurance Method
6.1	PM – Recovery Furnace - 0.040 gr/dscf and 4 lb/ADTP	7/5/79 PTC & IDAPA 58.01.01.821	6.7 & CAM requirements of Section 19	Periodic Source testing is required by 6.7 and CAM monitoring requirement are included in Section 19
6.2	TRS – Recovery Furnace - 15 ppm and 0.5 lb S/ T ADP	7/5/79 PTC & IDAPA 58.01.01.819	6.5, 6.6	TRS CEM in 6.5 and to calculate lb S/ADTP in 6.6 using TRS data
6.3	PM – Smelt Tank 0.070 gr/dscf and 0.5 lb/ADTP	7/5/79 PTC & IDAPA 58.01.01.823	6.7 & CAM requirements of Section 19	Periodic Source testing is required by 6.7 and CAM monitoring requirement are included in Section 19
6.4	40% Opacity – Recovery Furnace	IDAPA 58.01.01.625	6.5	COMS is required by 6.5.

8.7 No. 5 Recovery Furnace - Permit Section 7.0

The recovery furnace is part of the chemical recovery process of the pulping process. Black liquor from the pulp making process is combusted for heat recovery and to recover pulping chemicals.

Following is a list of underlying permits which have requirements that are applicable to the No. 5 Recovery Furnace:

- Permit to Construct, No. 1140-0001, 5/6/83
- EPA PSD Permit, X-84-01, 12/3/84
- EPA Amendments to PSD Permit, X-84-01, 10/17/94

Existing Tier I permit conditions for the No. 5 Recovery Furnace are in Section 6, they are now included in Section 7 of the renewed Tier I permit. Following are discussions regarding these underlying permits.

Permit to Construct, No. 1140-0001, 5/6/83

Permit to Construct, No. 1140-0001, was issued by DEQ in the form of a letter to Clearwater on May 6, 1983. This permit contains emissions limits for pollutants which are emitted at PSD levels. The PSD pollutants are nitrogen oxides, carbon monoxide, and sulfur dioxide. DEQ was not delegated authority to issue PSD permits at that time[25], therefore the emissions standards in Permit to Construct No. 1140-0001, 5/6/83 for nitrogen oxides, carbon monoxide, and sulfur dioxide are not applicable requirements because they were not issued pursuant to an approved state implementation plan (IDAPA 58.01.01.008.03). Nitrogen oxides, carbon monoxide, and sulfur dioxide emissions are regulated by the PSD permit issued by EPA on 12/3/84. However, the particulate matter emissions standards in Permit to Construct, No. 1140-0001, 5/6/83 are applicable requirements. The only particulate matter standard for the No. 5 Recovery Furnace is:

"Particulate emission rate: 58 pounds per hour, 0.03 grains per dry standard cubic feet."

This permit condition has been included in the existing Tier I permit and has not changed in this permit renewal:

7.1 PM emissions from the No. 5 recovery furnace shall not exceed 58 lb/hr or 0.03 gr/dscf.
[Permit No. 1140-0001, 5/6/83]

EPA PSD Permit, X-84-01, 12/3/84 & 10/17/94

EPA issued a PSD permit for the No. 5 Recovery Furnace on 12/3/84, and amended that permit on 10/17/94. Following is a discussion of those applicable requirements and how they are included in the Tier I permit.

[25] 40 CFR 52.683(c) - The requirements of section 165 of the Clean Air Act are not met for sources subject to prevention of significant deterioration requirements prior to August 22, 1986

1. Section one limits emissions of sulfur dioxide, carbon monoxide, and nitrogen oxides. The emissions limits were originally issued on 12/3/84 and then amended on 10/17/94. The following table shows the emissions limits, amended limits are struck out.

Emission Limits from EPA PSD Permit for No. 5 Recovery Boiler

	Pollutant	Pounds Per Hour	Tons Per Year	Parts Per Million
No. 5 Recovery Furnace	SO_2	~~450~~ 112	~~1960~~ 490	~~200~~–50
	CO	880	3850	900
	NO_x	~~320~~ 160	~~1400~~–700	~~200~~–100

These emissions limits are included in the existing Tier I permit and do not need to be added.

2. Section two of the permit states "With the exception of NOx, CO, and SO_2 increases in potential emissions of any pollutant regulated under the Clean Air Act resulting from this construction will be less than the significant limits [section 52.21(b)(21)(i)].

This requirement has been omitted from the current Tier I permit but has been included in the renewed Tier I permit.

3. Permit Condition 3 requires reporting any emissions in excess of standards in Permit Condition 1 or Permit Condition 2 within 10 days of the date of occurrence.

This requirement has been omitted from the current Tier I permit but has been included in the renewed Tier I permit.

4. Permit Condition 4 voids the permit if construction has not commenced within 18 months of 12/3/84.

This permit condition is obsolete and has not been included in the renewed Tier I permit.

5. Permit Condition 5 states that construction and operation shall be in accordance with the application which resulted in the EPA PSD permit issued 12/3/84. It also states general compliance obligations.

General compliance obligations are already present in the Tier I permit. Emissions from ongoing operation of the No. 5 recovery furnace shall comply with all emissions limits which are included in the permit.

6. Permit Condition 6 required reevaluating the SO_2 and NOx emissions limits after achieving specified production capacities.

This permit condition is obsolete because the SO_2 and NOx emissions limits were reestablished on 5/25/89 and 10/17/94.

7. Permit Condition 7 required conducting a performance test within 180 days after achieving normal production rate. It is also required that a CO and SO_2 continuous emissions monitors be installed and operated.

The initial tests have been conducted. The performance test requirements are obsolete and they are not included in the renewed Tier I permit. The requirement to operate CO and SO_2 continuous emissions monitors are included in the Tier I permit.

8 Permit Condition 8 required notification of construction startup within 30 days of their occurrence and is now an obsolete permit condition.

IDAPA 58.01.01.815 - RULES FOR CONTROL OF KRAFT PULPING MILLS

The Rules for the Control of Air Pollution in Idaho include specific requirements for recovery furnaces at kraft pulp mills. Following are the requirements that apply to the No. 5 Recovery Furnace along with a discussion on how they are addressed in this Tier I Permitting action.

RECOVERY FURNACE TRS STANDARDS- §819
The emission of TRS from all recovery furnace stacks shall be further reduced so as not to exceed one-half (1/2) pound of sulfur per equivalent ton of air-dried kraft pulp, or from each recovery furnace stack seventeen and one-half (17 1/2) ppm, expressed as hydrogen sulfide on a dry gas basis, whichever is the more restrictive, or such other limit of TRS that proves to be reasonably attainable utilizing the latest in design of recovery furnace equipment, controls, and procedures. Compliance shall be achieved by not later than July, 1975.

The current Tier I permit has the one-half pound of sulfur per air dried ton of pulp limit and does not have the 17.5 ppm TRS limit included. The Tier permit has been updated to include the 17.5 ppm TRS limit. It is noted that there is a 5 ppm TRS sulfur limit from NSPS Subpart BB for Kraft Pulp Mills. However, in accordance with the NSPS TRS emissions in excess of 5 ppm are not considered a violation if they do not occur for more than 1% of the operating time. Though if TRS emissions do exceed 17.5 ppm they would be a violation even if they occur less than 1% of the operating time of the furnace. Therefore it can not be concluded that the 5 ppm TRS NSPS standard is more stringent than the 17.5 ppm emissions standard in all cases. Both the 17.5 ppm and 5 ppm standards must be included in the permit.

RECOVERY FURNACE PARTICULATE STANDARDS - §821
The emission of particulate matter from all recovery furnace stacks shall not exceed four (4) pounds per ton of equivalent air-dried kraft pulp. Compliance with this requirement shall be achieved by not later than July, 1975.

This emissions standard is currently included in the existing Tier I permit and is carried over to the renewed Tier I permit.

SMELT TANK STANDARDS - §823
The emission of particulate material from all smelt tanks shall not exceed one-half (1/2) pound per ton of equivalent air-dried kraft pulp. Compliance with this requirement shall be achieved by not later than July, 1972.

Applies only to smelt tanks and is not included in Section 7 of the Tier I permit for the No. 5 Recovery Furnace.

MONITORING AND REPORTING - §824
01. Continuous Monitoring Requirements. *Every kraft mill in the State shall install equipment for the continuous monitoring of TRS. (5-1-94)*

- ***a.*** *The monitoring equipment shall be capable of determining compliance with these standards and shall be capable of continuous sampling and recording of the concentrations of TRS contaminants during a time interval not greater than thirty (30) minutes. (5-1-94)*
- ***b.*** *The sources monitored shall include, but are not limited to, the recovery furnace stacks and the lime kiln stacks. (5-1-94)*

NSPS Subpart BB for Kraft Pulp Mills requires continuously monitoring TRS emissions from the No. 5 Recovery Furnace and is included in the Tier I permit.

***02. Particulate Sampling**. Each mill shall sample the recovery furnace, lime kiln, and smelt tank for particulate emissions on a regularly scheduled basis in accordance with its sampling program as approved by the Department. The appropriate test method under Sections 821 through 823 shall be EPA Method 5 contained in 40 CFR Part 60 or such comparable and equivalent method approved in accordance with Subsection 157.02.d. Test methods and procedures shall also comply with Section 157. (4-5-00)*

This requirement is currently in the Tier I permit and §824.02 and is carried over to the renewed permit. The permit requires periodic testing of particulate matter from the No. 5 Recovery Furnace according to a schedule that is the same for the No. 4 Recovery Furnace. The periodic testing requirement in the Tier I permit is based on how close the initial test is to the standard. The most recent PM source test on the No. 5 Recovery Furnace was on 8/13/04, particulate was measured at 0.0037 gr/dscf and 0.11 pounds per ADTP; more than 10 times less than the applicable standards. Since the most recent test shows emissions to be more than 10 times less than the standard and since the renewed permit will have new CAM requirements to assure compliance with PM standards the testing frequency remains the same as previously permitted and is adequate to assure compliance. If the emissions measured in the first 12-months of the permit term are less than 50% of all emission limits, no further testing shall be required during this permit term. If the emissions measured in the initial test are between 50% and 80% of any standard, a second test shall be required in the third year of the permit term. If the initial test exceeds 80% of any standard, an annual test shall be required.

03. Monitoring Program and Time Schedule Submittal.

As required, Clearwater is operating a continuous TRS emission monitor on the No. 5 Recovery Furnace.

***04. Quarterly Reporting Requirements**. Unless otherwise authorized by the Department, data shall be reported by each mill at the end of each calendar quarter, as follows: (4-5-00)*

> ***a.** Daily average emission of TRS gases expressed in parts per million on a dry gas basis for each source included in the approved monitoring program. (5-1-94)*

DEQ authorizes submitting excess emissions reports in accordance with IDAPA 58.01.01.130-136 in lieu of the quarterly reporting specified by §824.04.a. Reporting excess emissions at least within 15 days of any such event in accordance with IDAPA 58.01.01.130-136 is determined to be sufficient.

The draft permit that was made available to public comment included Permit Condition 7.17 which was a quote of the quarterly reporting requirement of IDAPA 58.01.01.824.a. As described above, this monthly reporting requirement has been determined to be obsolete by the excess emissions reporting requirements of IDAPA 58.01.01.130-136 and Permit Condition 7.17 has been removed from the permit.

> ***b.** The number of hours each day that the emission of TRS gases from each recovery furnace stack exceeds emission standards and the maximum concentration of TRS measured each day. (5-1-94)*

Emissions are limited to daily average values (§817). Because the emission limit is not expressed on an hourly basis, as implied by this rule, DEQ authorizes a waiver of this reporting requirement for the No. 4 Recovery Furnace. However, it is noted that reporting of daily average emissions in excess of the standard is required within 15 days of occurrence in accordance with §132 and Facility-Wide Permit Condition 1.9.

c. Emission of TRS gases in pounds of sulfur per equivalent air-dried ton of pulp processed in the kraft cycle on a quarterly basis for each source included in the approved monitoring program. (4-5-00)

Neither the Rules nor an underlying permit limits emissions on a quarterly basis. Therefore reporting quarterly emissions does not serve a compliance purpose and DEQ authorizes a waiver of this quarterly reporting requirement.

d. Emission of particulates in pounds per equivalent air-dried ton of pulp produced in the kraft cycle based upon sampling conducted in accordance with the approved monitoring program. (5-1-94)

Periodic emission testing is required by the Tier I permit to determine compliance with the particulate matter emissions limits for the No. 5 Recovery Furnace. Reporting the results of the performance test is required within 30 days of the test. Therefore DEQ authorizes a waiver of this quarterly reporting requirement.

e. Average daily equivalent kraft pulp production in air-dried tons. (5-1-94)

The renewed Tier I permit now includes a monitoring requirement to demonstrate compliance with the pounds of sulfur per ton of air dried pulp (daily average) limit of IDAPA 58.01.01.819. In order to determine the daily average pounds of sulfur emitted per ton of air dried pulp processed it is necessary to monitor the daily average tons of air dried pulp processed.

05. Semi-Annual Reporting Requirements.

This section of the rule only applies to the digesters and evaporators.

New Source Performance Standards for Kraft Pulp Mill – Subpart BB

As discussed in detail in Section 7.2 of this Statement of Basis, the No. 5 Recovery Furnace is an affected emissions unit. The current Tier I permit includes these applicable requirements.

NEW OR AMENDED PERMIT CONDTIONS

Following are discussions regarding new Tier I permit conditions, and discussions regarding amendments made to existing Tier I permit conditions.

<u>New Permit Condition 7.4.2</u>

Permit Condition 7.4.2 includes the opacity limitation for recovery furnaces from IDAPA 58.01.01.625.02. The NSPS and IDAPA opacity standards have different numerical limits, different averaging periods, and different definitions of what constitutes a violation; therefore both the NSPS and IDAPA opacity standards need to be in the permit.

<u>New Permit Condition 7.8</u>

Permit Conditions 7.8 has been added to the renewed permit. This is an existing applicable requirement from EPA PSD Permit, X-84-01, 12/3/84 [Permit Condition 2] which had been omitted from the existing Tier I permit.

7.8 With exception of NO_x, CO, and SO_2 increases in potential emission of any pollutant regulated under the Clean Air Act resulting from construction of the No. 5 Recovery Boiler will be less than the significant levels [Section 52.21(b)(23)(i)].

[PSD permit X-84-01, 12/3/84]

In EPA technical analysis dated September 25, 1984 the only pollutants other than NO_x, CO, and SO_2 that were analyzed were PM and TRS.

No specific emission limits were expressed for PM and TRS in EPA's PSD permit; though emissions are limited to be below significant levels. According to the EPA technical analysis, if TRS emissions are less than 55 tons per year from the No. 4 and No. 5 Recovery Boilers a significant net emissions increase would not be occurring from the No. 5 recovery boiler project (EPA's September 25, 1984 PSD technical analysis is included in Appendix B of this Statement of Basis). Both the #4 and #5 Recovery Boilers are required to continuously monitor and record TRS emissions concentrations.

EPA did not include a specific PM emission limit in the PSD permit, however DEQ did in the permit to construct that was issued May 6, 1983. DEQ limited PM emissions to 58 pounds per hour (or 254 tons per year @ 8760 hr/yr) for the No. 5 recovery boiler. According to EPA's September 25, 1984 Technical Analysis a significant modification would not be occurring if PM emissions were 298 tons per year from the No. 5 Recovery Boiler and 229 tons per year from the No. 4 Recovery Boiler. The PM emissions limit of 254 tons per year from DEQ's permit issued May 6, 1983 for the No. 5 Recovery Boiler is less than 298 tons per year that was used in the EPA netting analysis. Therefore this emission limitation is consistent with EPAs PSD analysis. Periodic source testing is required to determine PM emissions rates; compliance with the 58 pounds per hour (254 tons per year) PM emission rate is consistent the EPA PSD netting analysis and assures compliance with the requirement for PM emissions to be less than significant.

PSD permit X-84-01, 12/3/84, and the renewed Tier I operating, require Clearwater to report within 10 days of occurrence if emissions cause a significant net emissions increase.

Renewed Permit Condition 7.10

Renewed Permit Condition 7.10 includes the TRS emissions standards of IDAPA 58.01.01.819. The existing Tier I permit (Condition 6.9) included the TRS emissions standard expressed as 0.5 lb S/ADTP but did not include the 17.5 ppm TRS emissions standard. Renewed Permit Condition 7.10 includes both standards. In the draft permit that was made available for Public Comment this permit condition was cited to be a federally enforceable permit condition. Based on a review of the EPA approved State Implementation Plan (SIP) it actually has not been approved as part of the SIP and has been cited as a "State Only" permit condition.

New Permit Condition 7.13

Permit Condition 7.13 has been added to the renewed Tier I permit. This permit condition requires using the TRS CEM emissions monitor to calculate the pounds of sulfur emitted per air dried pulp processed. The existing permit did not have a means of determining compliance with TRS emissions standard expressed as 0.5 lb S/ADTP. This permit condition is authorized by IDAPA 58.01.01.322.06 and requires utilizing CEM data already acquired by Clearwater to assure compliance with the 0.5 lb S/ADTP standard.

Renewed Permit Condition 7.15

Renewed Permit Condition 7.15 includes the NSPS reporting requirements that are in the existing Tier I operating permit (Condition 6.14) with clarification added of when excess emissions constitute a violation. The renewed permit condition also now makes clear that in addition to the NSPS excess emissions reporting requirements the Permittee must also comply with the excess emissions reporting requirements of IDAPA 58.01.01.135 included in Facility-Wide Permit Condition 1.9.

New Permit Condition 7.16

Permit Condition 7.16 has been added to the renewed Tier I permit. It is Permit Condition 3 from the underlying EPA PSD Permit, X-84-01, 12/3/84. It requires reporting of excess emissions within 10 days of occurrence.

Existing Tier I Permit Conditions 6.15 and 6.16

Existing Tier I Permit Conditions 6.15 and 6.16 were included in the draft Tier I permit which was made available for Public Comment. Based on comment it has been determined that these permit condition are redundant with Permit Condition 7.10 which included the testing requirements of IDAPA 58.01.01.157 and they are therefore not included in the Tier I permit.

The remaining existing Tier I permit requirements are unchanged but have been renumbered in the renewed Tier I permit.

SUMMARY OF SECTION 7 OF THE RENEWED TIER I PERMIT

Table 8.6 lists each emissions standard and operating requirement for the No. 5 Recovery Furnace. The table also references and/or describes the monitoring requirements that are included in the renewed Tier I permit to assure compliance with each standard or operating requirement.

Table 8.6 Applicable Requirements/Compliance Assurance Summary

Permit Condition	Requirement	Requirement Reference	Monitoring and Recordkeeping Requirements	Summary of Compliance Assurance Method
7.1	PM - 58 lb/hr; 0.03 gr/dscf	Permit to Construct, No. 1140-0001, 5/6/83	7.14 & CAM requirements of Section 19	Periodic Source testing is required by 7.14 and CAM monitoring requirement are included in Section 19
7.2	PM - 0.044 gr/dscf	40 CFR 60.282	7.14 & CAM requirements of Section 19	Periodic Source testing is required by 7.14 and CAM monitoring requirement are included in Section 19
7.3	PM - 4 lb/ADTP	IDAPA 58.01.01.821	7.14 & CAM requirements of Section 19	Periodic Source testing is required by 7.14 and CAM monitoring requirement are included in Section 19
7.4.1	35% Opacity	40 CFR 60.282	7.12	COMS is required by NSPS.
7.4.2	40% Opacity	IDAPA 58.01.01.625.02	7.12	COMS is required by NSPS.
7.5	CO- 880 lb/hr; 3,850 T/yr; 900 ppm	PSD permit X-84-01, 12/3/84	7.11	CEM for CO is required
7.6	SO_2 – 112 lb/hr; 490 T/yr; 50 ppm	PSD permit X-84-01, 12/3/84 revised 10/17/94	7.11	CEM for SO_2 is required
7.7	NOx - 160 lb/hr; 700 T/yr; 100 ppm	PSD permit X-84-01, 12/3/84 revised 10/17/94	7.14	Periodic emission testing
7.8	PSD pollutants other than CO, NOx, SO_2 Less than significant	PSD permit X-84-01, 12/3/84	7.12; 7.14	Periodic testing for PM is required and a CEM is required for TRS
7.9	TRS – 5 ppm	40 CFR 60.283	7.12	CEM for TRS is required
7.10	TRS – 17.5 ppm; 0.5 lb S/ADTP	IDAPA 58.01.01.819	7.12; 7.13	CEM for TRS is required; Pounds of sulfur emitted is required to be calculated

8.8 No. 5 Smelt Dissolving Tank - Permit Section 8.0

The No. 5 Smelt Dissolving tank is associated with the No. 5 Recovery Furnace and is used as part of the chemical recovery process.

Existing Tier I permit conditions for the No. 5 Smelt Tank are in Section 7, they are now included in Section 8 of the renewed Tier I permit.

Permit to Construct No. 1140-0001 issued May 6, 1983 is the only underlying permit that has applicable requirements for the No. 5 Smelt Dissolving tank. That permit has only one emission standard for the No. 5 Smelt Dissolving tank and it is included in renewed Tier I Permit Condition 8.1.

8.1 The PM emissions from the smelt-dissolving-tank vent shall not exceed 10.4 lb/hr and 45 T/yr. **[Permit 1140-0001, 5/6/83]**

IDAPA 58.01.01.815 - RULES FOR CONTROL OF KRAFT PULPING MILLS

The Rules for the Control of Air Pollution in Idaho include specific requirements for kraft pulp mills. Following are the requirements that apply to the No. 5 Smelt Tank along with a discussion on how they are addressed in this Tier I permitting action.

SMELT TANK STANDARDS - §823
The emission of particulate material from all smelt tanks shall not exceed one-half (1/2) pound per ton of equivalent air-dried kraft pulp. Compliance with this requirement shall be achieved by not later than July, 1972.

This emissions standard is included in the existing and renewed Tier I permit.

MONITORING AND REPORTING - §824
01. Continuous Monitoring Requirements. *Every kraft mill in the State shall install equipment for the continuous monitoring of TRS. (5-1-94)*

- ***a.*** *The monitoring equipment shall be capable of determining compliance with these standards and shall be capable of continuous sampling and recording of the concentrations of TRS contaminants during a time interval not greater than thirty (30) minutes. (5-1-94)*
- ***b.*** *The sources monitored shall include, but are not limited to, the recovery furnace stacks and the lime kiln stacks. (5-1-94)*

The rules do not require a TRS continuous monitoring system on the smelt dissolving tanks. A CEM is required only for the recovery furnace stacks and the lime kiln stacks

02. Particulate Sampling. *Each mill shall sample the recovery furnace, lime kiln, and smelt tank for particulate emissions on a regularly scheduled basis in accordance with its sampling program as approved by the Department. The appropriate test method under Sections 821 through 823 shall be EPA Method 5 contained in 40 CFR Part 60 or such comparable and equivalent method approved in accordance with Subsection 157.02.d. Test methods and procedures shall also comply with Section 157. (4-5-00)*

This requirement is not currently in the Tier I permit. In determining what frequency of testing is appropriate to include in the renewed Tier I permit the most recent two PM source test results on the No. 5 smelt tank vent were reviewed to determine at what levels PM was being emitted relevant to the PM emissions standards. Table 8.7 summarizes the PM emissions standards applicable to the No. Smelt Tank and the PM emissions data from the August 13, 2004 and February 23, 2005 source tests.

