

Statement of Basis

**Permit to Construct No. P-2019.0019
Project ID 62212**

**Clearwater Paper Corp. - Pulp and Paperboard Div., Idaho
Lewiston, Idaho**

Facility ID 069-00001

Final

**September 10, 2019
Tom Burnham, P.E.
Permit Writer**

EB

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01. et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

acfm	actual cubic feet per minute
acfs	actual cubic feet per second
AFS	AIRS Facility Subsystem
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BMP	best management practices
Btu	British thermal units
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CaO	lime
CBP	concrete batch plant
CEMS	continuous emission monitoring system
CERMS	continuous emission rate monitoring system, as defined as defined in 40 CFR 60 Appendix B, Performance Specification 6
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CGA	Cylinder Gas Audit
CI	compression ignition
Clearwater	Clearwater Paper Corporation
CO	carbon monoxide
COMS	continuous opacity monitoring system
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	U.S. Environmental Protection Agency
ESP	electrostatic precipitator
gpm	gallons per minute
gph	gallons per hour
gr	grain (1 lb = 7,000 grains)
HAP	hazardous air pollutants
hr/yr	hours per year
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometers
lb/hr	pounds per hour
lb/qtr	pound per quarter
m	meters
MACT	Maximum Achievable Control Technology
mg/dscm	milligrams per dry standard cubic meter
MMBtu	million British thermal units
MMscf	million standard cubic feet
NAAQS	National Ambient Air Quality Standard
NCG	Noncondensable gas. Noncondensable gases are also called low volume, high concentration (LVHC) gases
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
O&M	operation and maintenance
PC	permit condition
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers

ppm	parts per million
PS2	Performance Specification 2
PS5	Performance Specification 5
PS6	Performance Specification 6
PTC	permit to construct
PTC/T2	permit to construct and Tier II operating permit
PTE	potential to emit
RA	relative accuracy
RAP	recycled asphalt pavement
RATA	relative accuracy test audit
RFO	reprocessed fuel oil
Rules	Rules for the Control of Air Pollution in Idaho
scf	standard cubic feet
SCL	significant contribution limits
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SO _x	sulfur oxides
SSM	startup, shutdown, and malfunction
tADP	tons of air dried pulp
T/yr	tons per consecutive 12-calendar month period
T2	Tier II operating permit
Tier I	Tier I operating permit
TAP	toxic air pollutants
TEQ	toxicity equivalent
T-RACT	Toxic Air Pollutant Reasonably Available Control Technology
TRS	total reduced sulfur
U.S.C.	United States Code
VE	visible emissions
UTM	Universal Transverse Mercator
VOC	volatile organic compounds
µg/m ³	micrograms per cubic meter

FACILITY INFORMATION

Description

Clearwater Paper Corporation (Clearwater), 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.

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.

Clearwater's chlorine dioxide plant (Lurgi Plant) actually consists of two separate chlorine dioxide plants (134 and 234). In each of the plants, chlorine dioxide is generated by a chemical reaction between a sodium chlorate solution (Na₂ClO₃) and a hydrochloric acid solution (HCL) to form gaseous chlorine dioxide (ClO₂). The sodium chlorate is produced by the electrolysis cells. The ClO₂ is absorbed into chilled water to form the chlorine dioxide solution and stored until needed for bleaching or used immediately. The two plants have a combined final exhaust chlorine scrubber (Lurgi scrubber). The units are also permitted to use the Fiberline Bleach Plant scrubber (Auxiliary scrubber) during maintenance periods.

Permitting History

A complete permitting history can be found in the statement of basis for the current Tier I operating permit. The following permitting history, taken from the statement of basis for Tier I operating permit issued March 8, 2017, is only for the Lurgi Chlorine Dioxide Plant that are related to this permitting action.

Table 1 Permit History

Permit Type	Permit Number	Issue Date	Expiration Date	Project	Status
PTC	069-00001	07/03/90	N/A	Lurgi installation	S
PTC	069-00001	06/22/94	N/A	Lurgi modification to increase production	S
PTC	069-00001	08/06/94	N/A	Lurgi modification to increase production amendment	S
PTC	069-00001	12/18/95	N/A	Lurgi/Fiberline scrubber cross-tie installation	S
PTC	069-00001	01/31/96	N/A	Lurgi 1995 permit amendment	S
PTC	069-00001	04/28/99	N/A	Lurgi modification to increase production	S
PTC	069-00001	09/22/99	N/A	Lurgi administrative revision	A (will be S after the issuance of this permit)
PTC	069-00001	02/14/00	N/A	PTC amend - Lurgi	S
T1	069-00001	12/17/02	12/17/07	Initial Tier I permit	S
T