Table 8.7 - No. 5 Smelt Tank PM Standards and Test Data

PM Standards	Test Data - 8/13/04	Test Data - 2/23/05
10.4 lb/hr	10.1 lb/hr	7.41 lb/hr
0.20 lb/T black liquor solids	0.115 lb/T black liquor solids	0.075 lb/T black liquor solids
0.5 lb/T air dried pulp	0.2 lb/T air dried pulp	0.13 lb/T air dried pulp

In addition to considering the results of the most recent PM source test it has been considered that the No. 5 Smelt Tank is subject to the compliance assurance monitoring (CAM) requirements of 40 CFR 64. The accepted method for assuring compliance, in accordance with CAM, for the No. 5 smelt tank is to monitor the scrubbers fan load and the scrubbing media flow rate. Operating ranges for these parameters to assure compliance with standards have been established at 55% fan load and 350 gallons per minute for the scrubbing media flow. These parameters provide a reasonable assurance of compliance; however compliance may only be determined by conducting a performance test on the stack. Because emissions were measured greater than 50% of the pounds of PM per ton of black liquor solids standard, and greater than 95 percent of the pound per hour emission limit, testing is required to determine compliance once during the first 12-months of the permit term and then again during the third year of the permit term. The permittee shall continuously monitor and record the percent of fan motor load and the scrubbing media flow rate during the test. If test results show that the approved operating ranges for fan motor load and scrubbing media flow rate that are listed Table 19.2 of this permit do not provide an indication of an excursion or exceedance then the permittee shall submit a proposed modification to this permit to address the necessary CAM monitoring changes. These testing requirements are included in renewed Tier I Permit Condition 8.7.

In summary, the emissions data available shows that additional testing is needed to assure ongoing compliance. Additionally, the results of the source tests need to be reviewed to assure the compliance assurance operating ranges are validated.

03. Monitoring Program and Time Schedule Submittal.

Clearwater will be required to monitor in accordance with the renewed Tier I operating permit.

04. Quarterly Reporting Requirements. *Unless otherwise authorized by the Department, data shall be reported by each mill at the end of each calendar quarter, as follows: (4-5-00)*

> ***a.*** *Daily average emission of TRS gases expressed in parts per million on a dry gas basis for each source included in the approved monitoring program. (5-1-94)*

There are no daily average TRS emission limits for the smelt dissolving tanks included in the Rule for the Control of Kraft Pulp Mills §815, therefore reporting is not required.

> ***b.*** *The number of hours each day that the emission of TRS gases from each recovery furnace stack exceeds emission standards and the maximum concentration of TRS measured each day. (5-1-94)*

This section only pertains to recovery furnaces.

> ***c.*** *Emission of TRS gases in pounds of sulfur per equivalent air-dried ton of pulp processed in the kraft cycle on a quarterly basis for each source included in the approved monitoring program. (4-5-00)*

Neither the Rules nor an underlying permit limits emissions on a quarterly basis. Therefore reporting quarterly emissions does not serve a compliance purpose and DEQ authorizes a waiver of this quarterly reporting requirement.

> ***d.*** *Emission of particulates in pounds per equivalent air-dried ton of pulp produced in the kraft cycle based upon sampling conducted in accordance with the approved monitoring program. (5-1-94)*

Periodic emission testing is required by the Tier I permit to determine compliance with the particulate matter emissions limits for the No. 5 Smelt Tank. Reporting the results of the performance test is required within 30 days of the test. DEQ authorizes a waiver of the additional requirement to submit the test results again at the end of each quarter.

e. Average daily equivalent kraft pulp production in air-dried tons. (5-1-94)

This requirement is not specifically included in the current Tier I permit or in an underlying permit. No emissions standards for the smelt dissolving tank are expressed in units of daily average pulp production. Therefore a waiver of this reporting requirement for the No. 5 Smelt Tank is granted.

05. Semi-Annual Reporting Requirements.

This section of the rule only applies to the digesters and evaporators.

New Source Performance Standards for Kraft Pulp Mill – Subpart BB

As discussed in detail in Section 7.2 of this Statement of Basis, the No. 5 Smelt Tank is an NSPS Subpart BB affected emissions unit. The current Tier I permit includes these applicable requirements.

EXISTING TIER I PERMIT CONDITIONS THAT ARE REDUNDANT

The existing Tier I permit included permit conditions that are redundant with other permit conditions. These redundant permit conditions have been removed from Section 8 of the permit. The permit conditions that have been removed are listed below along with an explanation of why they are redundant.

Existing Tier I Permit Condition 7.4

Existing Tier I Permit Condition 7.4 limits opacity from the No. 4 smelt dissolving tank to 20% opacity. This permit condition is redundant with Facility-Wide Permit Condition 1.7 and has been removed from the permit.

Existing Tier I Permit Condition 7.6

Existing Tier I Permit Condition 7.6 stated that the permittee shall comply with the applicable monitoring requirements of 40 CFR 63.864 to 63.867. These CFR requirements are now included in Section 5 of the renewed Tier I permit. Existing Tier I Permit Condition 7.6 also referenced an EPA approved alternative to monitoring pressure drop across the scrubber, that alternative is also now included in Section 5 of the permit. The requirements of existing Tier I Permit Condition 7.6 are included in other permit conditions and are not repeated in this Section of the permit.

Existing Tier I Permit Condition 7.7

Existing Permit Tier I Permit Condition 7.7 required one-minute observations of the smelt dissolving tank using EPA Method 22. If visible emissions were observed EPA Method 9 shall be conducted or appropriate repairs shall be completed within 24 hours. This permit condition is redundant with Facility Wide Permit Condition 1.8.

NEW OR AMENDED PERMIT CONDTIONS

Following are discussions regarding new permit conditions added to the Tier I permit, and discussions on amendments made to existing Tier I permit conditions.

Renewed Permit Condition 8.5

Existing Tier I Permit Condition 7.8(i), which includes the NSPS Subpart BB requirement for monitoring pressure drop across the scrubber, has been amended and is now Renewed Permit Condition 8.6. A note has been added to the permit condition which states that EPA has approved monitoring of the percent of fan load instead of pressure drop across the scrubber for the No. 5 Smelt Tank for purposes of 40 CFR 63, Subpart MM. DEQ has not been delegated authority to approve changes to monitoring specifically required by the NSPS. Changes to monitoring required by the NSPS must be approved by EPA. However, it is assumed that EPA would approve the alternative since both NSPS and MACT monitoring requirements are identical.

New Permit Condition 8.7

Permit Condition 8.7 has been added the permit to require testing to assure compliance with the particulate matter emissions standards. The justification for the testing requirement is provided in this Statement of Basis with the description on how the Rules for the Control of Kraft Pulp Mills §824.02 (Particulate Matter Sampling) have been incorporated into the renewed Tier I permit for the No. 5 Smelt Dissolving Tank.

New Permit Condition 8.8

Permit Condition 8.8 has been added to the permit to assure compliance with the NSPS Subpart BB TRS emissions limit of 0.033 lb/T of black liquor solids. A TRS emission test is required once each 12-months of the permit term.

Clearwater indicated that ongoing compliance is demonstrated by monitoring the pressure drop across the scrubber and by monitoring the scrubbing media flow rate to the scrubber. No correlation between TRS emission rates, production rate, and the scrubber operating parameters were provided. In determining what source test frequency is appropriate for demonstrating compliance with the TRS emission limit DEQ reviewed the most recent TRS source test data to determine what the measured emissions of TRS have been. Table 8.8 presents that data.

Table 8.8 No. 5 Smelt Tank TRS Emissions

Test Date	Process Rate (lb/hr)	TRS Emissions (lb/TBLS)	NSPS Standard (lb/TBLS)
4/2/05	182,000	0.016	0.033
5/26/05	184,740	0.023	

In absence of other relevant data, such as scrubbing media flow rate and pressure drop across the scrubber, a rough assumption may be made that TRS emissions are linear with the process rate. Under this assumption the TRS emissions would be equivalent to the TRS standard (0.033 lb/TBLS) at a production rate of 188,630 pounds of black liquor solids per hour which is a production rate well within the capabilities of the facility. The assumption that emission rates are linear with production is only based on two data points, and does not incorporate the critical scrubber operating parameters therefore requiring additional TRS source tests during each year of the term of the permit is warranted.

Additional testing data is needed to justify that monitoring flow rate and pressure drop assures compliance with the TRS emission standard.

SUMMARY OF SECTION 8 OF THE RENEWED TIER I PERMIT

Table 8.9 lists each emissions standard and operating requirement for the No. 5 Smelt Tank. The table also references and/or describes the monitoring requirements that are included in the renewed Tier I permit to assure compliance with each standard or operating requirement.

Table 8.9 Applicable Requirements/Compliance Assurance Summary

Permit Condition	Requirement	Requirement Reference	Monitoring and Recordkeeping Requirements	Summary of Compliance Assurance Method
8.1	PM - 10.4 lb/hr and 45 T/yr	Permit to Construct, No. 1140-0001, 5/6/83	8.5, 8.6	Periodic Source testing is required by 8.6, scrubber parameters are required to be monitored by 8.5
8.2	PM - 0.20 lb/T black liquor solids	40 CFR 60.282(a)(2) 40 CFR 63.862(a)(1)(i)(B	8.5, 8.6	Periodic Source testing is required by 8.7, scrubber parameters are required to be monitored by 8.5
8.3	PM - 0.5 lb/T ADP	IDAPA 58.01.01.823	8.5, 8.6	Periodic Source testing is required by 8.7, scrubber parameters are required to be monitored by 8.5
8.4	TRS- 0.033 lb/T black liquor solids	40 CFR 60.283(a)(4)	8.5, 8.7	Periodic Source testing is required by 8.7, scrubber parameters are required to be monitored by 8.5

8.9 No. 4 and No. 5 Recovery Furnace Salt-Cake Systems – Permit Section 9.0

The No. 4 and No. 5 Recovery Furnace Salt-Cake Systems are used as part of the chemical recovery process. Saltcake is used as a makeup chemical in the pulping liquor cycle.

Existing Tier I permit conditions for the No. 4 and No. 5 Recovery Furnace Salt-Cake Systems are in Section 8, they are now included in Section 9 of the renewed Tier I permit.

Permit to Construct No. 069-00001 issued January 29, 1997 is the only underlying permit that has applicable requirements for the No. 4 and No. 5 Recovery Furnace Salt-Cake Systems. Following is a discussion on how each underlying applicable requirement has been included in the renewed Tier I permit.

Permit to Construct, No. 069-00001, 1/29/97

1. Emission Limits

Conditions 1.1 & 1.2

The emissions limits of Section 1.1 and 1.2 from the underlying permit are included in the existing Tier I permit as quotes of the underlying emissions limitations. They have not changed in the renewed Tier permit except that they have been renumbered.

2. Operating Requirements

Conditions 2.1.1 & 2.1.2

Throughput limitations from Section 2.1.1 and 2.1.2 of the underlying permit are quoted in the existing Tier I permit. They have not changed in the renewed Tier permit except that they have been renumbered.

Condition 2.2

Control equipment requirements from Section 2.2 of the underlying permit are quoted in the existing Tier I permit. The requirements have not changed in the renewed Tier permit except that they have been renumbered.

Condition 2.3

The baghouse specification requirements from Section 2.3 of the underlying permit had not been included in the existing Tier I permit. Following is a quote of that underlying permit condition.

> "2.3 Each system baghouse shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with the exception of the pressure drop. Each saltcake system baghouse shall be installed, operated and maintained in accordance with the Operations and Maintenance (O&M) manual specified in Section 2.4 of this permit, including the pressure drop, in order to determine compliance with the control efficiencies listed in Section 2.2 of this permit. All manufacturer's specifications, operating and installation instructions shall be kept on-site for as long as each baghouse is used, and made available to DEQ representatives upon request".

This permit condition is confusing. It sates that baghouse pressure drop does not need be maintained in accordance with manufacturer specifications. However, the permit condition does seem to imply that pressure drop should be maintained within the O&M manual requirements. Yet the O&M manual requirements of 2.4 of the permit do not specifically require that pressure drop has to be included in the O&M manual. In summary there is no specific enforceable requirement for pressure drop included in this permit condition. This renders the confusing and ambiguous pressure drop language obsolete. The underlying permit condition which had been omitted from the existing Tier I permit is now included in the renewed Tier I permit as follows:

> 9.5 Each system baghouse shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with the exception of the pressure drop. Each saltcake system baghouse shall be installed, operated and maintained in accordance with the Operations and Maintenance (O&M) manual specified in Section ~~2.4~~ 9.6 of this permit~~, including the pressure drop,~~ in order to determine compliance with the control efficiencies listed in Section ~~2.2~~ 9.4 of this permit. All manufacturer's specification, operating and installation instructions shall be kept on-site for as long as each baghouse is used, and made available to DEQ representatives upon request.

Condition 2.4

Following is a quote of the underlying permit condition:

> "2.4 Operation and Maintenance Manual

Within sixty (60) days of receipt of this permit, the permittee shall have developed an O&M manual for the air pollution control device which describes the procedures that will be followed to comply with General Provision B and Section 2.3 of this permit. The O&M manual shall remain on-site at all times and copies shall be made available to DEQ representatives upon request." [PTC No. 069-00001, 1/29/97]

This permit condition has been included in the existing Tier I permit but it is not a quote of the underlying requirement. Following is how it appears in the existing Tier I permit.

"8.6 Within 60 days of issuance of this permit, the permittee shall have developed an O&M manual for the air pollution control equipment that incorporates manufacturer operating specifications and recommendations. The manual shall be updated as necessary and shall include, at a minimum, the following:

- Normal operating conditions, parameters, and procedures
- Startup, shutdown and malfunction procedures
- Guidelines for normal maintenance schedules and procedures

The O&M manual shall remain onsite at all times and shall be made available to DEQ representatives upon request."

The underlying permit condition has now been included in the renewed Tier I permit as follows:

9.6 ~~Within sixty (60) days of receipt of this permit,~~ [T]he permittee shall have developed an O&M manual for the air pollution control device which describes the procedures that will be followed to comply with ~~General Provision B and~~ Section ~~2.3~~ 9.5 of this permit. The O&M manual shall remain on-site at all times and copies shall be made available to DEQ representatives upon request.

The requirement to develop an O&M manual within 60 days of January 29, 1997 is obsolete. General Provision B requires operating the baghouses efficiently; this is redundant with the underlying permit condition that requires the baghouses to be 99.96% efficient. Therefore the reference of 60 days and General Provision B has been deleted.

3. Monitoring Requirements

Conditions 3.1 & 3.2

The monitoring requirements from the underlying permit (3.1 & 3.2, PTC No. 069-00001, 1/29/97) are included in the existing Tier I permit as quotes. They have not changed in the renewed Tier I permit except that they have been renumbered.

4. Reporting and Recordkeeping Requirements

Condition 4.1

This permit condition requires reporting exceedances within a "reasonable" time. Facility-Wide Permit Condition 1.9 includes the specific requirements of IDAPA 58.01.01.135 for reporting all excess emissions. Therefore this underlying permit condition does not need to be included in the Tier I permit; it is covered by Facility-Wide Permit Condition 1.9.

Condition 4.1

This condition requires that all documents submitted must be certified by a responsible official. This underlying permit condition is redundant with Tier I General Provision 17 and has not been included in Section 9 of the renewed permit.

EXISTING TIER I PERMIT CONDITIONS THAT ARE REDUNDANT OR REMOVED

The existing Tier I permit included conditions that are redundant with other permit conditions. These permit conditions have been removed from Section 9 of the permit. The permit conditions that have been removed are listed below along with an explanation of why they are redundant.

Existing Tier I Permit Condition 8.2

Existing Tier I Permit Condition 8.2 limits opacity from the saltcake baghouse stacks to 20% opacity. This permit condition is redundant with Facility-Wide Permit Condition 1.7 and has been removed from this section of the permit.

Existing Tier I Permit Condition 8.9

Existing Tier I Permit Condition 8.9 required reporting exceedances semiannually and the origin of the permit term was cited to be Permit to Construct No. 069-00001 issued January 29, 1997. This underlying permit does not include this requirement and it has been removed from the renewed Tier I permit.

SUMMARY OF SECTION 9 OF THE RENEWED TIER I PERMIT

Table 8.10 lists each emissions standard and operating requirement for the No. 4 and No. 5 Recovery Furnace Salt-Cake Systems. The table also references and/or describes the monitoring requirements that are included in the renewed Tier I permit to assure compliance with each standard or operating requirement.

Table 8.10 Applicable Requirements/Compliance Assurance Summary

Permit Condition	Requirement	Requirement Reference	Monitoring and Recordkeeping Requirements	Summary of Compliance Assurance Method
9.1	PM and PM_{10} Emissions Limits	PTC No. 069-00001, 1/29/97	9.2 through 9.8	Throughput restrictions and baghouse operating and monitoring requirements
9.2 and 9.3	Throughput Limit	PTC No. 069-00001, 1/29/97	9.7	Monitor Throughput

8.10 No. 3 & No. 4 Lime Kilns - Permit Section 10.0

The No.3 & No. 4 Lime Kilns are used as part of the chemical recovery process of the kraft pulping process.

Permit to Construct No. 069-0001 issued February 27, 2003 is the only underlying permit that has applicable requirements for the No. 4 and No.5 Lime Kilns. The existing Tier I includes PTC No. 069-00001 issued June 24, 2002; the February 27, 2003 permit has superseded the June 24, 2002 permit and

is included in the new Tier I permit. All underlying requirements from the February 27, 2003 permit were included the Tier I permit that was made available for public comment on January 26, 2009. Clearwater commented that the February 27, 2003 permit included NSPS Subpart BB reporting requirements that are not applicable to the No. 3 and No. 4 Lime Kilns because the Kilns are not affected by the NSPS. This comment is supported by the Statement of Basis that was issued with February 27, 2003 permit. The Statement of Basis states that the lime kilns are not affected units because they were constructed or modified prior to the NSPS Subpart BB applicability date. Therefore the underlying permit conditions of the February 27, 2003 permit which specify NSPS Subpart BB reporting requirements are not included in the Tier I permit because they are not applicable to the No. 3 and No. 4 Lime Kilns. Specifically, underlying permit conditions 4.3.2, 4.3.3 and 9.3.2, and 9.3.3 are not included in the Tier I permit. Additionally, Clearwater commented that underlying Permit Conditions 4.3.3 and 9.3.3 (February 27, 2003 PTC) also contain 40 CFR 63 Subpart S and IDAPA excess emissions reporting requirements that are redundant with excesses emissions reporting requirements that are included in Section 5 of the Tier I permit (i.e. 40 CFR 63 Subpart S) and in Tier I Permit Condition 1.9 (i.e. IDAPA excess emissions reporting requirements). Therefore these redundant permit requirements (included in Underlying Permit Conditions 4.3.3 and 9.3.3) are not included in the Section 9 of the renewed Tier I permit. All other permit conditions from the February 27, 2003 PTC are included in the Tier I permit without change.

The No. 3 and No. 4 Lime Kilns are also regulated by MACT Subpart MM (Section 5 of the renewed Tier I permit), and in Section 19 of the renewed Tier I permit which includes CAM requirements.

The existing Tier I permit limits carbon monoxide emissions to 80.4 lb/12-hours from each kiln, periodic testing of carbon monoxide has been added to the Tier I permit to demonstrate compliance with the emissions limit. The Tier I application submitted by Clearwater to renew the permit specifies that testing is the means of determining compliance with the carbon monoxide limits.

IDAPA 58.01.01.815 - RULES FOR CONTROL OF KRAFT PULPING MILLS

The Rules for the Control of Air Pollution in Idaho include specific requirements for kraft pulp mills. Following are the requirements that apply to the No. 3 and No. 4 Lime Kilns along with a discussion on how they are addressed in this Tier I Permitting action.

LIME KILN STANDARDS - §822
The emission of particulate matter from all lime kilns shall not exceed one (1) pound per ton of equivalent air-dried kraft pulp. Compliance with this requirement shall be achieved by not later than July, 1975.

This requirement is included in the existing Tier I permit and is now included in Section 10.5 of the renewed Tier I permit.

MONITORING AND REPORTING - §824
01. Continuous Monitoring Requirements. *Every kraft mill in the State shall install equipment for the continuous monitoring of TRS. (5-1-94)*

- ***a.*** *The monitoring equipment shall be capable of determining compliance with these standards and shall be capable of continuous sampling and recording of the concentrations of TRS contaminants during a time interval not greater than thirty (30) minutes. (5-1-94)*
- ***b.*** *The sources monitored shall include, but are not limited to, the recovery furnace stacks and the lime kiln stacks. (5-1-94)*

Continuous TRS emissions monitoring requirements are included in the permit.

02. Particulate Sampling. *Each mill shall sample the recovery furnace, lime kiln, and smelt tank for particulate emissions on a regularly scheduled basis in accordance with its sampling program as approved by the*

Department. The appropriate test method under Sections 821 through 823 shall be EPA Method 5 contained in 40 CFR Part 60 or such comparable and equivalent method approved in accordance with Subsection 157.02.d. Test methods and procedures shall also comply with Section 157. (4-5-00)

This requirement is currently in the Tier I permit. It originates from this rule and the underlying Permit to Construct No. 069-00001, issued February 27, 2003. It is included in the renewed Tier I as a quote of the underlying permit requirement.

03. Monitoring Program and Time Schedule Submittal.

Clearwater will be required to monitor in accordance with the renewed Tier I operating permit.

04. Quarterly Reporting Requirements. *Unless otherwise authorized by the Department, data shall be reported by each mill at the end of each calendar quarter, as follows: (4-5-00)*

> ***a.*** *Daily average emission of TRS gases expressed in parts per million on a dry gas basis for each source included in the approved monitoring program. (5-1-94)*

Neither the Rules nor an underlying permit limits TRS emissions from the lime kilns. Therefore reporting quarterly emissions does not serve a compliance purpose and DEQ authorizes a waiver of this quarterly reporting requirement.

> ***b.*** *The number of hours each day that the emission of TRS gases from each recovery furnace stack exceeds emission standards and the maximum concentration of TRS measured each day. (5-1-94)*

This only applies to recovery furnaces.

> ***c.*** *Emission of TRS gases in pounds of sulfur per equivalent air-dried ton of pulp processed in the kraft cycle on a quarterly basis for each source included in the approved monitoring program. (4-5-00)*

Neither the Rules nor an underlying permit limits emissions on a quarterly basis. Therefore reporting quarterly emissions does not serve a compliance purpose and DEQ authorizes a waiver of this quarterly reporting requirement.

> ***d.*** *Emission of particulates in pounds per equivalent air-dried ton of pulp produced in the kraft cycle based upon sampling conducted in accordance with the approved monitoring program. (5-1-94)*

Periodic emission testing is required by the Tier I permit to determine compliance with the particulate matter emissions limits for the No. 3 and No. 4 Lime Kilns. Reporting the results of the performance test is required within 30 days of the test. DEQ authorizes a waiver of this additional quarterly reporting requirement.

> **e.** Average daily equivalent kraft pulp production in air-dried tons. (5-1-94)

The PM emissions standard for the No. 3 and No. 4 Lime Kiln is not expressed in units of daily average productions of air dried pulp. DEQ authorizes a waiver of this reporting requirement for the No. 3 and No. 4 Lime Kilns.

05. Semi-Annual Reporting Requirements.

This section of the rule only applies to the digesters and evaporators.

NEW OR AMENDED PERMIT CONDTIONS

Following is a discussion regarding the new permit condition that has been added to the Tier I permit. All existing Tier I permit conditions remained unchanged in the renewed Tier I permit except that they have been renumbered.

New Permit Condition 10.25

Renewed Tier I Permit Condition 10.25 is a new permit condition requiring carbon monoxide emission testing according to the following schedule:

> "Periodic performance testing for CO emissions from each of the lime kiln stacks shall be accomplished by the permittee as follows. A test shall be conducted on each kiln within 12 months of issuance of this permit to demonstrate compliance with the carbon monoxide pound per 12-hour emission limit in Permit Conditions 10.1. If the CO measured in the most recent performance test is less than or equal to 75% of any respective particulate standard listed in Permit Condition 10.1, then the permittee shall conduct periodic performance tests every three calendar years beginning within three calendar years from the most recent test date. If the CO measured in the most recent performance test is greater than 75% of any respective particulate standard listed in Permit Condition 10.1, then the permittee shall conduct periodic performance tests annually beginning within 12 months from the most recent test date. Annual performance tests shall be separated by a minimum of six months. All testing shall be in accordance with Facility-Wide Permit Condition 1.10."

Requiring source testing according to this schedule is consistent with what DEQ requires in Tier I operating permits when no emissions data has been submitted by the applicant upon which DEQ can make an informed decision on the testing frequency necessary to assure compliance. Carbon monoxide emissions are dependent upon the sources actual design and operational characteristics. Actual emissions may vary from published emissions factors that have been developed from testing kilns at other pulp mills. In absence of any carbon monoxide emissions data for the No. 3 and No. 4 Lime Kilns, requiring testing according to the schedule included in the renewed Tier I permit is warranted to assure compliance.

SUMMARY OF SECTION 10 OF THE RENEWED TIER I PERMIT

Table 8.11 lists each emission standard and operating requirement for the No. 3 and No. 4 Lime Kilns included in Section 10 of the permit. The table also references and/or describes the monitoring requirements that are included in the renewed Tier I permit to assure compliance with each standard or operating requirement. The No. 3 and No. 4 Lime Kilns are also regulated by MACT Subpart MM (Section 5 of the renewed Tier I permit), and in Section 19 of the renewed Tier I permit which includes CAM requirements.

Table 8.11 Applicable Requirements/Compliance Assurance Summary

Permit Condition	Requirement	Requirement Reference	Monitoring and Recordkeeping Requirements	Summary of Compliance Assurance Method
10.1	PM, PM_{10}, SO_2, NO_x, CO, and TRS – lb/hr; T/yr	PTC No. 069-0001, 2/27/03	10.8 - 10.25	All pollutants either have CEMs or periodic source testing requirements

10.2	TRS - 40 ppm No. 3 Kiln 50 ppm No. 4 Kiln	PTC No. 069-0001, 2/27/03	10.21	CEM is required for TRS
10.3	Opacity – 25% No. 3 Kiln 20% No. 4 Kiln	PTC No. 069-0001, 2/27/03	10.19	COMS is required for opacity
10.4	SO_2 for kiln No. 4 – 20 ppm	PTC No. 069-0001, 2/27/03	10.20, 10.22-24	CEM is required for SO_2
10.5	PM – 1.0 lb/ADTP	PTC No. 069-0001, 2/27/03	10.13-15	Periodic testing is required
10.6	Throughput Limit – 10.5 T/hr each; 175,200 T/yr combined	PTC No. 069-0001, 2/27/03	10.16	Monitoring of throughput is required for all specified averaging periods (12-hr & consecutive 12-months)

8.11 No. 2 Lime Kilns - Permit Section 11.0

The #2 lime kiln is not currently operating and has not operated since the MACT Subpart MM compliance date of March 13, 2004. Lime Kiln No. 2 is not permitted to process lime mud from the kraft pulp process. Lime rock is processed to produce lime and is independent of the kraft chemical recovery process.

Existing Tier I permit conditions for the No. 2 Lime Kiln are in Section 10, they are now included in Section 11 of the renewed Tier I permit. The No. 2 Lime Kiln is also regulated in Section 5 of the renewed Tier I permit (MACT Subpart MM) and in Section 19 which include the compliance assurance monitoring requirements (CAM).

Permit to Construct No. 069-00001 issued June 24, 2002 is the only underlying permit that has applicable requirements for the No. 2 Lime Kiln. Each of the permit conditions from the underlying permit are quoted in the existing Tier I permit and remain unchanged except that:

- redundant permit conditions have been removed
- the PM emission limitation of 1.0 lb per air dry ton of pulp from IDAPA 58.01.01.822 has been removed from the permit because that standard is not applicable to lime kilns when they are not processing lime mud as part of the kraft chemical recovery process.
- the permit conditions have been renumbered.

EXISTING TIER I PERMIT CONDITIONS THAT ARE REDUNDANT OR REMOVED

<u>Existing Tier I Permit Condition 10.1</u>

Existing Tier I Permit Condition 10.1 limits PM emissions from the No. 2 Lime Kiln to 1.0 lb/ADTP. The authority for this permit condition has been cited to originate from IDAPA 58.01.01.815 & 822 (*Rules for Control of Kraft Pulping Mills*). However, this standard is only applicable to lime kilns used as part of the kraft chemical recovery process, it is not applicable to lime kilns that process only lime rock which is the case for the No. 2 Lime Kiln. This applicability determination is supported by the fact that the §822 PM standard is expressed in terms of air dried pulp, and by the fact that §824 requires continuous monitoring of TRS emissions. Air dried pulp, and TRS emissions at levels that warrant a CEM, are not associated with the No. 2 Lime Kiln as it is currently permitted. It is permitted to process lime rock instead of lime mud from the pulping process. Existing Tier I Permit Condition 10.1 has been removed from the permit.

Existing Tier I Permit Condition 10.3

Existing Tier I Permit Condition 10.3 states that the permittee shall comply with the PM emissions standards of MACT Subpart MM (40 CFR 63.860. The requirements of MACT Subpart MM are now included in Section 5 of the renewed Tier I permit.

Existing Tier I Permit Condition 10.4

Existing Tier I Permit Condition 10.4 limits opacity from the No. 2 Lime Kiln to 20% opacity. This permit condition is redundant with Facility-Wide Permit Condition 1.7 and has been removed from this section of the permit.

Existing Tier I Permit Condition 10.8

Existing Tier I Permit Condition 10.8 includes the residual fuel oil sulfur limit of IDAPA 58.01.01.72, it is redundant with Facility-Wide Permit Condition 1.14.1 and it has been removed.

Existing Tier I Permit Condition 10.13

Existing Tier I Permit Condition 10.13 states that the permittee shall comply with the requirements of MACT Subpart MM (40 CFR 63.860. The requirements of MACT Subpart MM are now included in Section 5 of the renewed Tier I permit.

SUMMARY OF SECTION 11 OF THE RENEWED TIER I PERMIT

Table 8.12 lists each emission standard and operating requirement for the No. 2 Lime Kiln included in Section 11 of the permit. The table also references and/or describes the monitoring requirements that are included in the renewed Tier I permit to assure compliance with each standard or operating requirement. The No. 2 Lime Kiln is also regulated by MACT Subpart MM (Section 5 of the renewed Tier I permit), and in Section 19 of the renewed Tier I permit which includes CAM requirements.

Table 8.12 Applicable Requirements/Compliance Assurance Summary

Permit Condition	Requirement	Requirement Reference	Monitoring and Recordkeeping Requirements	Summary of Compliance Assurance Method
11.1	PM- 0.12 gr/dscf @ 10% O_2	PTC No. 069-0001, 6/24/02	11.2 – 11.7	Operate a scrubber and monitor its operation, Periodic Source Testing. CAM Monitoring Requirements of Section 19 of the permit.

8.12 Lime Handling and Slaking - Permit Section 12.0

Lime is transferred from the lime kilns to regenerate the liquor used in the kraft pulping process. Equipment includes pan conveyors, bucket elevators, feeders and slaker.

Permit to Construct No. 1140-00001 issued September 9, 1988 was the underlying permit in affect at the time of issuance of the draft Tier I permit to public comment. Subsequent to the public comment period Clearwater submitted an application to amend the September 9, 1988 permit. That permit was amended on April 13, 2009 and has been incorporated into the Tier I in place of the September 9, 1988 permit.

Following is a discussion of the underlying permit conditions and how they are now addressed in the renewed Tier I permit.

Permit to Construct No. P- 2009.0020, 4/13/09

The renewed Tier I permit conditions 12.1 through 12.6 are exact quotes from underlying Permit to Construct No. P-2009.0020 issued April 13, 2009.

SUMMARY OF SECTION 12 OF THE RENEWED TIER I PERMIT

Table 8.13 lists each emission standard and operating requirement for the lime handling and slaking systems included in Section 12 of the permit. The table also references and/or describes the monitoring requirements that are included in the renewed Tier I permit to assure compliance with each standard or operating requirement.

Table 8.13 Applicable Requirements/Compliance Assurance Summary

Permit Condition	Requirement	Requirement Reference	Monitoring and Recordkeeping Requirements	Summary of Compliance Assurance Method
12.1 – 12.2	PM/PM_{10}, Emissions limits for Slaker Stack (1.72 lb/hr & 7.53 T/yr)	PTC No. 2009.0020, 4/13/09	12.6	Weekly visible emissions observations are required; maintenance is required if opacity exceeds 10%

8.13 Twelve Batch Digesters, Two Continuous Digesters, Multiple Effect Evaporator System, Turpentine System, and Foul Condensate Collection Tank - Permit Section 13.0

Emissions from the digesters, evaporators, turpentine system and foul condensate collection tank are collected and treated. These gases are also referred to as non-condensable gases. Emissions are either combusted in non-condensable gas (NCG) incinerator or in a lime kiln.

The digesters, evaporators, turpentine system and foul condensate collection tank are affected by several emissions standards:

- All of the systems listed are affected by MACT Subpart S.
- A subset of these systems (No. 9 Batch Digester and the No. 6 multiple affect evaporator) are affected by NSPS Subpart BB.
- Additionally, a permit to construct has been issued for the NCG incinerator which is used to control emissions from all of these systems when they are not sent to a lime kiln to be combusted.

Permit to Construct, No. P-060209, 5/25/07

Permit to Construct No. P-060209 issued May 25, 2007 compiles MACT Subpart S standards, NSPS Subpart BB standards, along with standards established by the Permit to Construct. The permit also includes the requirements of compliance assurance monitoring (40 CFR 64) which have become applicable since Clearwater has opted to discontinue operating a SO_2 continuous emissions monitor. Following is a discussion on how each of these PTC provisions is incorporated into the renewed Tier I Operating Permit.

Existing Tier I permit conditions from the underlying permit to construct for the digesters, evaporators, turpentine system, and foul condensate collection tank are in Section 12, they are now included in Section 13 of the renewed Tier I permit.

Underlying Permit Conditions 2.1 – 2.12

Underlying Permit Conditions 2.1 through 2.12 incorporate MACT Subpart S standards as they apply to the digesters, evaporators, turpentine system and foul condensate collection tank. MACT Subpart S contains standards for many other systems at the pulp mill, rather than have MACT Subpart S standards distributed in several sections of the permit they are all included in Section 17 of the renewed Tier I permit.

Underlying Permit Conditions 2.13 – 2.16

These permit conditions specify that the permittee must comply with the NSPS Subpart BB standards. These NSPS standards are included in the renewed Tier I permit without change from the existing Tier I permit except that they have been renumbered and Permit Condition 2.16 which specifies that when NSPS TRS testing is required the permittee shall use specified methods is not included in the Tier I permit. In accordance with 40 CFR Subpart BB performance testing is not required to determine compliance with TRS standards when the facility has elected to combust gases that subjected to a minimum temperature of 650 °C (1200 °F) for at least 0.5 second which is the method Clearwater is using to achieve compliance.

The language of underlying permit condition 2.16 specifies: In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods in appendix A. When the facility has elected to combust gases at a minimum temperature of 650 °C (1200 °F) for at least 0.5 second the compliance method required by the NSPS is to monitor the combustion temperature at the point of incineration 40 CFR 60.284(b)(1) and testing is not required. The language of the underlying permit is not wrong because it says when "...performing tests required..." by the NSPS the owner shall use reference methods...". Testing is not "required" when a facility uses the combustion option of achieving compliance as is the case for Clearwater. Though the language of the underlying permit is not wrong, it does leave the potential for confusion regarding whether testing is required. For that reason it is not repeated in the Tier I permit..

Underlying Permit Conditions 2.17 – 2.19

These permit conditions include all the requirements of the Rules for the Control of Air Pollution in Idaho that pertain to Kraft Pulping Mills digesters and evaporators. These permit conditions are included in the renewed Tier I without change, except that have been renumbered.

Underlying Permit Conditions 2.20

Permit Condition 2.20 limits sulfur dioxide emissions rates. The emission rate limits are included in the Tier I permit as exact quotes of the underlying permit conditions, except that have been renumbered. Compliance assurance monitoring requirements included in Section 19 of the renewed Tier I permit assure compliance with these limits.

Underlying Permit Conditions 2.21

Permit Condition 2.21 limits opacity to 20%. This permit condition is redundant with renewed Facility-Wide Permit Condition 1.7 and is not repeated in Section 12 of the renewed Tier I permit.

Underlying Permit Conditions 2.22

Underlying permit condition 2.22 requires operating and maintaining a packed bed scrubber in accordance with operating ranges established through the compliance assurance monitoring (CAM) requirements. Renewed Tier I permit Section 19 includes the applicable CAM requirements.

Underlying Permit Conditions 2.23 -2.35

Underlying Permit Conditions 2.23 through 2.35 provided an option for Clearwater to stop operation of the SO_2 CEM that is installed on the packed bed scrubber stack. These permit conditions specified that if this option is exercised then the requirements of compliance assurance monitoring (CAM) would become applicable. Emissions units equipped with a CEM are exempt from CAM, upon ceasing of operation of the CEM the CAM requirements become applicable. Clearwater has exercised this option and has established operating ranges for the packed bed scrubber in accordance with the CAM requirements that are included in Permit to Construct No. P-060209 issued May 27, 2007. All of these CAM requirements are now included in Section 19 of the renewed Tier I permit. Operating ranges for the packed bed scrubber on the NCG incinerator were established through source testing conducted on September 25, 2007. DEQ confirmed the operating ranges in a letter to Clearwater dated February 25, 2008. The scrubbing media flow rate was determined to be 326 gallons per minute 3-hr block average, and the pH was determined to be 9.6 also based a 3-hr block average.

Underlying Permit Condition 2.26.6 specified SO_2 source testing frequencies on the NCG incinerator scrubber stack. If emissions were measured in the initial test to be less than 75% of the emissions limits then emission testing once every five years is required to verify the validity of the operating ranges of the indicators which have been established to assurance of compliance. This initial test was conducted on September 25, 2007. Sulfur dioxide emissions were measured at 39% of the standard; therefore the testing frequency is once every five years. This testing requirement is included in renewed Tier Permit Condition 13.9; it requires testing prior to September 2012 and then additional testing depending on close this test is to the applicable standards. If the SO_2 measured in the most recent performance test is less than or equal to 50% of any respective SO_2 standard listed in Permit Condition 13.7, then the permittee shall conduct periodic performance tests every five calendar years beginning within five calendar years from the most recent test date. If the SO_2 measured in the most recent performance test is greater than 50% and 80% of any respective SO_2 standard listed in Permit Condition 13.7, then the permittee shall conduct periodic performance tests during the third year from the m If the SO_2 measured in the most recent performance test is less than or equal to 50% of any respective SO_2 standard listed in Permit Condition 13.7, then the permittee shall conduct periodic performance tests every five calendar years beginning within five calendar years from the most recent test date. If the SO_2 measured in the most recent performance test is greater than 50% and 80% of any respective SO_2 standard listed in Permit Condition 13.7, then the permittee shall conduct periodic performance tests during the third year from the most recent test date. If the initial test exceeds 80% of the standard, an annual test shall be required. This testing schedule is warranted because: 2007 emission data shows emissions to be well below the standard; in accordance with the existing testing schedule the next test would be required in 2012; and the source is now subject the ongoing compliance assurance monitoring requirements (CAM) that are included in Section 19 of the permit.

Underlying Permit Conditions 2.36

Permit Condition 2.36 required submitting an annual report listing the tons of SO_2 that was emitted for the year. This permit condition became obsolete when Clearwater exercised the option to cease operating the SO_2 CEM; therefore equipment is no longer installed to monitor the annual SO_2 emission

rate. The provisions of CAM are now applicable and Clearwater is required to submit semiannual reports detailing excursions that have occurred.

8.14 Oxygen Delignification - Permit Section 14.0

Pulp is delignified using oxygen in the Oxygen Delignification system. Permit to Construct No. P-2007.0056 issued August 17, 2007 is the only underlying permit that has applicable requirements for the oxygen delignification system. The only emission rate limit included in this permit is for carbon monoxide emissions. Carbon monoxide emissions are uncontrolled. However, the permit does contain monitoring requirements to assure compliance with the emission rate limit. A source test is required to be conducted once every 5 years to determine the amount of carbon monoxide that is emitted per ton of throughput. The permit requires using a carbon monoxide emission factor developed through source testing, and monitored throughput to calculate annual carbon monoxide emission rates. The renewed Tier I permit conditions which originate from this underlying permit remain unchanged except that they have been renumbered.

Hazardous air pollutant emission rates are limited from the oxygen delignification system blow tank in accordance with the MACT Subpart S Clean Condensate Alternative that is included in Section 17 of the renewed Tier I permit. Under the Clean Condensate Alternative methanol emissions from the oxygen delignification blow tank and aerated storage basin combined shall not exceed 519 pounds per day as an annual average.

RENEWED TIER I OPERATING PERMIT SUMMARY

Table 8.14 lists each emission standard and operating requirement for the oxygen delignification system which is included in Section 14 of the permit. The table also references and/or describes the monitoring requirements that are included in the renewed Tier I permit to assure compliance with each standard or operating requirement.

Table 8.14 Applicable Requirements/Compliance Assurance Summary

Permit Condition	Requirement	Requirement Reference	Monitoring and Recordkeeping Requirements	Summary of Compliance Assurance Method
14.1	Carbon Monoxide – 74.5 T/yr	PTC No. 2007.0056, 8/17/08	14.2, 14.3,14.4	Source testing. Develop emissions factor and calculate CO emissions every day
17	Methanol – 519 lb/day (combined emissions from oxygen delig. blow tank and aerated storage basin)	MACT Subpart S	Section 17 of Permit	Source testing and MACT operating parameters for scrubbing media flow rate and scrubbing media temperature. Aerated storage basin sampling.

8.15 Chlorine Dioxide Plant - Permit Section 15.0

Permit to Construct No. 069-00001 issued September 22, 1999 for the Chlorine Dioxide Plant only has state toxic air pollutant emissions limitations. Permit conditions that are solely for regulating state toxic air pollutants are not applicable requirements as defined by IDAPA 58.01.01.008.03. This is because the toxic air pollutant rules are not included in the EPA approved state implementation plan. These permit conditions are included in the Tier I permit but are identified as "State Only" permit conditions in accordance with IDAPA 58.01.01.322.15.k. "State Only" permit condition are those that are not required under the Federal Clean Air Act or under any of its applicable requirements or provisions included in the approved State Implementation Plan (SIP).

Permit Conditions in Section 15 remain unchanged from the previous permit except that they have been renumbered.

8.16 Miscellaneous Source - Permit Section 16.0

Section 16 of the renewed Tier I permit contains the process weight rate PM emission rate limitation of IDAPA 58.01.01.701&702 and the visible emissions standard. These permit conditions remain unchanged from the previous Tier I permit with exception the visible emissions standard and visible emissions compliance demonstration are not included in this Section of the permit. They are included in the Facility-Wide permit conditions and it is not necessary to repeat them in this section.

8.17 Permit Section 17 – Pulp and Paper MACT – Permit Section 17

The purpose of this section of the permit is to incorporate and summarize the applicable requirements of 40 CFR 63 Subpart S (Pulp and Paper MACT). Affected emissions units are the total of all HAP emission points in the pulping and bleaching systems. In addition to the following discussion the Pulp and Paper MACT is also discussed in Section 17.3 of this Statement of Basis.

Standards for the Pulping System Processes - 40 CFR 63.443

Permit Conditions 17.1-17.3 contain the HAP emissions standards for LVHC and HVLC gases from the pulping systems. All of LVHC gases must meet the standards specified in Permit Condition 17.3. Clearwater may choose to treat LVHC gases to meet any one of the 4 available emissions standards. At the time of permit renewal Clearwater indicated that the LVHC gases are treated in a thermal oxidizer to reduce HAP emissions to 20 ppm @ 10% O_2 , the backup system is to route the LVHC gases with the primary fuel into the flame zone of the lime kilns (Permit Condition 17.3(2) and 17.3(4)(i).

Clearwater has chosen to use the Clean Condensate Alternative (permit Conditions 17.5-17.6) for the HVLC gases which allows treating only a portion of the HVLC gases to meet the standards in 17.3. The systems that emit HVLC gases that are treated to meet the standards of Permit Condition 17.3 are listed in Table 17.5 of the permit.

Clean Condensate Alternative - 40 CFR 63.447

Permit Conditions 17.5 and 17.6 Contains the Clean Condensate Alternative (CCA) emissions limits. The CCA alternative is described in detail in Section 7.3 of this statement of basis. The CCA emission limits are give in Table 17.5 of the permit and in Permit Conditions 17.6.1 and 17.6.2.

Standards for the Bleaching System - 40 CFR 63.445

Standards for the bleaching system are included in Permit Conditions 17.7 – 17.10. Clearwater has the option of complying with one of 3 emissions standards listed in Permit Condition 17.9. At the time of permit renewal Clearwater indicated that they are choosing to comply with Permit Condition 17.9(2), which is the 10 ppm chlorinated HAP standard.

Standards for Kraft Pulping Process Condensates - 40 CFR 63.446

Standards for pulping process condensates are included in Permit Conditions 17.11 – 17.16. These standards provide options for determining which condensate streams are collected and treated as well as what standard they must be treated to. At the time of permit renewal Clearwater indicated that they have elected to collect condensate streams so that the total collected is 11.1 lb/TODP (this is combination #3 in Permit Condition 17.12). Permit Condition 17.4 contains the 3 treatment options

that are available; Clearwater has indicated that they will Treat the pulping process condensates to reduce or destroy the total HAPs by at least 92 percent or more by weight; or treat the pulping process condensates to remove 5.1 kilograms or more of total HAP per megagram (10.2 pounds per ton) of ODP.

Standards for Enclosures and Closed-vent Systems – 40 CFR 63.450

Standards for enclosures and closed vent systems are in Permit Condition 17.17.

Monitoring Requirements – 40 CFR 63.453

Permit Conditions 17.18 – 17.28 establish monitoring requirements for continuous monitoring systems, requirements for establishing operating ranges, and requirements for maintaining copies of DEQ approved operating ranges and averaging periods, and describes what constitutes excess emissions. Requirements for monitoring of the operation of enclosures and closed vent systems are included in Permit Condition 17.23. Table 8.15 lists the systems which must have a continuous monitoring system, the operating parameters that are approved to be monitored at the time of permit issuance, and the operating ranges of the parameters. These limits may be changed during the permit term.

Table 8.15 Continuous Monitoring System Parameters and Parameter Limits

System	Parameter(s)	Parameter limit (respectively)[26]
Thermal Oxidizer	Temperature	1,324 F
Chip Bleach System Scrubber	Upper stage Flow rate	175 gpm
	lower stage flow rate	303 gpm
	pH	10.6
	Fan Load	>25%
Sawdust Bleach Sys. Scrubber	Flow rate	289 gpm
	pH	11.1
	Fan Load	> 25%
Open Biological System	Soluble COD loading/total aerator horse power; or Soluble COD concentration/aerator horsepower	159.2 lb-SCODi1/day-HP2; or 0.536 mg-SCODi/liter –HP2[27]
O_2 Delignification Scrubber	Fluid Temperature	<= 82 F
	Flow rate	60 gpm
	Fan Load	> 25 amps

8.18 Paper Coating MACT – Permit Section 18

The sole purpose of Section 18 of the renewed Tier I permit is to incorporate the provisions of the Paper Coating MACT – 40 CFR 63 Subpart JJJJ. The applicability and requirements of this Subpart are discussed in detail in Section 7.3 of this Statement of Basis.

Should there be a conflict between Section 18 of the Tier I permit and 40 CFR 63 Subpart JJJJ, Subpart JJJJ shall govern.

[26] DEQ Maintains a data base of the approved parameter range in the TRIM electronic file management system - AQSSFSF.2008.534.11 CLEARWATER PAPER-IPPD - Potlatch - MACT Test Data and Approved Operating Ranges 4/30/2008, all gallon per minute thresholds are 3-hr block averages.

[27] EPA approval letter from Jeff KenKnight, Federal and Delegated Air Programs Unit, to Frank Radle, Potlatch, September 5, 2002.

8.19 Compliance Assurance Monitoring – Permit Section 19

Section 19 of the renewed Tier I permit includes the requirements of CAM for all emissions units that are affected by this regulation. The applicability and requirements are discussed in detail in Section 7.4 of this Statement of Basis.

9. INSIGNIFICANT ACTIVITIES

Insignificant activities are listed in Table 2-2 of Clearwater's June 19, 2007 Tier I renewal application and is incorporated by reference in Section 20 of the renewed Tier I permit.

10. ALTERNATIVE OPERATING SCENARIOS

The facility did not request any alternative operating scenarios.

11. TRADING SCENARIOS

The facility did not request any trading scenarios.

12. COMPLIANCE SCHEDULE

12.1 Compliance Plan

A compliance plan was not required or submitted with the application for the Tier I renewal.

12.2 Compliance Certification

Clearwater Paper Corporation is required to periodically certify compliance in accordance with General Provision 21. The facility shall submit an annual compliance certification for each emissions unit to DEQ and EPA, in accordance with IDAPA 58.01.01.322.11. The compliance certification report shall address the compliance status of each emissions unit with the terms and conditions of this permit.

13. PERMIT REVIEW

13.1 Regional Review of Draft Permit

DEQ provided the initial draft permit to its Lewiston Regional Office on December 12, 2008. Comments were received by January 7, 2009 and those comments were incorporated into the draft permit that was made available for public comment on January 26, 2009. On June 16, 2009 an updated draft permit was provide to the regional office, manager, and AG office for review. Final comments on the draft permit were received on July 16, 2009.

13.2 Facility Review of Draft Permit

DEQ provided the initial draft permit to Clearwater Paper Corporation for review on January 9, 2009. The facility indicated that comments would be provided on the draft permit during the public comment period.

13.3 Public Comment

As required by IDAPA 58.01.01.364, a public comment period was made available to the public from January 26, 2009 to February 25, 2009. During this time, comments were submitted in response to DEQ's proposed action. A response to public comments document has been crafted by DEQ based on

comments submitted during this public comment period. That document is part of the permit package for the second draft permit that is being made available for public comment. A second comment period is being scheduled because changes have been made to the Tier I permit based on the comments and received during the January 26, 2009 comment period.

13.4 EPA Review

The proposed permit was sent to EPA on December 1, 2009 for their 45 day review in accordance with IDAPA 58.01.01.366.02. On December 11, 2009 EPA informed DEQ that the permit is eligible for issuance.

14. ACID RAIN PERMIT

This facility is not an affected facility as defined in 40 CFR 72 through 75; therefore, acid rain permit requirements do not apply.

Clearwater is under contract with Avista Corporation, the local utility that provides electric service in the Lewiston area. The contract requires that Clearwater purchase the mill's entire electrical need (approximately 104 MW) at tariff rates, which are dictated by the Idaho Public Utilities Commission (IPUC). The contract also includes a provision for the sale of the mill's electrical generation output (approximately 52 MW) at a fixed rate. This sale conforms to the Public Utility Regulatory Policies Act, as an avoided cost sale from a Federal Energy Regulatory Commission Qualified Facility (QF). Notably, Clearwater's interconnection agreement does not allow the export of electricity. The electrical transactions are contractual only. At no time does Clearwater physically export power to the utility power distribution system or grid. As described below, the contract with Avista does not subject the Clearwater mill to the Acid Rain Program.

Two units generate electricity at the Clearwater mill, the No. 4 Power Boiler and No. 5 Recovery Furnace. These units feed a common 1250 psi steam header and two (2) turbine generators (TG), No. 3 TG and No. 4 TG -- rated at 37 MW and 65 MW, respectively. The No. 4 Power Boiler was installed in September 1980 and the No. 5 Recovery Furnace was installed in June 1987.

First, the No. 4 Power Boiler does not qualify as a "utility unit" as that term in defined in 40 CFR 72.2. The No. 4 Power Boiler was in operation during 1985 but did not serve a generator that produced electricity for sale during 1985. As a non-utility unit, the No. 4 Power Boiler is not an affected unit subject to the requirements of the Acid Rain Program [40 CFR 72.6(a)(3) and 72.6(b)(8)].

Second, both the No. 4 Power Boiler and No. 5 Recovery Furnace qualify as "cogeneration units" as that term is defined in 40 CFR 72.2.[1] Clearwater produces steam as needed to energize the mill processes. The No. 3 TG and No. 4 TG are coupled to generators which produce electricity for sale in traditional cogeneration fashion. Normally, if operation of a part of the mill that requires steam is shut down or decreased, then both steam generation and electrical load is reduced.

In accordance with 40 CFR 72.6(b)(4)(i), a cogeneration facility is not an affected unit under the Acid Rain Program if it meets the following criteria:

For a unit that commenced construction on or prior to November 15, 1990, was constructed for the purpose of supplying equal to or less than one-third its potential electrical output capacity or equal to or less than 219,000 MWe-hrs actual electric output on an annual basis to any utility power distribution system for sale (on a gross basis). If the purpose of construction is not known, the Administrator will presume that actual operation from 1985 through 1987 is consistent with such purpose. However, if in

any three calendar year period after November 15, 1990, such unit sells to a utility power distribution system an annual average of more than one-third of its potential electrical output capacity and more than 219,000 MWe-hrs actual electric output (on a gross basis), that unit shall be an affected unit, subject to the requirements of the Acid Rain Program

As described in the letter[28] from EPA's Acid Rain Program Applicability Determinations archive, not all electricity that is sold is automatically considered sales to a utility power distribution system. Rather, electricity used at the host facility or directly sold to another facility for industrial use does not qualify as sales to a "utility power distribution system."

Neither the No. 4 Power Boiler nor the No. 5 Recovery Furnace was constructed for the purpose of supplying more than one third of its potential electrical output capacity to a utility power distribution system for sale, and at no time after November 15, 1990 has Clearwater sold any electrical power to any "utility power distribution system." Although Avista purchases all of the electricity produced by the No. 3 and No. 4 TGs under the contract, all of this electricity is used at the Clearwater mill. None of the electricity generated by Clearwater leaves the mill site and it is not supplied to the electric power distribution system for sale.

Based on the foregoing, both the No.4 Power Boiler and the No. 5 Recovery Furnace qualify as cogeneration units meeting the criteria in 40 CFR 72.6(b)(4)(i). Therefore neither is a utility unit and neither is an affected unit subject to the Acid Rain Program.

15. REGISTRATION FEES

This facility is a major facility as defined by IDAPA 58.01.01.008.10; therefore, registration and registration fees in accordance with IDAPA 58.01.01.387 apply. The facility is in compliance with registration and registration fee requirements.

16. RECOMMENDATION

Based on the Tier I permit application and review of state rules and federal regulation staff recommend that Tier I Operating Permit No. T1-2007.0106 be issued to Clearwater Paper Corporation.

DP/hp Permit No. T1-2007.0106

[28] The EPA letter is included in Appendix F

Appendix A – AIRS Data Entry Form

AIRS/AFS Facility-wide Classification Form

Facility Name: Clearwater Paper Corporation (Formerly Potlatch)

Facility Location: Lewiston

Facility ID: 069-00001 Date: 12/9/08

Project/Permit No.: T1-2007.0106 Completed By: Dan Pitman

☒ Check if there are no changes to the facility-wide classification resulting from this action. (compare to form with last permit)

☐ Yes, this facility is an SM80 source.

Identify the facility's area classification as A (attainment), N (nonattainment), or U (unclassified) for the following pollutants:

	SO2	PM10	VOC
Area Classification:	U	U	U

DO NOT LEAVE ANY BLANK

Check one of the following:

☐ **SIP** [O] - Yes, this facility is subject to SIP requirements. (do not use if facility is Title V)

OR

☒ **Title V** [V] - Yes, this facility is subject to Title V requirements. (If yes, do not also use SIP listed above.)

For SIP or TV, identify the classification (A, SM, B, C, or ND) for the pollutants listed below. Leave box blank if pollutant is not applicable to facility.

	SO2	NOx	CO	PM10	PT (PM)	VOC	THAP
Classification	A	A	A	A	A	A	A

☒ **PSD** [6] - Yes, this facility has a PSD permit

If yes, identify the pollutant(s) listed below that apply to PSD. Leave box blank if pollutant does not apply to PSD.

	SO2	NOx	CO	PM10	PT (PM)	VOC	THAP
Classification	☒	☒	☒	☒	☒	☒	☐

☐ **NSR - NAA** [7] - Yes, this facility is subject to NSR nonattainment area (IDAPA 58.01.01.204) requirements.

Note: As of 9/12/08, Idaho has no facility in this category.

If yes, identify the pollutant(s) listed below that apply to NSR-NAA. Leave box blank if pollutant does not apply to NSR - NAA.

	SO2	NOx	CO	PM10	PT (PM)	VOC	THAP
Classification	☐	☐	☐	☐	☐	☐	☐

☐ **NESHAP** [8] - Yes, this facility is subject to NESHAP (Part 61) requirements. (THAP only)

If yes, what CFR Subpart(s) is applicable?

☒ **NSPS** [9] - Yes, this facility is subject to NSPS (Part 60) requirements.

If yes, what CFR Subpart(s) is applicable? D, Dc, BB

If yes, identify the pollutant(s) regulated by the subpart(s) listed above. Leave box blank if pollutant does not apply to the NSPS.

	SO2	NOx	CO	PM10	PT (PM)	VOC	THAP
Classification	☒	☒	☐	☐	☒	☐	☐

☒ **MACT** [M] - Yes, this facility is subject to MACT (Part 63) requirements. (THAP only)

If yes, what CFR Subpart(s) is applicable? S, MM, JJJJ, ZZZZ

REV. 9/23/2008

Appendix B - EPA PSD Technical Analysis -9/25/84 No. 5 Recovery Furnace

Technical Analysis for
Prevention of Significant Deterioration
Potlatch Corporation - Lewiston, Idaho

September 25, 1984

1.0 INTRODUCTION

Potlatch Corporation proposes to modify its Kraft pulp mill at Lewiston to modernize the production process. The modernization project involves several portions of the mill, including the wood yard, the digesting operations, the screening operations and the chemical recovery area. Much of the modernization will result in the same or lower air pollution emissions than at present. However, the proposed replacement of three old recovery boilers (Numbers 1, 2, and 3) with a new recovery boiler (No. 5) will result in a net emissions increase for several pollutants. A summary of the change in emissions as a result of the boiler replacement is shown in Table 1-1.

As seen in Table 1-1, the net emissions increase for sulfur dioxide (SO_2), nitrogen oxides (NO_x), and carbon monoxide (CO) exceed the respective PSD significant emission rates. Therefore, a PSD review must be made for these three pollutants.

Because the modernization project will extend over several years, the proposed No. 5 recovery boiler will operate in the range of 80 percent of capacity until the entire project is completed. As is discussed in more detail below, the reduced operating rate is a factor in the determination of emission limitations which are representative of best available control technology.

2.0 DETERMINATION OF BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

2.1 DEFINITION

BACT defines an emission limitation based on the maximum degree of reduction achievable through application of process modifications and emission control systems. BACT is determined on a case-by-case basis, taking into account energy, economic, and environmental impacts. BACT emission limitations must not exceed New Source Performance Standards (NSPS) proposed or promulgated under 40 CFR Part 60.

2.2 BACT FOR THE RECOVERY BOILER

The proposed No. 5 recovery boiler will be a "low odor" design without a cascade evaporation in order to minimize total reduced sulfur (TRS) emissions and achieve compliance with the NSPS for TRS. A high efficiency electrostatic precipitator will be installed to control particulate matter to a level of 0.03 gr/dscf, set by the State of Idaho. The other pollutants will be minimized by state-of-the-art boiler design and operational controls. The specific design and operation features and potential alternative controls are discussed below for each pollutant.

Table 1-1

Estimated Emissions from Recovery Boilers

	SO_2	NO_x	CO	PM	TRS
Proposed Boiler Configuration					
#4	0	232	NR	229	26
#5	1957	1405	5357	298	6
TOTAL	1957	1637	5357	527	32
Current Boiler Configuration					
Sum of #1, 2, and 3	434	1169	3134	478	39
#4	0	232	NR	229	6
TOTAL	434	1401	3134	707	45
Net Change	+1523	+236	+2223	-180	-13
PSD Significant Emission Rate	40	40	100	25	10

NR: No Record Available; however, there is no change in the CO emissions from the #4 boiler.

Before examining the specific pollutants, it is important to describe in a general way the interrelationships between the various air pollutants from a recovery boiler. The purpose of the recovery boiler is to recover the inorganic chemicals from the black liquor for reuse in the pulp digesters and to generate steam from the combustion of the organic material in the black liquor. In order to accomplish these objectives, the recovery boiler is designed and operated to maintain a molten bed of inorganic chemicals (smelt) at the bottom of the boiler under reducing conditions; that is, in an oxygen deficient atmosphere. Above the smelt bed is the drying section where the water in the black liquor is evaporated and combustion begins. The higher section of the boiler is maintained in an oxidizing condition to complete combustion of the organic material. Since the primary air pollutants of concern from recovery boilers are particulate matter and TRS, the design and operation of the recovery boiler is oriented to minimize those pollutants. Through rather complex relationships, the emissions of SO_2, NO_x, and CO will vary depending on what is done to minimize particulate matter and TRS.

2.2.1 BACT for SO_2

The recovery of sulfur in the form of sodium sulfide and sodium sulfate is one of the primary objectives of recovery boiler design and operation. Any sulfur that escapes to the atmosphere as TRS, SO_2, or in particulate matter must be replaced by purchased makeup chemicals. Therefore, there is an economic incentive to maximize the recovery of sulfur. Approximately 97 percent of the sulfur is recovered in the recovery system and recycled to the pulping process.

Many variables, such as air distribution, smelt bed temperature, black liquor sulfidity and liquor droplet size in the boiler influence the amount of SO_2 emitted from the recovery boiler. In addition, there are constraints on these variables due to the need to minimize TRS emissions. The company expects that when the boiler is operated at full capacity and optimum adjustment of the above mentioned variables is made, the average emissions of SO_2 will be about the same as from the existing boilers (0 to 100 ppm). However, at the 80 percent operating range neither Potlatch nor the boiler manufacturers have enough experience to predict what the SO_2 emissions will be. The company proposes an SO_2 emission limitation of 200 ppm as being representative of BACT for the proposed No. 5 recovery boiler.

Assuming the SO_2 emissions will actually be 200 ppm, Potlatch made a preliminary evaluation of an alternative SO_2 control system--a wet scrubber. The wet scrubber could use sodium hydroxide as a scrubbing medium to remove 90 percent of the SO_2, and the scrubbing chemicals could be recovered for reuse in the pulping process. A significant quantity of low temperature thermal energy could also be recovered in the wet scrubber. However, in this case, there is no use for this low temperature thermal energy and, therefore, no economic credit from the addition of the scrubber.

A summary of the economic evaluation of the wet scrubber is shown in Table 2-1. The annualized cost per ton of SO_2 removed ranges from \$2370 to \$2960, depending on operating rate. If the SO_2 concentration into the scrubber is less than 200 ppm (as may well be the case), the cost per ton of SO_2 removed would increase. The additional energy requirements for an SO_2 scrubber are estimated to be 750 horsepower electrical demand, 55 million BTU/day steam demand and 500 million BTU/day natural gas demand.

Table 2-1

Economic Evaluation of SO_2 Scrubbing on the No. 5 Recovery Boiler

Estimated Costs	
Capital Cost	$13,800,000
Annualized Cost:	
Capital Recovery	2,763,000
Taxes and Insurance	120,000
Operational Maintenance	2,405,000
Chemical Recovery Credits	(1,113,000)
Net Annualized Cost ($/yr) or $9.15/ton pulp based on the capacity of the No. 5 recovery boiler.	$ 4,175,000

SO_2 Removed (Ton/Yr)	
At full capacity	1763
At 80 percent capacity	1409

Cost Effectiveness ($/Ton SO_2 Removed)	
At full capacity	2370
At 80 percent capacity	2960

There are no NSPS for SO_2 from recovery boilers. A summary of the most recent review of the NSPS for Kraft pulp mills was published in the January 19, 1984, Federal Register. A preliminary analysis of the costs of applying SO_2 scrubbing to recovery boilers showed that the cost effectiveness "may approach $3000 per ton of SO_2 removed. Because of the magnitude of this control cost, no revisions to the NSPS to regulate SO_2 emissions are proposed."

In 1977, a memo summarizing available technology for SO_2 control from recovery boilers was issued by the Office of Air Quality Standards and Planning (EPA-RTP). That memo suggested that 250 ppm SO_2 was an achievable control level based on operational controls. Recent BACT determinations for Kraft recovery boilers listed in the BACT Clearinghouse include SO_2 emission limitations of 230 ppm, 250 ppm, and 300 ppm. By comparison, the proposed SO_2 emission limitation of 200 ppm is lower.

Although the NSPS are developed on a national basis, and BACT for any individual case may be more stringent than the NSPS, EPA Region 10 has determined that SO_2 scrubbing for the No. 5 recovery boiler is not representative of BACT for several reasons. First, the estimated control costs are at the high end of the range typically considered feasible for BACT sources. Second, it is highly probable that the SO_2 emissions will be lower than the 200 ppm guaranteed by the recovery boiler manufacturer for the period of time that it will be operated at 80 percent of capacity. At full capacity, the SO_2 emissions are expected to be considerably less than 200 ppm. Therefore, an SO_2 scrubber would be less cost effective as the inlet SO_2 concentration drops, especially if there is a significant drop in SO_2 emissions when full capacity is achieved in a relatively few years.

For these same reasons, however, EPA Region 10 does not think it is appropriate to set the SO_2 emission limitation at 200 ppm for all time. Therefore, a reassessment of the SO_2 emissions limitation will be made on two occasions: (1) one year after initial startup; and (2) one year after reaching full capacity. Based on the data available for other Kraft recovery boilers, an SO_2 emission limitation of 100 ppm or less should be achievable. Until a final SO_2 emission limitation is determined based on operating experience, an emission limitation of 200 ppm (dry basis at 8 percent O_2) will be in effect and continuous emission monitoring will be required. The mass emission limitation for the No. 5 recovery boiler corresponding to 200 ppm SO_2 is 450 lb/hr.

The only other potential source of SO_2 is the smelt dissolving tank for the No. 5 recovery boiler. Although there is little SO_2 emission data for this source, very low SO_2 emissions are expected because the particulate control device should also remove most of the SO_2 that may be present. Therefore, since the data are limited and the smelt dissolving tank is a relatively small source of SO_2, no SO_2 emission limitation is proposed for this source.

2.2.2 BACT for NO_x

NO_x emissions from Kraft recovery boilers are expected to be relatively low compared to fossil fuel fired boilers for several reasons. One is the relatively high water content of the fuel (black liquor). The other is that the flame is spread over a larger area than a typical oil or coal burner. Both of these factors tend to reduce the maximum combustion temperature in the boiler and thereby the amount of NO_x generated.

Test data from the existing recovery boilers show NO_x emissions in the range of 25 to 250 ppm with the average between 50 and 125 ppm. Potlatch proposes a NO_x emission limitation of 200 ppm with the expectation that lower values will result.

There are no demonstrated control techniques for NO_x from recovery boilers. The operating parameters of the boiler are adjusted on the basis of chemical recovery efficiency, combustion efficiency, and particulate, TRS, and SO_2 emission generation. The level of NO_x emissions is a consequence of these design and operational parameters.

The latest review of the NSPS for Kraft mills stated that no NO_x emission limitation was proposed because no techniques for reducing NO_x emissions have been demonstrated. Therefore, an NO_x emission limitation of 200 ppm (dry basis at 8 percent oxygen) is determined to be representative of BACT. The corresponding mass emission limitation for NO_x is 320 lb/hr. One year after the boiler has operated at full capacity, the NO_x emission limitation may be revised based on stack testing results.

2.2.3 BACT for CO

CO emissions result from incomplete combustion of the organic material in the black liquor. One of the primary ways to minimize CO emissions is to insure the presence of excess oxygen in the boiler. However, too much excess oxygen results in decreased thermal efficiency of the boiler. The excess oxygen level in boilers is controlled by measuring excess oxygen and regulating the air injection rate based on the excess oxygen control signal. Recently, more refined boiler control systems have used a direct measurement of CO to control the combustion air to the boiler.

According to data gathered from the Potlatch No. 4 boiler, which uses a continuous CO monitor to provide a control signal for the boiler fuel/air setting, both the average CO concentration and the range are smaller than for boilers fired on oxygen control (750 ppm compared to 1050 ppm average, and 400-900 ppm compared to 400-4500 ppm). Peak levels at about 1250 ppm have been observed for the No. 4 boiler.

Potlatch proposes to use CO control for the No. 5 recovery boiler. The company expects that the No. 5 recovery boiler will operate in the same CO concentration range as the No. 4 boiler. Therefore, they propose a CO emission limitation of 1250 ppm. EPA Region 10 agrees that firing the recovery boiler using continuous CO control is representative of BACT; however, a slightly lower average CO level should be achievable based on the available data. Therefore, an average CO emission limitation of 900 ppm (dry basis at 8 percent oxygen) is determined to be representative of BACT. The corresponding mass emission limitation is 880 lb/hr.

3.0 AMBIENT AIR QUALITY ANALYSIS

Based on the emission increases described in Section 2, the proposed modification of the Lewiston Mill is subject to air quality review for carbon monoxide (CO), sulfur dioxide (SO_2), and oxides of nitrogen (NO_x). The goal of the air quality review is to demonstrate that the increase in emissions

in combination with other sources in the area will not cause or contribute to a violation of any National Ambient Air Quality Standard (NAAQS) or PSD Increment. If the maximum estimated impacts of the proposed source alone are less than the EPA Level of Significant Ambient Impact for a particular pollutant, then no further air quality analysis is required for that pollutant.

As part of the air quality review, normally one year of recently monitored ambient air quality data are required to assess the maximum impacts of existing air pollution sources in the area of concern. However, the proposed source may be exempt from the ambient monitoring requirement for a particular pollutant if the maximum estimated impact of the proposed source is less than the Significant Monitoring Concentrations for that pollutant. The applicable Significant Monitoring Concentrations are listed in Table 3-1, along with applicable NAAQS, PSD Increments, and Levels of Significant Ambient Impact.

3.1 PROPOSED EMISSION CHARACTERISTICS

The emission characteristics of the proposed No. 5 recovery boiler as modeled for the air quality analysis are listed below:

STACK HEIGHT		106.7 meters
STACK DIAMETER		3.4 meters
EXIT VELOCITY		21.8 meters/second
STACK GAS TEMPERATURE		433.0° Kelvin
EMISSION RATE (grams/second):	SO_2	56.8
	NO_2	40.4
	CO	154.1

Note that all oxides of nitrogen emissions are conservatively assumed to be NO_2 for this analysis. Thus, the maximum impact estimates for NO_2 are biased toward overestimation. Also, the modeling was based on the proposed CO emission rate, while the BACT evaluation in Section 2 has determined that a lower rate is more appropriate. Thus, the maximum CO estimates are also biased toward overestimation.

The emission characteristics of the existing sources at the mill which were considered in the air quality review are listed in Table 2.1 on page 2-2 of the PSD application.

The stack height of the proposed source used in the air quality modeling analysis may not exceed good engineering practice (GEP). Based on the dimensions of buildings nearby the stack, the GEP height for the No. 5 recovery boiler is determined to be 145 meters. Because the proposed stack height is significantly less than the GEP height, the potential for building-wake induced downwash must be considered in the air quality review.

Table 3-1

Applicable Air Quality Standards

Pollutant	Averaging Period	Level of Significant Ambient Impact	Significant Monitoring Concentration	Class II PSD Increment	National Ambient Air Quality Standard
NO_2	Annual	1	14	*	100
CO	1-hour	2000	*	*	40,000
	8-hour	500	575	*	10,000
SO_2	3-hour	25	*	512	1,300
	24-hour	5	13	91	365
	Annual	1	*	20	80

* Has not been established.

3.2 MODEL METHODOLOGY

The Lewiston Pulp Mill is located in complex terrain. It is in the Clearwater River Valley with terrain rising rapidly above plant grade to the north and south of the mill. Because of the nearby elevated terrain, the potential exists for high ground-level concentrations due to impacts of stabilized plumes from the mill.

EPA air quality modeling guidance (EPA-450/4-82-015, Revised October 1983) recognizes the difficulties and uncertainties associated with air quality modeling of complex terrain situations, and no refined complex terrain models are recommended. The guidance does, however, make recommendations for screening techniques which can be used for complex terrain. These screening techniques are intended to be conservative to avoid underprediction of maximum impacts.

The first level screening methodology uses the EPA Valley Model (EPA-450/2-77-018) with assumed worst-case meteorological conditions to predict an upper bound of maximum short-term (24-hour) concentrations. The Valley Model can also be used to estimate long-term (annual) impacts when used with a stability wind rose developed from on-site meteorological measurements. A stability wind rose summarizes the frequency of occurrence of various wind speed, wind direction, and atmospheric stability combinations over a long period of time, usually one year or more.

The second level screening methodology employs the EPA Complex I Model, which is a modification of the MPTER Model (EPA-600/8-80-016). One year of on-site hourly meteorological measurements are required for this screening method, which can produce both short-term and long-term concentration estimates.

For this air quality review, the Valley Model was used for NO_2 and CO, while Complex I was used to estimate maximum SO_2 impacts.

An additional modeling analysis was performed to assess the potential for high ground-level concentrations due to downwash induced by building wake. A screening methodology using the EPA Industrial Source Complex Model (EPA-450/4-79-030), as described in Appendix C of EPA-450/4-82-015, was employed for this analysis.

3.3 MODEL RESULTS

3.3.1 Carbon Monoxide

The increase in CO emissions due to the proposed No. 5 recovery boiler was input to the Valley Model along with the decrease in emissions due to the shutting down of recovery boilers Nos. 1 through 3. In this way, the net changes in air quality levels of CO were determined.

The maximum net increase in 24-hour CO concentrations of 171 micrograms per cubic meter (ug/m^3) was found to occur on the valley wall about four kilometers north-northwest of the mill. This value can be adjusted to a maximum one-hour CO concentration by multiplying by four due to the assumptions inherent in the Valley Model; the result is 684 ug/m^3, which is less

than the one-hour significant ambient impact level of 2000 ug/m^3. The one-hour estimate can be adjusted to an eight-hour value by multiplying by 0.7, as suggested in EPA screening model guidance (EPA-450/4-77-001). The resulting maximum 8-hour CO concentration is 479 ug/m^3, which is less than the 8-hour significant ambient impact level of 500 ug/m^3. Since the projected impacts of the net increase in CO emissions are insignificant, no further air quality analysis is required for CO.

3.3.2 Nitrogen Dioxide

To assess compliance with the annual NAAQS for NO_2, the NO_x emissions of the proposed No. 5 recovery boiler and all of the other sources at the mill were input to the Valley Model. As mentioned earlier, all NO_x emissions were conservatively assumed to be NO_2. Meteorological data from the company's on-site monitoring program were used to develop a stability wind rose for estimation of long-term impacts. The data were judged to adequately represent the transport of the Lewiston mill plumes for screening model purposes.

Maximum annual concentration estimates due to the mill emissions occurred immediately west-southwest of the mill; the highest NO_2 estimate was 15 ug/m^3. An appropriate existing background concentration can be added to this value for comparison of the total with the NAAQS. The company's monitoring program yielded adequate NO_x data from a site north of the mill to provide a measure of the existing background NO_2 concentration. The annual average NO_x concentration (NO_2 for this analysis), measured between December 1979 and December 1980, was 32 ug/m^3. The total concentration estimate is 47 ug/m^3, which is less than the NAAQS of 100 ug/m^3.

3.3.3 Sulfur Dioxide

The estimates of maximum SO_2 concentrations are more critical than the other pollutants due to the restrictiveness of PSD increments for SO_2. Emission estimates for the new recovery boiler, based on the proposed BACT SO_2 emission concentration of 200 ppm, were input to the Complex I model. To determine the net change in air quality, the SO_2 emissions from the existing boilers, which will be shut down as a result of the modification, were also input to the model as decreases.

The requirement for one year of on-site meteorological data was met by the measurements from the company's monitoring program. One year of hourly average measurements of wind speed, wind direction, temperature, and wind direction variability (which yielded stability estimates) formed the Complex I data base. Lacking on-site measurements of mixing heights, seasonally averaged morning and afternoon mixing heights were obtained from an EPA summary report, AP-101.

The model was first run with a coarse grid of receptors to define the likely areas of maximum impact. The model was subsequently run with a finer grid of receptors on the bluff north of the mill to locate the maximum incremental increase in SO_2 concentration.

The model estimates of the maximum net increase in SO_2 concentrations are listed below along with the applicable Class II PSD increments.

Averaging Period	Maximum Model Estimate	Class II PSD Increment
	(ug/m^3)	(ug/m^3)
3-hour	357	512
24-hour	60	91
Annual	6	20

No SO_2 increment violations are indicated by the modeling analysis; however, a significant portion of the available increments may be consumed by the proposed project.

To determine compliance with the NAAQS for SO_2, the above maximum model estimates can be combined with measurements of existing SO_2 concentrations. For screening purposes, the maximum measured SO_2 levels for each averaging period are added to the maximum model incremental increases in the table below:

Averaging Period	Maximum Measured SO_2 Concentration	Estimated Total SO_2 Impact	NAAQS
	(ug/m^3)	(ug/m^3)	(ug/m^3)
3-hour	110	467	1300
24-hour	26	86	365
Annual	3	9	80

This approach may produce overestimates of total SO_2 impact since the maximum impact from the new recovery boiler may not necessarily occur at the same time and location as the maximum measured concentration from existing sources. However, this approach recognizes the fact that a limited number of monitors in the SO_2 monitoring network and limited duration of the monitoring program may not have been adequate to measure the maximum ambient concentrations due to emissions from existing sources.

3.3.4 Downwash Analysis

The maximum ground-level concentrations resulting from the downwash screening analysis were less than the maximum impacts from the complex terrain modeling analysis. Thus, the fact that the proposed stack will be lower than the GEP height will not result in unacceptable impacts, and the Complex I results become constraining in terms of compliance with ambient standards and increments.

3.4 OTHER IMPACTS

As part of the air quality review, the impacts of the proposed increase in emissions on visibility, soils and vegetation, and Class I areas must be

considered. Also, impacts of increases in emissions from growth (residential, commercial, or other industrial) due to the proposed mill modification must be considered.

With a net reduction in emissions of particulate matter, the proposed project should result in reduced impairment to visibility in the Clearwater River Valley. The nearest Class I area is the Hells Canyon National Wilderness Area, about 110 km south of the mill. Because of the large intervening distance, no significant visibility impairment or degradation in air quality is expected in the Class I areas due to the increase in mill emissions.

The projected maximum impacts of the mill emissions are low enough that effects on soils or vegetation of significant recreational or commercial value are expected to be negligible. No significant growth in the area is expected to result from the mill modification, and associated impacts on air quality levels will also be negligible.

4.0 FINDINGS AND RECOMMENDATIONS

The results of the ambient air quality analysis demonstrate that the increases in emissions due to the addition of the proposed No. 5 recovery boiler to the Lewiston Mill will not cause or contribute to a violation of any National Ambient Air Quality Standard or PSD Increment.

4.1 EMISSION LIMITATIONS

The maximum allowable emissions based on BACT are summarized in Table 4-1. In addition, the SO_2 emission limitations shall be reevaluated based on actual operating experience one year after startup of the No. 5 recovery boiler and again one year after the No. 5 recovery boiler achieves operation at full capacity (4,000,000 lb/day or greater of black liquor solids). The NO_x emission limitation shall be reevaluated one year after the No. 5 recovery boiler achieves operation at full capacity (4,000,000 lb/day or greater of black liquor solids).

4.2 COMPLIANCE DETERMINATION

Compliance with the emission limitations shall be demonstrated by the Company conducting source tests and a program of emissions monitoring as described below:

1. Compliance Testing - Compliance testing shall be conducted within 60 days after achieving the normal production rate at which the No. 5 recovery boiler will be operated, but not later than 180 days after startup of the boiler. EPA Method 6 shall be used for SO_2 and EPA Method 10 for CO. EPA Method 7 or Method 20 shall be used for NO_x. The company shall submit a test plan to EPA for approval prior to testing.

2. Compliance Monitoring - A continuous monitoring system shall be installed to monitor CO and SO_2. These monitors shall comply with the specification requirements in Appendix B of 40 CFR Part 60.

Table 4-1

Emission Limitations for the No. 5 Recovery Boiler

Pollutant[1]	Performance Emission Limitation (ppm)[2]	Mass Emission Limitation (lb/hr)	(tons/yr)
SO_2	200	450	1960
CO	900	880	3850
NO_x	200	320	1400

1 SO_2 and NO_x will be reevaluated based on actual operating experience.

2 The concentration limitations are on a dry basis at 8 percent oxygen. The SO_2 and CO concentration and hourly mass emission limitations represent the average over each 24-hour day. The NO_x value represents the average value determined by EPA Method 7.

Appendix C - EPA Approved 40 CFR 63, Subpart MM Approved Monitoring Alternative

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FILE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

APR 1 3 2007

Reply to
Attn Of: AWT-107

Steven Waldher, Sr. Engineer
Potlatch Forest Products Corporation
Idaho Pulp & Paperboard Division
P.O. Box 1126
Lewiston, Idaho 83501

Re: Request for Alternative Monitoring Parameter for Daily Compliance required under 40 CFR §63.864(e), MACT Subpart MM

Dear Mr. Walhder:

This letter is in response to your letter dated October 23, 2006, amending a previous request approved by the US Environmental Protection Agency (EPA) that allowed the use of fan amps as an alternative monitoring parameter for daily compliance monitoring. In that letter, you clarified that the earlier information you had given us should have been evaluated as percent load to the fan motor instead of fan amps. You asked that we amend our previous approval to use 55 fan amps to use 55 percent load to the fan motor as the ongoing compliance provision specified in §63.864(k)(2)(iii). After reviewing the data you submitted, EPA approves your request to use percent load to the fan motor as an alternative monitoring parameter to measuring pressure drop across the scrubber. Our rationale for approving your request follows.

Subpart MM requires that smelt dissolving tanks equipped with a wet scrubber to have a continuous parameter monitoring system (CPMS) that can be used to determine and record the pressure drop across the scrubber and the scrubbing liquid flow rate at least once every successive 15-minute period [40 CFR §63.864(e)(10)]. In a letter to Potlatch dated June 22, 2005, EPA granted approval to use fan RPM as an alternative monitoring parameter instead of pressure drop across the scrubber because fan RPM is a more appropriate monitoring parameter for the specific type of scrubber used by Potlatch.

In letters dated February 13, and June 5, 2006, Potlatch proposed to use fan motor amperage (amps) rather than fan RPM based on several facts and data that were not included in the original request. In April 2006, EPA approved use of fan amps as an alternate monitoring parameter with a minimum acceptable amp value of 55 amps. In the October 23, 2006, letter Potlatch explained that the units of the data submitted to support use of fan amps was not amps but % load to the fan motor. You also confirmed that percent load to the fan is essentially the same as fan amps normalized to a percentage of maximum load to the fan motor. Therefore, the analysis of the data used to reach the approval of fan amps greater than 55 amps is still valid. The only change that needs to be made is to change the units of the value. Therefore, the acceptable parameter range is greater than 55 percent of load to the fan motor.

Based on the information summarized above, EPA approves the Potlatch request to use percent load to the fan motor as an alternative monitoring parameter to pressure drop across the scrubber. The minimum load (the acceptable operating range would be greater than or equal to 55% load to the fan motor) should be 55 percent of load to the fan motor. Any 3-hour average value for the fan motor amperage less than 55 percent load to the fan motor would count toward the on-going compliance provision specified in 40 CFR § 63.864.(k)(2)(iii). If you have any questions, please contact Madonna Narvaez at 206-553-2117, or electronically at narvaez.madonna@epa.gov.

Sincerely,

Nancy Helm, Manager
Federal and Delegated Air Programs Unit

cc: Clayton Steele, Lewiston IDEQ

Appendix D – Clearwater CAM Plan – February 25, 2009

Compliance Assurance Monitoring (CAM) Plan for
No. 4 Recovery Furnace PM Emissions

A. Background

1. Emission Unit

Source:	IPPD Lewiston Facility; Lewiston, ID
Identification:	Emission Point ID: 189 - No. 4 Recovery Furnace
Control Technology:	Electrostatic Precipitator (ESP)
Description:	Babcock & Wilcox kraft recovery furnace firing black liquor solids (BLS), installed in1972

2. Applicable Regulations, Emission Limits:

Particulate matter (PM):

1) PTO 1140-0001:	0.040 gr/dscf corrected to 8% O_2
2) PTO 1140-0001:	2 lb/ADTP
3) MACT MM	0.044 gr/dscf corrected to 8% O_2 [exempt from CAM pursuant to 40 CFR 64.2(b)(1)(i)]

Monitoring Requirements:
Periodic PM source testing
Continuous opacity monitoring system (COMS)

B. Monitoring Approach

The key elements of the proposed monitoring approach for PM emissions from the No. 4 Recovery Furnace, including indicators to be monitored, indicator ranges, and performance criteria are presented in Table 1. The CAM performance indicator is opacity of the ESP exhaust. The CAM monitoring approach involves the use of the existing COMS and monitoring required for PM (surrogate for HAP metals) under 40 CFR 63 Subpart MM. In accordance with 40 CFR 64.3(d)(iii), the COMS meets the general design criteria in 40 CFR 64.3(a) and 64.3(b).

Table 1. Monitoring Approach

Regulatory Citation	Requirement	Proposal
§64.4(a)(1)	Indicator	Opacity of ESP exhaust.
	Measurement Approach	COMS in ESP exhaust as required by 40 CFR 63.864(d).
§64.4(a)(2)	Indicator Range	Excursion defined as opacity > 20% (average of 10 consecutive 6-minute averages). Excursions trigger corrective action in accordance with SSM plan.

Regulatory Citation	Requirement	Proposal
§64.3(b)(1)	Data Representativeness	Install the COMS at a representative location in the ESP exhaust per 40 CFR 63.8(c)(2) and 40 CFR 60, Appendix B – Performance Specification 1 (PS-1).
§64.3(b)(2)	Verification of Operational Status	As required by 63.8(c)(3). A log of opacity readings will be kept onsite and made available for inspection.
§64.3(b)(3)	QA/QC Practices and Criteria	In accordance with 40 CFR 63.8(c) and 63.8(d).
§64.3(b)(4)	Monitoring Frequency	As specified in 40 CFR 63.8(c)(4)(i): Minimum of 1 cycle of sampling and analyzing every 10-second period and one cycle of data recording every 6-minute period.
§64.3(b)(4)(i) §64.3(b)(4)(ii)	Data Collection Procedures	6-minute and average opacity values recorded by PI.
	Averaging Period	60 minutes (average of 10 consecutive 6-minute averages), consistent with monitoring requirements in 40 CFR 63 Subpart MM [40 CFR 63.864(k)(1)(i)].

C. Monitoring Approach Justification

Rationale for Selection of Opacity Performance Indicator

The No. 4 Recovery Furnace is subject to National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft Pulp Mills (40 CFR 63 Subpart MM). The applicable standard for PM (surrogate for HAP metals) is 0.044 gr/dscf corrected to 8 % O_2, and the use of a COMS is required for compliance demonstration. In accordance with 40 CFR 64.3(d), the COMS required by the MACT standard must be used to satisfy the requirements of CAM.

40 CFR 63 Subpart MM was proposed after November 15, 1990 pursuant to Section 112 of the CAA and is therefore exempt from CAM in accordance with 40 CFR 64.2(b)(1)(i). However, as provided by 40 CFR 64.4(b)(2) and 64.4(b)(4), the continuous opacity monitoring required under the MACT constitutes presumptively acceptable monitoring for the CAM-applicable PM limitations. No further justification is required for presumptively acceptable monitoring.

Rationale for Selection of Indicator Range

The applicable PM emission standards/limitations were reviewed to determine the most stringent and thereby constraining requirement(s). Using industry standard conversion factors, the 2 lb/ADTP limit equates to approximately 0.048 gr/dscf at 8 % O_2, which is less stringent

than the other applicable limits. The 0.040 gr/dscf at 8 % O_2 PTO limit is slightly more stringent than the MACT standard (0.044 gr/dscf at 8 % O_2). However, the limits are nearly identical and were therefore considered equivalent for the purpose of CAM. These limitations were determined to be the constraining for the purpose of CAM indicator range selection.

The opacity indicator ranges proposed in this CAM plan are directly consistent with those prescribed in 40 CFR 63 Subpart MM. The CAM-applicable PM limitations are either nearly identical or less stringent than the MACT standard. Therefore, it can be concluded that the MACT monitoring approach and indicator range will provide a reasonable assurance of compliance with all applicable PM limitations identified in Section 2 of this plan. To further support the proposed indicator range, Clearwater evaluated recent No. 4 Recovery Furnace performance test data, including PM and opacity measurements. These data are summarized in Figure 1.

As shown in Figure 1, there is no reliable statistical correlation between opacity and PM emissions. However, that data do show that at an opacity range up to 46% of the proposed indicator range (9.2% opacity), maximum PM emissions are only 29% of the constraining PM limitation. PM emissions from ESP controlled recovery furnaces are comprised of mostly very small particles, less than 2.5 microns.[1] These small particles create higher opacity levels than do emissions of larger particles for the same mass concentration levels. Based on this fact and the available test data, it can be concluded that opacity at PM emission rates equal to or greater than the applicable limits would likely be above the proposed 20% indicator range. Therefore, the proposed indicator range, consistent with MACT Subpart MM requirements, will provide a reasonable assurance of compliance with all applicable PM limitations on the No. 4 Recovery Furnace.

As required by 40 CFR 64.4(c)(1), Potlatch has submitted the results of initial performance testing required under 40 CFR 63 Subpart MM for the No. 4 Recovery Furnace and ESP control device.[2] No changes to the No. 4 Recovery Furnace and associated ESP have taken place that could result in a significant change in the control system performance or the selected opacity indicator range to be monitored since the initial performance test was conducted.

[1] See NCASI Technical Bulletin 884, Table 4.12, p. 12. August, 2004. Mean PM2.5 emission factor = 51% of TPM.

[2] No. 4 Recovery Furnace compliance testing conducted August 11, 2004. Test Report dated September 28, 2004. IDEQ performance test approval letter dated March 7, 2005.

4 RECOVERY FURNACE SOURCE TEST vs. OPACITY						
4 Recovery Furnace	**Units**	**Run 1**	**Run 2**	**Run 3**	**Average**	**% of limit**
Test Date: 8/11/04						
Start Time		9:45	11:30	13:22		
End Time		11:00	12:44	14:41		
Sampling Time	minutes	60	60	60	60	
PM - Front Half	gr/dscf	0.014	0.014	0.012	0.013	
Front Half Conc. @ 8 % O2	gr/dscf	0.01	0.01	0.009	0.01	25%
PM Permit Limit @ 8% O2	gr/dscf	-	-	-	0.040	
Front Half Emissions Rate	lb/hr	10.6	10.2	9.28	10	
Front Half Production Based Rate	lb/T ADP	0.612	0.581	0.529	0.574	29%
Permit Limit - Production Based Rate	lb/T ADP	-	-	-	2	
Opacity (PI Tag = AI2114.PV)	**%**	**4.7**	**6.3**	**7.3**	**6.1**	

4 Recovery Furnace	**Units**	**Run 1**	**Run 2**	**Run 3**	**Average**	**% of limit**
Test Date: 3/13/03						
Start Time		11:45	17:18	19:14		
End Time		16:28	18:34	20:30		
Sampling Time	minutes	60	60	60	60	
PM - Front Half	gr/dscf	0.012	0.014	0.013	0.013	
Front Half Conc. @ 8 % O2	gr/dscf	0.01	0.012	0.011	0.011	28%
PM Permit Limit @ 8% O2	gr/dscf	-	-	-	0.040	
Front Half Emissions Rate	lb/hr	8.3	9.4	8.9	8.9	
Front Half Production Based Rate	lb/T ADP	0.44	0.5	0.47	0.47	24%
Permit Limit - Production Based Rate	lb/T ADP	-	-	-	2	
Opacity (PI Tag = AI2114.PV)	**%**	**8.0**	**9.2**	**9.0**	**8.7**	

lb/hr	%
10.6	**4.7**
10.2	**6.3**
9.28	**7.3**
8.3	**8.0**
9.4	**9.2**
8.9	**9.0**

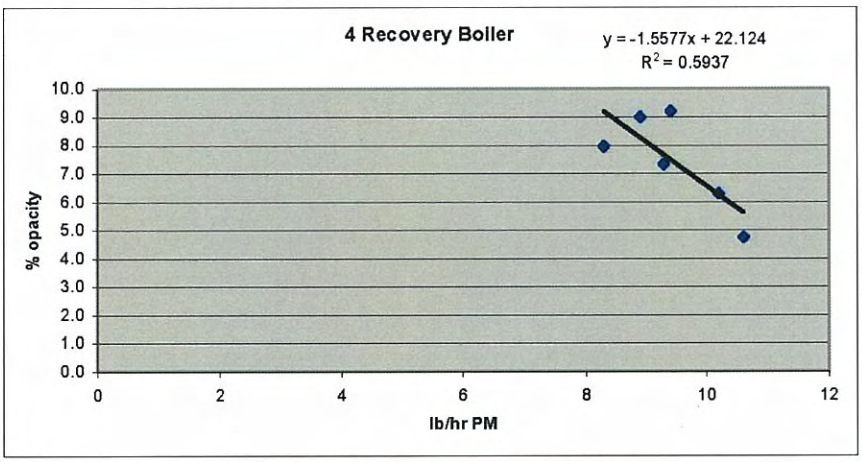

Figure 1. No. 4 Recovery Furnace Test Data

Compliance Assurance Monitoring (CAM) Plan for
No. 5 Recovery Furnace PM Emissions

A. Background

1. Emission Unit

Source:	IPPD Lewiston Facility; Lewiston, ID
Identification:	Emission Point ID: 721 - No. 5 Recovery Furnace
Control Technology:	Electrostatic Precipitator (ESP)
Description:	Gotaverken Energy Systems kraft recovery furnace firing black liquor solids (BLS) and natural gas, installed in 1987

2. Applicable Regulations. Emission Limits:

Particulate matter (PM):

1) 5/6/83 PTC:	58 lb/hr
2) 5/6/83 PTC:	0.03 gr/dscf
2) NSPS BB:	0.044 gr/dscf corrected to 8% O_2
3) MACT MM	0.044 gr/dscf corrected to 8% O_2 [exempt from CAM pursuant to 40 CFR 64.2(b)(1)(i)]

Monitoring Requirements:
Periodic PM source testing
Continuous opacity monitoring system (COMS)

B. Monitoring Approach

The key elements of the proposed monitoring approach for PM emissions from the No. 5 Recovery Furnace, including indicators to be monitored, indicator ranges, and performance criteria are presented in Table 1. The CAM performance indicator is opacity of the ESP exhaust. The CAM monitoring approach involves the use of the existing COMS and monitoring required for PM (surrogate for HAP metals) under 40 CFR 63 Subpart MM. In accordance with 40 CFR 64.3(d)(iii), the COMS meets the general design criteria in 40 CFR 64.3(a) and 64.3(b).

Table 2. Monitoring Approach

Regulatory Citation	Requirement	Proposal
§64.4(a)(1)	Indicator	Opacity of ESP exhaust.
	Measurement Approach	COMS in ESP exhaust as required by 40 CFR 63.864(d).

Regulatory Citation	Requirement	Proposal
§64.4(a)(2)	Indicator Range	Excursion defined as opacity > 20% (average of 10 consecutive 6-minute averages). Excursions trigger corrective action in accordance with SSM plan.
§64.3(b)(1)	Data Representativeness	Install the COMS at a representative location in the ESP exhaust per 40 CFR 63.8(c)(2) and 40 CFR 60, Appendix B – Performance Specification 1 (PS-1).
§64.3(b)(2)	Verification of Operational Status	As required by 63.8(c)(3). A log of opacity readings will be kept onsite and made available for inspection.
§64.3(b)(3)	QA/QC Practices and Criteria	In accordance with 40 CFR 63.8(c) and 63.8(d).
§64.3(b)(4)	Monitoring Frequency	As specified in 40 CFR 63.8(c)(4)(i): Minimum of 1 cycle of sampling and analyzing every 10-second period and one cycle of data recording every 6-minute period.
§64.3(b)(4)(i) §64.3(b)(4)(ii)	Data Collection Procedures	6-minute and average opacity values recorded by PI.
	Averaging Period	60 minutes (average of 10 consecutive 6-minute averages), consistent with monitoring requirements in 40 CFR 63 Subpart MM [40 CFR 63.864(k)(1)(i)].

C. Monitoring Approach Justification

Rationale for Selection of Opacity Performance Indicator

The No. 5 Recovery Furnace is subject to National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft Pulp Mills (40 CFR 63 Subpart MM). The applicable standard for PM (surrogate for HAP metals) is 0.044 gr/dscf corrected to 8 % O_2, and the use of a COMS is required for compliance demonstration. In accordance with 40 CFR 64.3(d), the COMS required by the MACT standard must be used to satisfy the requirements of CAM.

40 CFR 63 Subpart MM was proposed after November 15, 1990 pursuant to Section 112 of the CAA and is therefore exempt from CAM in accordance with 40 CFR 64.2(b)(1)(i). However, as provided by 40 CFR 64.4(b)(2) and 64.4(b)(4), the continuous opacity monitoring required under the MACT constitutes presumptively acceptable monitoring for the CAM-applicable PM limitations. No further justification is required for presumptively acceptable monitoring.

Rationale for Selection of Indicator Range

The applicable PM emission standards/limitations were reviewed to determine the most stringent and thereby constraining requirement(s). Although not corrected to a standard O_2 concentration, the 0.03 gr/dscf limit can be assumed to be more stringent than the NSPS limit of 0.044 gr/dscf at 8 % O_2 under realistic operating conditions. Based on flow rate during the August 13, 2004 initial performance test conducted for 40 CFR 63 Subpart MM, 0.03 gr/dscf equates to 47.4 lb/hr at or near the maximum production rate, which is more stringent than the applicable 58 lb/hr limitation. Using standard industry conversion factors, 4 lb/ADTP equates to approximately 0.097 gr/dscf at 8 % O_2. Therefore, the IDAPA 58.01.01.821 limit is effectively subsumed by the more stringent PTC limit. The May 5, 1983 PTC limit of 0.03 gr/dscf was determined to be constraining for the purpose of CAM indicator range selection.

The opacity indicator ranges proposed in this CAM plan are directly consistent with those prescribed in 40 CFR 63 Subpart MM. Although the 0.03 gr/dscf PTC limit is more stringent than the MACT limit for existing sources, it is considerably less stringent than the MACT limit for new sources (0.015 gr/dscf at 8 % O_2). 40 CFR 63 Subpart MM specifies the same 20 % opacity threshold for corrective action for both existing and new kraft recovery furnaces [see 40 CFR 63.864(k)(1)(i)]. Based on this it can be concluded that that the MACT corrective action trigger of 20 % opacity (average of 10 consecutive 6-minute averages) provides a reasonable assurance of compliance with the PM standard for new kraft recovery furnaces, which is more stringent than the applicable PTC limit. Therefore, the MACT monitoring approach and indicator ranges will provide a reasonable assurance of compliance with all applicable PM limitations identified in Section 2 of this plan. To further support the proposed indicator range, Clearwater evaluated recent No. 5 Recovery Furnace performance test data, including PM and opacity measurements. These data are summarized in Figure 2.

As shown in Figure 2, there is no reliable statistical correlation between opacity and PM emissions. However, that data do show that at an opacity range up to 40% of the proposed indicator range (8.1% opacity), maximum PM emissions are only 33% of the constraining PM limitation. PM emissions from ESP controlled recovery furnaces are comprised of mostly very small particles, less than 2.5 microns.[3] These small particles create higher opacity levels than do emissions of larger particles for the same mass concentration levels. Based on this fact and the available test data, it can be concluded that opacity at PM emission rates equal to or greater than the applicable limits would likely be above the proposed 20% indicator range. Therefore, the proposed indicator range, consistent with MACT Subpart MM requirements, will provide a reasonable assurance of compliance with all applicable PM limitations on the No. 5 Recovery Furnace.

As required by 40 CFR 64.4(c)(1), Potlatch has submitted the results of initial performance testing required under 40 CFR 63 Subpart MM for the No. 5 Recovery Furnace and ESP control device.[4] No changes to the No. 5 Recovery Furnace and associated ESP have taken

[3] See NCASI Technical Bulletin 884, Table 4.12, p. 12. August, 2004. Mean PM2.5 emission factor = 51% of TPM.

[4] No. 5 Recovery Furnace compliance testing conducted August 13, 2004. Test Report dated September 28, 2004. IDEQ performance test approval letter dated February 25, 2005.

place that could result in a significant change in the control system performance or the selected opacity indicator range to be monitored since the initial performance test was conducted.

5 RECOVERY FURNACE SOURCE TEST vs. OPACITY						
5 Recovery Furnace	**Units**	**Run 1**	**Run 2**	**Run 3**	**Average**	**% of limit**
Test Date: 8/13/04						
Start Time		8:30	9:47	11:08		
End Time		9:36	10:55	12:16		
Sampling Time	minutes	60	60	60	60	
PM - Front Half	gr/dscf	0.005	0.006	0.005	0.005	17%
PM - Permit Limit		-	-	-	0.03	
Front Half Conc. @ 8 % O2	gr/dscf	0.003	0.004	0.004	0.004	9%
Permit Limit - Conc. @ 8% O2	gr/dscf	-	-	-	0.044	
Front Half Emissions Rate	lb/hr	7.95	9.44	8.3	8.56	15%
Permit Limit - Production Based Rate	lb/hr	-	-	-	58	
Front Half Production Based Rate	lb/T ADP	0.153	0.182	0.16	0.165	4%
Permit Limit - Production Based Rate	lb/T ADP	-	-	-	4	
Opacity (PI Tag = AI1414a.PV)	**%**	**7.9**	**8.1**	**7.1**	**7.7**	
5 Recovery Furnace	**Units**	**Run 1**	**Run 2**	**Run 3**	**Average**	**% of limit**
Test Date: 6/10/03						
Start Time		10:07	12:55	14:48		
End Time		11:29	14:19	16:02		
Sampling Time	minutes	60	60	60	60	
PM - Front Half	gr/dscf	0.014	0.0071	0.0089	0.01	33%
PM - Permit Limit		-	-	-	0.03	
Front Half Conc. @ 8 % O2	gr/dscf	0.011	0.0054	0.0066	0.0075	17%
Permit Limit - Conc. @ 8% O2	gr/dscf	-	-	-	0.044	
Front Half Emissions Rate	lb/hr	21.5	11.3	13	15.2	26%
Permit Limit - Production Based Rate	lb/hr	-	-	-	58	
Front Half Production Based Rate	lb/T ADP	0.37	0.19	0.22	0.26	7%
Permit Limit - Production Based Rate	lb/T ADP	-	-	-	4	
Opacity (PI Tag = AI1414a.PV)	**%**	**6.0**	**4.9**	**3.9**	**4.9**	

lb hr	opacity %
7.95	7.9
9.44	8.1
8.3	7.1
21.5	6.0
11.3	4.9
13	3.9

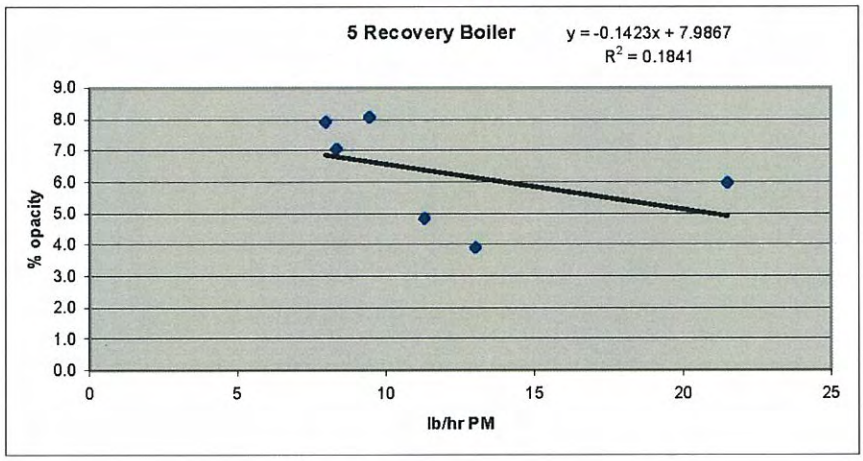

Figure 2. No. 5 Recovery Furnace Test Data

Compliance Assurance Monitoring (CAM) Plan for
No. 3 Lime Kiln PM and PM-10 Emissions

A. Background

1. Emission Unit

Source:	IPPD Lewiston Facility; Lewiston, ID
Identification:	Emission Point ID: 511 - No. 3 Lime Kiln
Control Technology:	Electrostatic Precipitator (ESP)
Description:	Allis Chalmers Lime Kiln firing natural gas or fuel oil, installed in 1974

2. Applicable Regulations, Emission Limits:

Particulate matter (PM):

1) PTC 069-00001:	5.2 lb/hr
2) PTC 069-00001:	27 tons/yr (combined emissions from Nos. 3 & 4 Lime Kilns) [exempt from CAM pursuant to 40 CFR 64.2(b)(1)(v)]
3) MACT MM:	0.064 gr/dscf corrected to 10% O_2 [exempt from CAM pursuant to 40 CFR 64.2(b)(1)(i)]
4) IDAPA 822:	1 lb/ADTP

Particulate matter (PM-10):

1) PTC 069-00001:	5.2 lb/hr
2) PTC 069-00001:	17.3 tons/yr (combined emissions from Nos. 3 & 4 Lime Kilns) [exempt from CAM pursuant to 40 CFR 64.2(b)(1)(v)]

Monitoring Requirements:
Periodic PM source testing
Continuous opacity monitoring system (COMS)

B. Monitoring Approach

The key elements of the proposed monitoring approach for PM emissions from the No. 3 Lime Kiln, including indicators to be monitored, indicator ranges, and performance criteria are presented in Table 1. The CAM performance indicator is opacity of the ESP exhaust. The CAM monitoring approach involves the use of the existing COMS and monitoring required for PM (surrogate for HAP metals) under 40 CFR 63 Subpart MM. In accordance with 40 CFR 64.3(d)(iii), the COMS meets the general design criteria in 40 CFR 64.3(a) and 64.3(b).

Table 3. Monitoring Approach

Regulatory Citation	Requirement	Proposal
§64.4(a)(1)	Indicator	Opacity of ESP exhaust.
	Measurement Approach	COMS in ESP exhaust as required by 40 CFR 63.864(d).

Regulatory Citation	Requirement	Proposal
§64.4(a)(2)	Indicator Range	Excursion defined as opacity > 20% (average of 10 consecutive 6-minute averages). Excursions trigger corrective action in accordance with SSM plan.
§64.3(b)(1)	Data Representativeness	Install the COMS at a representative location in the ESP exhaust per 40 CFR 63.8(c)(2) and 40 CFR 60, Appendix B – Performance Specification 1 (PS-1).
§64.3(b)(2)	Verification of Operational Status	As required by 63.8(c)(3). A log of opacity readings will be kept onsite and made available for inspection.
§64.3(b)(3)	QA/QC Practices and Criteria	In accordance with 40 CFR 63.8(c) and 63.8(d).
§64.3(b)(4)	Monitoring Frequency	As specified in 40 CFR 63.8(c)(4)(i): Minimum of 1 cycle of sampling and analyzing every 10-second period and one cycle of data recording every 6-minute period.
§64.3(b)(4)(i) §64.3(b)(4)(ii)	Data Collection Procedures	6-minute and average opacity values recorded by PI.
	Averaging Period	60 minutes (average of 10 consecutive 6-minute averages), consistent with monitoring requirements in 40 CFR 63 Subpart MM [40 CFR 63.864(k)(1)(i)].

C. Monitoring Approach Justification

Rationale for Selection of Opacity Performance Indicator

The No. 3 Lime Kiln is subject to National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft Pulp Mills (40 CFR 63 Subpart MM). The applicable standard for PM (surrogate for HAP metals) is 0.064 gr/dscf corrected to 10 % O_2, and the use of a COMS is required for compliance demonstration. In accordance with 40 CFR 64.3(d), the COMS required by the MACT standard must be used to satisfy the requirements of CAM.

40 CFR 63 Subpart MM was proposed after November 15, 1990 pursuant to Section 112 of the CAA and is therefore exempt from CAM in accordance with 40 CFR 64.2(b)(1)(i). However, as provided by 40 CFR 64.4(b)(2) and 64.4(b)(4), the continuous opacity monitoring required under the MACT constitutes presumptively acceptable monitoring for the CAM-applicable PM limitations. No further justification is required for presumptively acceptable monitoring.

Rationale for Selection of Indicator Range

The applicable PM emission standards/limitations were reviewed to determine the most stringent and thereby constraining requirement(s). Using standard industry conversion factors, the applicable MACT limit of 0.064 gr/dscf at 10 % O_2 equates to approximately 0.32 lb/ADTP and 12.2 lb/hr at the maximum permitted production rate. Therefore, the lb/hr PTC limits are more stringent than the MACT limit, and the IDAPA limit is least stringent. The ton per year PTC limits applicable to combined emissions from the Nos. 3 and 4 Lime Kilns qualify as emissions caps and are therefore exempt from CAM pursuant to 40 CFR 64.2(b)(1)(v). The 5.2 lb/hr PM and PM-10 limits were determined to be constraining for the purpose of CAM indicator range selection.

The opacity indicator ranges proposed in this CAM plan are directly consistent with those prescribed in 40 CFR 63 Subpart MM. Although the 5.2 lb/hr PM limit is more stringent than the existing source MACT limit of 0.064 gr/dscf at 10 % O_2 (at or near maximum production rates), it is less stringent that the new source MACT limit of 0.010 gr/dscf at 10 % O_2. Again using standard industry conversion factors, 0.010 gr/dscf a 10 % O_2 equates to approximately 0.18 lb PM/TCaO and 1.90 lb PM/hr. 40 CFR 63 Subpart MM specifies the same 20 % opacity threshold for corrective action for both existing and new lime kilns [see 40 CFR 63.864(k)(1)(i)]. Based on this it can be concluded that that the MACT corrective action trigger of 20 % opacity (average of 10 consecutive 6-minute averages) provides a reasonable assurance of compliance with the PM standard for new lime kilns, which is more stringent than the applicable PTC limits. Therefore, the MACT monitoring approach and indicator ranges will provide a reasonable assurance of compliance with all applicable PM and PM-10 limitations identified in Section 2 of this plan. To further support the proposed indicator range, Clearwater evaluated recent No. 3 Lime Kiln performance test data, including PM and opacity measurements. These data are summarized in Figure 3.

As shown in Figure 3, there is no reliable statistical correlation between opacity and PM emissions. However, that data do show that at an opacity range up to 45% of the proposed indicator range (9.0% opacity); maximum PM emissions are only 8% of the constraining PM limitation. Based on this it can be concluded that opacity at PM emission rates equal to or greater than the applicable limits would likely be considerably above the proposed 20% indicator range. Furthermore, the Nos. 3 and 4 Lime Kilns are essentially identical, with identical ESP control systems, and the No. 4 Lime Kiln test data did show a positive correlation between opacity and PM emissions (see No. 4 Lime Kiln CAM Plan). Applying the correlation from the No. 4 Lime Kiln, PM emissions at 20% opacity equate to 3.5 lb/hr vs. the constraining applicable limit of 5.2 lb/hr. Therefore, the proposed indicator range, consistent with MACT Subpart MM requirements, will provide a reasonable assurance of compliance with all applicable PM limitations on the No. 3 Lime Kiln.

As required by 40 CFR 64.4(c)(1), Potlatch has submitted the results of initial performance testing required under 40 CFR 63 Subpart MM for the No. 3 Lime Kiln and ESP control device.[5] No changes to the No. 3 Lime Kiln and associated ESP have taken place that could result in a significant change in the control system performance or the selected opacity indicator range to be monitored since the initial performance test was conducted.

[5] No. 3 Lime Kiln compliance testing conducted August 12, 2004. Test Report dated September 28, 2004. IDEQ performance test approval letter dated March 15, 2005.

3 LIME KILN SOURCE TEST vs. OPACITY

3 Lime Kiln	Units	Run 1	Run 2	Run 3	Average	% of limit
Test Date: 5/14/08						
Start Time		7:43	10:04	12:22		
End Time		8:59	11:15	13:37		
Sampling Time	minutes	60	60	60	60	
PM - Front Half	gr/dscf	0.0048	0.0008	0.0027	0.0028	
PM - Conc. @ 10 % O2	gr/dscf	0.003	0.0005	0.0017	0.0017	3%
PM Limit - Conc. @ 10 % O2	gr/dscf				0.064	
PM - Production Based Rate	lb/hr	0.72	0.12	0.42	0.42	8%
Production Rate - Permit Limit	lb/hr				5.2	
PM Emissions - Production Based Rat	lb/T ADP	0.021	0.0036	0.013	0.013	
PM Emissions - Permit Limit	lb/T ADP				1	
Opacity (PI Tag = AI4917C.PV)	**%**	**4.3**	**4.6**	**5.3**	**4.7**	

3 Lime Kiln	Units	Run 1	Run 2	Run 3	Average	% of limit
Test Date: 6/15/2005						
Start Time		9:28	11:34	14:23		
End Time		10:37	12:43	15:46		
Sampling Time	minutes	60	60	60	60	
PM - Front Half	gr/dscf	0.0009	0.0028	0.0007	0.0015	
PM - Conc. @ 10 % O2	gr/dscf	0.0006	0.0017	0.0004	0.0009	1%
PM Limit - Conc. @ 10 % O2	gr/dscf				0.064	
PM - Production Based Rate	lb/hr	0.13	0.4	0.1	0.21	4%
Production Rate - Permit Limit	lb/hr	-	-	-	5.2	
PM Emissions - Production Based Rat	lb/T ADP	0.0037	0.012	0.0029	0.006	
PM Emissions - Permit Limit	lb/T ADP	-	-	-	1	
Opacity (PI Tag = AI4917C.PV)	**%**	**3.2**	**3.2**	**3.2**	**3.2**	

3 Lime Kiln	Units	Run 1	Run 2	Run 3	Average	% of limit
Test Date: 8/12/04						
Start Time		10:42	12:08	13:29		
End Time		11:45	13:10	14:31		
Sampling Time	minutes	60	60	60	60	
PM - Front Half	gr/dscf	0.00004	0.0007	0.0014	0.0007	
PM Front Half - Conc. @ 10 % O2	gr/dscf	0.00002	0.0004	0.0008	0.0004	1%
PM Limit - Conc. @ 10 % O2	gr/dscf				0.064	
PM Front Half - Production Based Rat	lb/hr	0.005	0.095	0.179	0.093	2%
Production Rate - Permit Limit	lb/hr	-	-	-	5.2	
PM Emissions - Production Based Rat	lb/T ADP	0.0002	0.003	0.006	0.003	
PM Emissions - Permit Limit	lb/T ADP	-	-	-	1	
Opacity(PI Tag = AI4917C.PV)	**%**	**4.5**	**4.7**	**4.7**	**4.6**	

3 Lime Kiln	Units	Run 1	Run 2	Run 3	Average	% of limit
Test Date: 7/16/02						
Start Time:		8:15	10:45	12:32		
End Time:		9:32	11:50	13:35		
Sampling Time	minutes	60	60	60	60	
PM - Front Half	gr/dscf	0.00264	0.00078	0.00065	0.00135	
PM Emission Rate	lb/hr	0.338	0.098	0.081	0.172	3%
Production Rate - Permit Limit	lb/hr	-	-	-	5.2	
Opacity (PI Tag = AI4917C.PV)	**%**	**8.5**	**9.0**	**9**	**8.8**	

lb/hr	%
0.72	4.3
0.12	4.6
0.42	5.3
0.13	3.2
0.4	3.2
0.1	3.2
0.005	4.5
0.095	4.7
0.179	4.7
0.338	8.5
0.098	9.0
0.081	9

Figure 3. No. 3 Lime Kiln Test Data

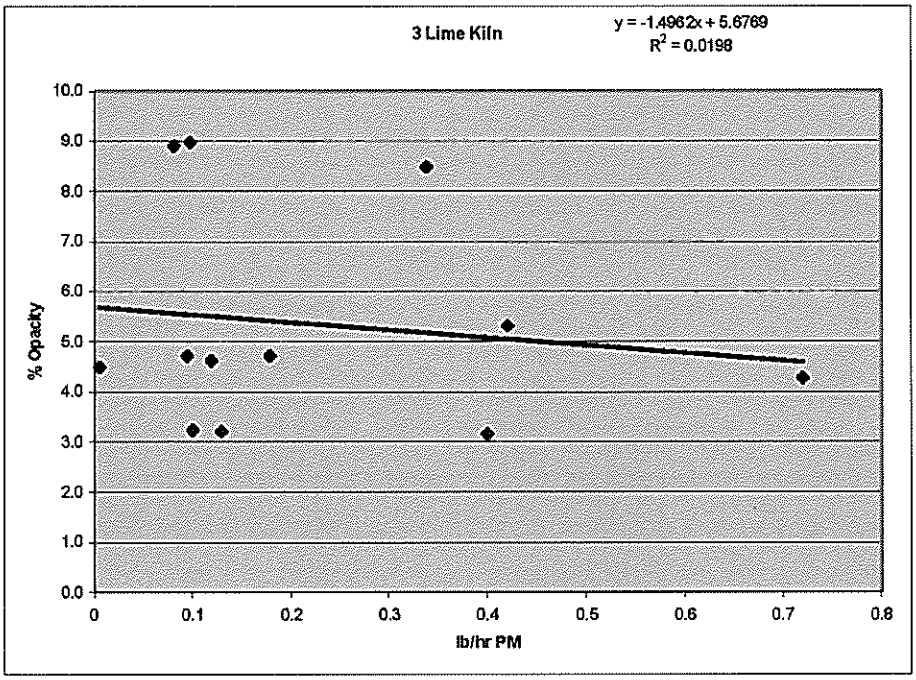

Figure 3. No. 3 Lime Kiln Test Data (Continued)

Compliance Assurance Monitoring (CAM) Plan for
No. 4 Lime Kiln PM and PM-10 Emissions

A. Background

1. Emission Unit

Source:	IPPD Lewiston Facility; Lewiston, ID
Identification:	Emission Point ID: 512 - No. 4 Lime Kiln
Control Technology:	Electrostatic Precipitator (ESP)
Description:	Allis Chalmers Lime Kiln firing natural gas or fuel oil, installed in 1974

2. Applicable Regulations, Emission Limits:

Particulate matter (PM):

1) PTC 069-00001:	5.2 lb/hr
2) PTC 069-00001:	27 tons/yr (combined emissions from Nos. 3 & 4 Lime Kilns) [exempt from CAM pursuant to 40 CFR 64.2(b)(1)(v)]
3) MACT MM:	0.064 gr/dscf corrected to 10% O_2 [exempt from CAM pursuant to 40 CFR 64.2(b)(1)(i)]
4) IDAPA 822:	1 lb/ADTP

Particulate matter (PM-10):

1) PTC 069-00001:	5.2 lb/hr
2) PTC 069-00001:	17.3 tons/yr (combined emissions from Nos. 3 & 4 Lime Kilns) [exempt from CAM pursuant to 40 CFR 64.2(b)(1)(v)]

Monitoring Requirements:
Periodic PM source testing
Continuous opacity monitoring system (COMS)

B. Monitoring Approach

The key elements of the proposed monitoring approach for PM emissions from the No. 4 Lime Kiln, including indicators to be monitored, indicator ranges, and performance criteria are presented in Table 1. The CAM performance indicator is opacity of the ESP exhaust. The CAM monitoring approach involves the use of the existing COMS and monitoring required for PM (surrogate for HAP metals) under 40 CFR 63 Subpart MM. In accordance with 40 CFR 64.3(d)(iii), the COMS meets the general design criteria in 40 CFR 64.3(a) and 64.3(b).

Table 4. Monitoring Approach

Regulatory Citation	Requirement	Proposal
§64.4(a)(1)	Indicator	Opacity of ESP exhaust.
	Measurement Approach	COMS in ESP exhaust as required by 40 CFR 63.864(d).

Regulatory Citation	Requirement	Proposal
§64.4(a)(2)	Indicator Range	Excursion defined as opacity > 20% (average of 10 consecutive 6-minute averages). Excursions trigger corrective action in accordance with SSM plan.
§64.3(b)(1)	Data Representativeness	Install the COMS at a representative location in the ESP exhaust per 40 CFR 63.8(c)(2) and 40 CFR 60, Appendix B – Performance Specification 1 (PS-1).
§64.3(b)(2)	Verification of Operational Status	As required by 63.8(c)(3). A log of opacity readings will be kept onsite and made available for inspection.
§64.3(b)(3)	QA/QC Practices and Criteria	In accordance with 40 CFR 63.8(c) and 63.8(d).
§64.3(b)(4)	Monitoring Frequency	As specified in 40 CFR 63.8(c)(4)(i): Minimum of 1 cycle of sampling and analyzing every 10-second period and one cycle of data recording every 6-minute period.
§64.3(b)(4)(i) §64.3(b)(4)(ii)	Data Collection Procedures	6-minute and average opacity values recorded by PI.
	Averaging Period	60 minutes (average of 10 consecutive 6-minute averages), consistent with monitoring requirements in 40 CFR 63 Subpart MM [40 CFR 63.864(k)(1)(i)].

C. Monitoring Approach Justification

Rationale for Selection of Opacity Performance Indicator

The No. 4 Lime Kiln is subject to National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft Pulp Mills (40 CFR 63 Subpart MM). The applicable standard for PM (surrogate for HAP metals) is 0.064 gr/dscf corrected to 10 % O_2, and the use of a COMS is required for compliance demonstration. In accordance with 40 CFR 64.3(d), the COMS required by the MACT standard must be used to satisfy the requirements of CAM.

40 CFR 63 Subpart MM was proposed after November 15, 1990 pursuant to Section 112 of the CAA and is therefore exempt from CAM in accordance with 40 CFR 64.2(b)(1)(i). However, as provided by 40 CFR 64.4(b)(2) and 64.4(b)(4), the continuous opacity monitoring required under the MACT constitutes presumptively acceptable monitoring for the CAM-applicable PM limitations. No further justification is required for presumptively acceptable monitoring.

Rationale for Selection of Indicator Range

The applicable PM emission standards/limitations were reviewed to determine the most stringent and thereby constraining requirement(s). Using standard industry conversion factors, the applicable MACT limit of 0.064 gr/dscf at 10 % O_2 equates to approximately 0.32 lb/ADTP and 12.2 lb/hr at the maximum permitted production rate. Therefore, the lb/hr PTC limits are more stringent than the MACT limit, and the IDAPA limit is least stringent. The ton per year PTC limits applicable to combined emissions from the Nos. 3 and 4 Lime Kilns qualify as emissions caps and are therefore exempt from CAM pursuant to 40 CFR 64.2(b)(1)(v). The 5.2 lb/hr PM and PM-10 limits were determined to be constraining for the purpose of CAM indicator range selection.

The opacity indicator ranges proposed in this CAM plan are directly consistent with those prescribed in 40 CFR 63 Subpart MM. Although the 5.2 lb/hr PM limit is more stringent than the existing source MACT limit of 0.064 gr/dscf at 10 % O_2 (at or near maximum production rates), it is less stringent that the new source MACT limit of 0.010 gr/dscf at 10 % O_2. Again using standard industry conversion factors, 0.010 gr/dscf a 10 % O_2 equates to approximately 0.18 lb PM/TCaO and 1.90 lb PM/hr. 40 CFR 63 Subpart MM specifies the same 20 % opacity threshold for corrective action for both existing and new lime kilns [see 40 CFR 63.864(k)(1)(i)]. Based on this it can be concluded that that the MACT corrective action trigger of 20 % opacity (average of 10 consecutive 6-minute averages) provides a reasonable assurance of compliance with the PM standard for new lime kilns, which is more stringent than the applicable PTC limits. Therefore, the MACT monitoring approach and indicator ranges will provide a reasonable assurance of compliance with all applicable PM and PM-10 limitations identified in Section 2 of this plan. To further support the proposed indicator range, Clearwater evaluated recent No. 4 Lime Kiln performance test data, including PM and opacity measurements. These data are summarized in Figure 4.

As shown in Figure 4, there was a positive correlation between opacity and PM emissions. Applying the correlation, PM emissions at 20% opacity equate to 3.5 lb/hr vs. the constraining applicable limit of 5.2 lb/hr. Therefore, the proposed indicator range, consistent with MACT Subpart MM requirements, will provide a reasonable assurance of compliance with all applicable PM limitations on the No. 4 Lime Kiln.

As required by 40 CFR 64.4(c)(1), Potlatch has submitted the results of initial performance testing required under 40 CFR 63 Subpart MM for the No. 4 Lime Kiln and ESP control device.[6] No changes to the No. 4 Lime Kiln and associated ESP have taken place that could result in a significant change in the control system performance or the selected opacity indicator range to be monitored since the initial performance test was conducted.

[6] No. 4 Lime Kiln compliance testing conducted August 12, 2004. Test Report dated September 28, 2004. IDEQ performance test approval letter dated March 15, 2005.

4 LIME KILN SOURCE TEST vs. OPACITY						
4 Lime Kiln	Units	Run 1	Run 2	Run 3	Average	% of limit
Test Date: 5/13/08						
Start Time		8:29	10:14	12:28		
End Time		9:38	11:23	13:40		
Sampling Time	minutes	60	60	60	60	
PM - Front Half	gr/dscf	0.002	0.0045	0.0012	0.0026	
PM - Concentration @ 10 % O2	gr/dscf	0.0016	0.0034	0.0009	0.002	3%
PM Limit - Conc. @ 10 % O2	gr/dscf				0.064	
PM - Production Based Rate	lb/hr	0.33	0.78	0.21	0.44	8%
PM - Permit Limit	lb/hr	-	-	-	5.2	
Production Based Rate	lb/T ADP	0.01	0.024	0.0065	0.014	
Production Based Rate - Permit Limit	lb/T ADP	-	-	-	1	
Opacity (PI Tag = AI4947C.PV)	**%**	**7.7**	**8.0**	**8.4**	**8.0**	

4 Lime Kiln	Units	Run 1	Run 2	Run 3	Average	% of limit
Test Date: 7/15/05						
Start Time		8:57	10:43	12:31		
End Time		10:06	11:55	13:38		
Sampling Time	minutes	60	60	60	60	
PM - Front Half	gr/dscf	0.0022	0.0021	0.0009	0.0017	
PM - Concentration @ 10 % O2	gr/dscf	0.0015	0.0014	0.0006	0.0011	2%
PM Limit - Conc. @ 10 % O2	gr/dscf				0.064	
PM - Production Based Rate	lb/hr	0.35	0.34	0.14	0.28	5%
PM - Permit Limit	lb/hr	-	-	-	5.2	
Production Based Rate	lb/T ADP	0.01	0.0097	0.0041	0.008	
Production Based Rate - Permit Limit	lb/T ADP	-	-	-	1	
Opacity (PI Tag = AI4947C.PV)	**%**	**6.3**	**6.3**	**6.4**	**6.3**	

4 Lime Kiln	Units	Run 1	Run 2	Run 3	Average	% of limit
Test Date: 7/18/02						
Start Time		11:45	13:20	14:26		
End Time		12:47	14:21	15:47		
Sampling Time	minutes	60	60	60	60	
PM - Front Half	gr/dscf	0.00161	0.00054	0.001	0.00105	
PM - Concentration @ 10 % O2	gr/dscf	-	-	-	-	
PM - Production Based Rate	lb/hr	0.204	0.069	0.125	0.133	3%
PM - Permit Limit	lb/hr	-	-	-	5.2	
Production Based Rate	lb/T ADP	0.022	0.0074	0.013	0.0141	
Production Based Rate - Permit Limit	lb/T ADP	-	-	-	1	
Opacity (PI Tag = AI4947C.PV)	**%**	**4.8**	**4.6**	**4.4**	**4.6**	

lb/hr	%
0.33	7.7
0.78	8.0
0.21	8.4
0.35	6.3
0.34	6.3
0.14	6.4
0.204	4.8
0.069	4.6
0.125	4.4

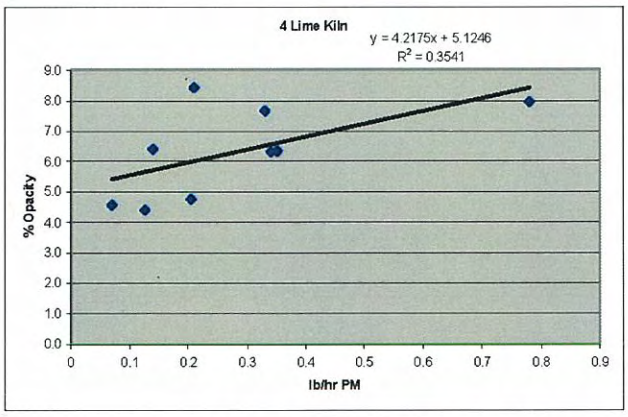

Figure 4. No. 4 Lime Kiln Test Data

Compliance Assurance Monitoring (CAM) Plan for
Dry Fuel Bin PM and Opacity Emissions

A. Background

1. Emission Unit

Source:	IPPD Lewiston Facility; Lewiston, ID
Identification:	Emission Point ID: 432 – Dry Fuel Bin
Control Technology:	Fabric Filter Baghouse
Description:	Baghouse controlling PM emissions from the Dry Fuel Bin (dry fuel conveyance and storage system), installed in 1978

2. Applicable Regulations, Emission Limits:

Particulate matter (PM):
1) IDAPA 701: Process Weight Equation:
$E = 0.045(PW)^{0.60}$ ($PW < 9{,}250$ lb/hr)
$E = 1.10(PW)^{0.25}$ ($PW \geq 9{,}250$ lb/hr)

Opacity:
1) IDAPA 58.01.01.625: 20 % for no more than three minutes in any 60-minute period

Monitoring Requirements:
Quarterly one-minute observations using EPA Method 22

B. Monitoring Approach

The key elements of the proposed monitoring approach for PM emissions from the Dry Fuel Bin, including indicators to be monitored, indicator ranges, and performance criteria are presented in Table 1. The CAM performance indicator is visible emissions.

Table 5. Monitoring Approach

Regulatory Citation	Requirement	Proposal
§64.4(a)(1)	Indicator	Visible emissions at baghouse exhaust.
	Measurement Approach	Daily see/no see visible emission observations
§64.4(a)(2)	Indicator Range	Excursion defined as visible emissions observed during daily observation. Excursions trigger baghouse inspection and maintenance as necessary to return the system to no-visible emissions status.
§64.3(b)(1)	Data Representativeness	Daily see/no see visible emission observations

Regulatory Citation	Requirement	Proposal
§64.3(b)(2)	Verification of Operational Status	Daily observations part of SOP.
§64.3(b)(3)	QA/QC Practices and Criteria	Initial training of observer in the principles of visible emission observations
§64.3(b)(4)	Monitoring Frequency	Daily (at least once every 24-hours) as required by 40 CFR 64.3(b)(4)(iii).
§64.3(b)(4)(i) §64.3(b)(4)(ii)	Data Collection Procedures	Perform observations daily or as weather permits. Maintain a log of all visual observations and correction action taken in response to excursions.
	Averaging Period	See/no see observations performed daily.

C. Monitoring Approach Justification

Rationale for Selection of Visible Emissions Performance Indicator

The presence of visible emissions (opacity) from the Dry Fuel Bin baghouse exhaust is indicative of common baghouse problems and malfunctions including broken or worn bags, blinding of the filter media, failure of the cleaning system, leaks, reentrainment of dust, wetting of the bags, or fan problems.

Rationale for Selection of Indicator Range

The presence of any visible emissions is indicative of a baghouse problem or malfunction that could result in an exceedance of the applicable PM emission limit. Establishing this indicator range will ensure that corrective action is initiated as soon as practicable to return the baghouse to proper operating condition, providing a reasonable assurance of compliance with the applicable PM and opacity limits.

Appendix E – Procedures and Plans Developed by Clearwater as Required by the Tier I Permit

Clearwater Developed Procedures and Plans

Source (Control Device)	Name of Document	Date of Document	Regulation Citation	Location of Document
No. 4 Power Boiler	ESOP 418 - No. 4 Power Boiler Startup, Shutdown, Malfunction, Operating & Maintenance Procedures	Dec-07	Tier 1 Permit Cond. 3.9	Intranet
No. 4 Recovery Furnace (Precipitator)	ESOP 412 - No. 4 Recovery Boiler Startup, Shutdown, Malfunction, Operating & Maintenance Procedures	Aug-07	Tier 1 Permit Cond. 5.10	Intranet
No. 4 Recovery Smelt Dissolver (Scrubber)	ESOP 413 - Smelt Dissolver Scrubber No. 4 Startup, Shutdown, Malfunction, Operating & Maintenance Procedures	Sep-07	Tier 1 Permit Cond. 5.10	Intranet
No. 4 and 5 Recovery Salt Cake Systems (Baghouse)	ESOP - 416 Nos. 4 and 5 Recovery Boiler Salt Cake Systems Startup, Shutdown, Malfunction, Operating and Maintenance Procedures	Mar-03	Tier 1 Permit Cond. 8.6	Intranet
Lime Kilns Nos. 3 and 4 (Precipitator and Scrubber)	ESOP - 401 Nos. 3 & 4 Lime Kilns Startup, Shutdown, Malfunction, Operating & Maintenance Procedures	Feb-04	Tier 1 Permit Cond. 9.11	Intranet
Lurgi System	Lurgi PSM Operating Procedures List	Sep-07	Tier 1 Permit Cond. 14.7	Intranet
Sawdust Bleach Plant and Chip Bleach Plant (scrubbers)	MACT Compliance Plan for Bleaching Systems	Aug-07	40 CFR Part 63 Subpart S	Intranet
LVHC System	MACT Compliance Plan for LVHC Systems	Aug-07	40 CFR Part 63 Subpart S	Intranet
HVLC System (Methanol Scrubber)	MACT Compliance Plan for the Chip Fiberline HVLC System and Oxygen Delignification Blow Tank Methanol Scrubber	Feb-07	40 CFR Part 63 Subpart S	Intranet
Nos. 3 & 4 Lime Kilns	MACT II Compliance Plan for Nos. 3 and 4 Lime Kilns	Aug-07	40 CFR Part 63 Subpart MM	Intranet
Nos. 4 & 5 Recovery Furnaces	MACT II Compliance Plan for Nos. 4 and 5 Recovery Furnaces	Jul-08	40 CFR Part 63 Subpart MM	Intranet
Smelt Dissolving Tanks	MACT II Compliance Plan for Nos. 4 and 5 Smelt Dissolving Tanks	Sep-07	40 CFR Part 63 Subpart MM	Intranet
Clean Condensate Alternative	Startup, Shutdown & Malfunction Plan for the Clean Condensate Alternative	Apr-07	40 CFR Part 63 Subpart S	Intranet
Pulping Condensate System	MACT Compliance Plan for the Pulping Condensate System and Clean Condensate Alternative	Feb-07	40 CFR Part 63 Subpart S	Intranet

Appendix F – EPA Acid Rain Applicability Letter

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
AIR AND RADIATION

James T. Stewart
Chief Executive Officer
Mobile Energy Services Company, LLC
P.O. Box 2747
Mobile, AL 36652

Dear Mr. Stewart:

This letter is U.S. EPA's determination of applicability under 40 CFR 72.6(c) of the Acid Rain regulations for the Mobile Energy Services Company, LLC ("MESC") facility (Facility ID (ORISPL) 50407), located at the Kimberly-Clark Corporation's (Kimberly-Clark) manufacturing facility in Mobile, Alabama. This determination is made in response to your letter of April 10, 2003 requesting a determination.

Background

Beginning in 1955, Scott Paper Company ("Scott") constructed, and owned and operated in Mobile, pulp, paper, and tissue mills, as well as cogeneration units, interconnecting distribution and synchronizing buses, and ancillary structures. The mills and other equipment and structures were operated as a fully integrated manufacturing facility, with the cogeneration units producing about 98% of the electricity and 100% of the steam used at the mills. In December 1994, MESC purchased from Scott five cogeneration units, the interconnecting distribution buses and synchronizing bus, and the ancillary structures at the facility.[1] MESC continues to own the units and related equipment and structures and to meet the electricity and steam requirements of the manufacturing facility. In December 1994, South African Pulp and Paper Inc. (SAPPI) purchased the paper mill from Scott. Kimberly-Clark acquired the pulp and tissue

[1] MESC is a wholly owned subsidiary of Mobile Energy Services Holdings, Inc., which is in turn wholly owned by Southern Company. Southern Company also owns Alabama Power Company ("APCo"), whose system is interconnected with the manufacturing facility.

mills from Scott in 1995 and shut down the pulp mill in 1999. Finally, in 2002, Kimberly-Clark acquired the paper mill from SAPPI.

Of the five cogeneration units owned and operated by MESC, Power Boilers 5 and 6 (Units PB5 and PB6) commenced operation in 1960 and 1964 and have been in standby mode since 2001 and 2000 respectively. Power Boiler 5 burns natural gas only, while Power Boiler 6 burns natural gas and biomass. The two boilers produce medium-pressure steam that, through a common steam header, is used to produce electricity at Steam Turbine 3TG. The steam turbine has a nameplate capacity of 12.5 MW, commenced operation in 1960, and has been in standby mode since 2001. Steam was, and still can be, drawn off Steam Turbine 3TG to be used for industrial purposes in the manufacturing operations.

Power Boiler 7 (Unit PB7) commenced operation in 1985 and continues to operate, burning coal, natural gas, sludge, and wood waste. Power Boiler 8 (Unit PB8) was originally designated as Recovery Furnace 7 when it commenced operation in 1985. It burned black liquor and natural gas until 1999; since then it has burned only natural gas and continues to operate. Recovery Furnace 8 (Unit RF8) commenced operation in 1994, has been in standby mode since 2000, and burns black liquor and natural gas. Power Boiler 7, Power Boiler 8, and Recovery Furnace 8 produce steam used, through a common steam header, to produce electricity at Steam Turbines 5TG, 6TG, and 7TG, which have nameplate capacities of 43.1 MW, 35.7 MW, and 35.3 MW and which commenced operation in 1985, 1986, and 1999 respectively. These units also can serve Steam Turbine 3TG. As with Steam Turbine 3TG, steam was, and still can be, drawn off of Steam Turbines 5TG, 6TG, and 7TG to be used for industrial purposes in the manufacturing operations.

The power distribution system for the integrated manufacturing facility comprises lines, transformers, and other electrical equipment owned by APCo, Kimberly-Clark, or MESC. The site is connected physically to APCo's transmission and distribution system via two 115 kV transmission lines that are owned and operated by APCo. The two 115kV transmission lines are interconnected by 115kV tie-line equipment and connect to three 30,000 kVA transformers that are leased by Kimberly-Clark from APCo. These transformers represent the only path by which electricity can flow between APCo's system and the integrated manufacturing facility. Otherwise, there is no direct physical connection between MESC's equipment and APCo's system.

Electricity produced using MESC's units is distributed via MESC's distribution buses and 13.8 kV synchronizing bus to Kimberly-Clark's step-down transformers. These transformers are located throughout the facility and are connected to lower voltage lines that serve the various Kimberly-Clark (and, during 1994-2002, SAPPI) loads.

An automated control program assists in regulating the amount of electricity produced by MESC to prevent power generated by MESC's units from inadvertently exceeding total Kimberly-Clark (and SAPPI) load requirements and flowing through Kimberly-Clark's leased transformers onto APCo's system. This control program meters the electricity flowing into and out of Kimberly-Clark's leased

transformers via the tie line equipment and adjusts the electrical output of Steam Turbine 5TG such that MESC's electrical output falls approximately 1 MW below total Kimberly-Clark (and SAPPI) load, allowing about 1 MW of electricity to flow consistently from APCo's system for use in the integrated manufacturing facility. The control program was initially installed in 1985 by Scott in order to prevent generation by the units then on-site from flowing into APCo's system.

However, Scott sold some electricity to APCo (e.g., in 1990-1994) when generation by the units exceeded electricity needs at the facility. Further, in 1999 and 2000, MESC was authorized by Kimberly-Clark to use the leased 30,000 kVA transformers in order to sell electricity to power marketers, Southern Company Energy Marketing, L.P. and Enron Power Marketing, Inc. MESC made these sales, and the electricity was resold (to Alabama Electric Cooperative) using APCo's system.

EPA Determination

Units PB5, PB6, PB7, PB8, and RF8 are "units," as defined in §72.2, because they are all combustion devices that burn fossil fuel. Further, these units are "cogeneration units," as defined in §72.2. Each unit, along with the associated steam turbines, produced or is producing electricity and process steam through the sequential use of energy, i.e., by using energy to produce steam first for generation of electricity and then for use in the production of pulp, paper, or tissue. The units have "equipment used to produce electric energy and forms of useful thermal energy (such as heat or steam) for industrial, commercial, heating or cooling purposes, through sequential use of energy" (40 CFR 72.2 (definition of "cogeneration unit")) and are therefore cogeneration units.[2]

The Clean Air Act includes provisions discussing in detail the conditions under which a cogeneration unit is exempt from the Acid Rain Program. See, e.g., 42 U.S.C. 7651a(17)(C) (stating that a cogeneration unit is not a utility unit if it meets certain requirements concerning the purpose of its construction and the amount of electricity that it sells); and 42 U.S.C. 7651d(g)(6)(A) (stating that Clear Air Act title IV does not apply to a qualifying cogeneration facility that meets certain conditions as of November 15, 1990). EPA interprets these provisions, and §§72.2 and 72.6 of the regulations implementing the provisions, to provide that a cogeneration unit used to produce electricity for sale is a utility unit and thus subject to the Acid Rain Program, unless the unit meets the requirements for an exemption under §72.6(b).

1. Initial qualification for exemption from the Acid Rain Program

Under §72.6(b)(4)(i), an exemption from the Acid Rain Program applies to a cogeneration unit that commenced construction on or before November 15, 1990 and that "was constructed for the purpose of

[2] Although Units PB5, PB6, and RF8 are not operating, the units are in standby mode and still have the equipment necessary to sequentially produce electricity and useful thermal energy.

supplying equal to or less than one-third of its potential electrical output capacity [PEOC] or equal to or less than 219,000 MWe-hrs actual electric output on an annual basis to any utility power distribution system for sale (on a gross basis)." 40 CFR 72.6(b)(4)(i). If a unit meets this initial criterion and qualifies for the exemption, the unit then must not exceed the electricity sales threshold on a rolling three-year average basis after November 15, 1990 in order to retain the exemption.

Unit PB5 commenced operation in 1960 and so obviously commenced construction before November 15, 1990. The unit had a maximum design heat input capacity of 310 mmBtu/hr and a PEOC of 30.3 MWe.[3] One-third of the unit's PEOC is 88,476 MWe-hrs.[4] Since the exemption under §72.6(b)(4)(i) allows annual (or average annual) electricity sales of up to one-third of a unit's PEOC or 219,000 MWe-hrs, whichever is greater, the electricity sales threshold for the exemption for Unit PB5 is 219,000 MWe-hrs.

Unit PB6 commenced operation in 1964 and so obviously commenced construction before November 15, 1990. The unit had a maximum design heat input capacity of 494 mmBtu/hr and a PEOC of 48.2 MWe.[5] One-third of the unit's PEOC is 140,744 MWe-hrs.[6] Under §72.6(b)(4)(i), the electricity sales threshold for the exemption for Unit PB6 is 219,000 MWe-hrs.

Unit PB7 commenced operation in 1985 and so obviously commenced construction before November 15, 1990. The unit had a maximum design heat input capacity of 980 mmBtu/hr and a PEOC of 95.7 MWe.[7] One-third of the unit's PEOC is 279,444 MWe-hrs.[8] Since the exemption under §72.6(b)(4)(i) allows annual (or average annual) electricity sales of up to one-third of a unit's PEOC or 219,000 MWe-hrs, whichever is greater, the electricity sales threshold for the exemption for Unit PB7 is 279,444 MWe-hrs.

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[3] PEOC for the unit is calculated by starting with the maximum design heat input capacity of the boiler (310 x 10^6 Btu/hr for Unit PB5), dividing by 3 (reflecting the assumed efficiency of the unit), dividing by 3,413 (reflecting the assumed heat rate), and dividing by 1,000 (converting to MWe). See 40 CFR part 72, appendix D.

[4] This figure is calculated by multiplying the PEOC by 8,760, the number of hours in a year, and then dividing by 3. See 40 CFR 72.6(b)(4)(ii).

[5] See n. 3.

[6] See n. 4.

[7] See n. 3.

[8] See n. 4.

Unit PB8 commenced operation in 1985 and so obviously commenced construction before November 15, 1990. The unit had a maximum design heat input capacity of 1,155 mmBtu/hr and a PEOC of 112.8 MWe.[9] One-third of the unit's PEOC is 329,376 MWe-hrs.[10] Under §72.6(b)(4)(i), the electricity sales threshold for the exemption for Unit PB8 is 329,376 MWe-hrs.

Section 72.6(b)(4)(i) provides that, if the purpose of construction of a cogeneration unit is not known, then its actual operation during 1985-87 will be assumed to be "consistent" with that purpose. 40 CFR 72.6(b)(4)(i). The MESC units were originally constructed by Scott as part of a fully integrated pulp, paper, and tissue manufacturing facility in order to provide the electricity and steam needs of the facility and apparently not to sell electricity. This is supported by the following factors asserted by MESC: (1) since 1985 the facility has had in place a automated control program to prevent electricity generated on site from flowing to APCo's transmission and distribution system; and (2) no sales were made by the facility (e.g., to APCo) in 1985-1987.[11] EPA therefore finds that each of these units meets the initial criterion for the exemption under §72.6(b)(4)(i), i.e., construction for the purpose of supplying one-third or less of the unit's PEOC or less than 219,000 MWs-hrs to an electric utility system for sale.

Under 40 CFR 72.6(b)(4)(ii), an exemption from the Acid Rain Program applies to a cogeneration unit that commenced construction after November 15, 1990 and "supplies equal to or less than one-third of its [PEOC] or equal to or less than 219,000 MWe-hrs actual electric output on an annual basis to any utility power distribution system for sale (on a gross basis)." 40 CFR 72.6(b)(4)(ii). If a unit meets this initial criterion for the year in which it commenced commercial operation and thereby qualifies for the exemption, then the unit must continue to meet the electricity sales threshold on a three-year rolling average basis in order to retain the exemption.

Construction commenced on Unit RF8 in 1992. The unit commenced operation in 1994 and had a maximum design heat input capacity of 809 mmBtu/hr and a PEOC of 79.0 MWe.[12] One-third of Unit 1's PEOC is 230,680 MWe-hrs.[13] Since the exemption under §72.6(b)(4)(ii) allows annual (or average annual) electricity sales of up to one-third of a unit's PEOC or 219,000 MWe-hrs, whichever is greater, the electricity sales threshold for the exemption for Unit 1 is 230,680 MWe-hrs. In the unit's first year of

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[9] See n. 3.

[10] See n. 4.

[11] For purposes of this applicability determination, EPA is assuming - - and conditioning the finding on the qualification of the MESC units for the exemption under §72.6(b)(4)(i) and (ii) on - - the correctness of MESC's assertions concerning sales by Scott in 1985-1987.

[12] See n. 3.

[13] See n. 4.

operation, Scott owned the unit, used all of its electricity generation, and made no electricity sales. EPA therefore finds that the unit meets the initial criterion for the exemption under §72.6(b)(4)(ii), i.e., supplies one-third or less of the unit's PEOC or less than 219,000 MWe-hrs to an electric utility system for sale.

2. On-going qualification for exemption from the Acid Rain Program

Having determined that each of the MESC units meets the initial criterion for a cogeneration unit exemption under §72.6(b)(4)(i) or (ii), U.S. EPA must determine whether each unit meets the on-going electricity sales criterion for the exemption, i.e., the supplying, on a three- year rolling average basis, of one-third or less of the PEOC or less than 219,000 MWe-hrs to a utility power distribution system for sale. Before MESC's purchase of the cogeneration units in December 1994, Scott owned the pulp, paper, and tissue mills as well as the cogeneration units. Electricity generated at the units and used at the mills was not sold; the only electricity sales apparently were the amounts sold by Scott to APCo. However, with MESC's purchase of the cogeneration units in December 1994, the entity that owns the industrial host (i.e., Scott, Kimberly-Clark, or SAPPI, depending on the time period) is different than the entity that owns the cogeneration units (i.e., MESC), and all the electricity produced, but not used, by the cogeneration units is sold by MESC. U.S. EPA must determine whether all of these sales constitute the supplying of electricity to a "utility power distribution system" for sale under §72.6(b)(4). 40 CFR 72.6(b)(4)(i) and (ii); see also 42 U.S.C 7651a(17)(C).

In prior applicability determinations for cogeneration units, U.S. EPA treated all electricity produced and sold by a cogeneration unit as the supplying of electricity to a "utility power distribution system" for sale, without considering what lines were used to make the sale, and considered all such electricity in determining whether a cogeneration unit met the on-going electricity sales criterion. In contrast, amounts of electricity produced by an owner at its cogeneration unit for use in its industrial facility were not considered sales to a "utility power distribution system." For example, all electric generation by a cogeneration unit that was provided to a party that was not an owner of the cogeneration unit -- or that exceeded a partial cogeneration-unit owner's proportionate share of the unit's electric generation -- was considered in applying the electricity sales criterion.[14] However, MESC contends that electricity sold to the industrial host of a cogeneration unit should not be treated as sales to a utility power distribution system and so should be excluded in applying the electricity sales threshold under the cogeneration unit exemption.

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[14] See, e.g., letter to Conoco Global Inc. (Feb. 26, 1999) (not considering as sales the portion of electric generation used by a partial owner and not exceeding that owner's percent ownership interest); letter to Cleco Corporation (Ap. 16, 1999) (considering as sales the portion of electric generation used by a partial owner and exceeding that owner's percent ownership interest); letter to Saudi Refining, Inc. (Aug. 14, 1997) (not considering as sales any portion of electric generation because a single entity operates and controls both the unit and the industrial facility and owns the electricity).

Upon reconsideration of this issue, U.S. EPA now believes that electricity sold by a cogeneration unit owner to an industrial facility owner who takes both electricity and steam for internal use from the unit should not be automatically considered sales to a "utility power distribution system." Instead, U.S. EPA maintains, for the reasons discussed below, that the issue should be examined on a case-by-case basis to determine whether the lines used for the sales qualify as part of a "utility power distribution system" and whether such sales qualify as electricity supplied to a "utility power distribution system" for sale. First, U.S. EPA is concerned that the approach of automatically treating all sales to a non-owner of a cogeneration unit -- or sales exceeding a partial owner's proportionate share -- as electricity supplied "to a utility power distribution system" for sale would have the effect of reading that phrase out of the regulations. For example, if all such sales were treated as automatically qualifying as "utility power distribution system" sales, then any line over which the electricity involved flows to the purchaser would in effect be assumed to be a "utility power distribution system." This would result in interpreting the regulatory (and the statutory) language of the cogeneration exemption the same even if that language did not include the phrase "to a utility power distribution system." In other words, if any line on which electricity flows to a purchaser automatically qualified as a "utility power distribution system" without any further inquiry, then it would be impossible for there to be any sale that was not a sale to such a system. The phrase referring to such a system would add nothing to the cogeneration exemption language.

Second, U.S. EPA's concern that its prior approach in interpreting "utility power distribution system" in the §72.6(b)(4) exemption seems overbroad is supported by prior interpretations made by U.S. EPA of similar language in subpart Da of part 60. Subpart Da applies -- to all units and not just cogeneration units -- language that, like that in §72.6(b)(4), refers to the supplying of electricity to a "utility power distribution system" for sale. Specifically, §60.41a defines "electric utility steam generating unit" as "any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale." 40 CFR 60.41a. Under §60.40a, such a unit that is capable combusting more than 250 mmBtu/hr and for which construction or modification commenced after September 18, 1978 is subject to subpart Da. A boiler that does not meet the "electric utility steam generating unit" definition is subject to other requirements under part 60, e.g., subpart D or Db.

U.S. EPA has issued some determinations addressing whether particular boilers met that definition under §60.41a and were subject to subpart Da. In those determinations, U.S. EPA stated that units were not subject to subpart Da because "their power will not be sold to or through a general distribution system for further re-sale of electricity" (Letter to Howard R. Heim, Jr. from Edward E. Reich at 2 (Dec. 7, 1978)) and that the sales threshold was intended to cover "electric power generated by the cogeneration unit minus the industrial on-site consumption" (Letter to Marshall Lee Miller from Edward E. Reich at 2 (May 15, 1981)). While these interpretations were made in an entirely different regulatory context than the instant case and do not necessarily apply here in full, they support the approach that every line on which electricity flows to a purchaser does not necessarily qualify as a "utility power distribution system." U.S. EPA therefore today rejects the approach of treating every such line automatically as a "utility power

distribution system" and is instead applying in the instant case the approach of determining on a case-by-case basis whether such treatment is appropriate.

In the instant case starting with MESC's purchase of the cogeneration units in December 1994, electricity produced from generators served by Units PB5, PB6, PB7, PB8, and RF8 flowed through MESC's interconnecting distribution buses and a synchronizing bus to lines owned by Scott, Kimberly-Clark, or SAPPI and then to the mills for industrial use. None of the lines involved in MESC's sales to Scott, Kimberly-Clark, and SAPPI (i.e., MESC's buses and Scott's, Kimberly-Clark's, or SAPPI's lines) were used to make electricity sales to the general public, i.e., to all customers in a specified geographic area. The owners of these lines had no obligation to sell electricity to the general public and did not make any sales to the general public.[15]

However, in contrast to the sales to Scott, Kimberly-Clark, and SAPPI, MESC's sales to the wholesale marketers after December 1994 utilized some lines that were also used to make electricity sales to the general public. For purposes of the sales to the wholesale marketers, electricity from MESC's units and generators flowed through MESC's buses, the APCo transformers leased by Kimberly-Clark, and certain APCo lines to APCo's system. APCo uses its system to make electricity sales to the general public in its franchise service area. Based on all of these circumstances, EPA concludes that the electricity sold to Scott, Kimberly-Clark, and SAPPI is not -- but the electricity sold to the wholesale marketers is -- electricity supplied to a "utility power distribution system" for sale under §72.6(b)(4).[16]

As a result, the only sales by MESC that count against the thresholds for purposes of applying the on-going electricity sales criterion for the cogeneration unit exemption under §72.6(b)(4) are MESC's sales to the wholesale marketers. The only sales that MESC made to the wholesale marketers were 10,587 MWe-hrs in 1999 and 5,265 MWe-hrs in 2000.[17] As discussed above, in order to maintain their

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[15] Before MESC's purchase of the cogeneration units in December 1994, all of these lines were owned by Scott. It is EPA's understanding that none of the lines were used during that period to make electricity sales to the general public. EPA is assuming - - and conditioning the finding on the qualification of the MESC units for the exemption under §72.6(b)(4)(i) and (ii) on - - the correctness of this understanding.

[16] Similarly, before MESC's purchase of the cogeneration units in December 1994, electricity sold by Scott to APCo used APCo's system and was electricity supplied to a "utility power distribution system" for sale.

[17] According to Kimberly-Clark, Scott sold some electricity to APCo during 1990-1994, i.e., 8,425 MWe-hrs, 4,374 MWe-hrs, 6,301 MWe-hrs, 3,022 MWe-hrs, and 4,106 MWe-hrs in 1990, 1991, 1992, 1993, and 1994 respectively. For purposes of this applicability determination, EPA is assuming - - and conditioning the finding on the qualification of the MESC units for the exemption under §72.6(b)(4)(i) and (ii) on - - the correctness of these figures as representing Scott's total annual sales of

exemptions from the Acid Rain Program, Units PB5, PB6, PB7, PB8, and RF8 must not exceed three-year-rolling-average thresholds of 219,000 MWe-hrs, 219,000 MWe-hrs, 279,444 MWe-hrs, 329,376 MWe-hrs, and 230,680 MWe-hrs respectively. Even if the entire amount of annual sales by MESC during 1999-2000 (and by Scott during 1990-1994)[18] were attributed to only one of these units, the threshold would not be exceeded through 2002. Consequently, regardless of the factor (e.g., steam production) used to attribute such sales to the individual units, each of the units met the on-going electricity sales criterion and continues to be exempt from the Acid Rain Program under §72.6(b)(4).

If any of MESC's units exceeds the on-going electricity sales threshold (e.g., sells to wholesale marketers more than 219,000 MWe-hrs and more than one-third of its PEOC on a three-year rolling average basis), that unit must comply with all applicable requirements of the Acid Rain Program, including the requirements to apply for and receive an Acid Rain permit (under part 72), to monitor and report emissions (under part 75) within the earlier of 90 unit operating days, or 180 calendar days, of becoming an affected unit,[19] and to hold allowances to cover sulfur dioxide emissions (under parts 72 and 73).

This determination relies, and is contingent, on the accuracy and completeness of the representations in the April 10, 2003 petition, in submissions provided on November 21 and December 17, 2002 and March 26, 2003, and in comments provided on June 25, 2003. The determination is appealable under 40 CFR part 78. The applicable regulations require you to send copies of this letter to each owner or operator of MESC's units
(40 CFR 72.6(c)(1)). If you have further questions regarding the Acid Rain Program, please contact Robert Miller of EPA's Clean Air Markets Division at (202) 564-9077.

Sincerely,

/s/ (August 8, 2003)

Sam Napolitano, Acting Director
Clean Air Markets Division

cc: Jeff Kitchens, Alabama DEP
Art Hofmeister, U.S. EPA Region 4

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electricity from the units (whether to APCo or to any other party) during 1990-1994.

[18] See n.15, n.16, and n.17.

[19] See 40 CFR 75.4(c) (2001).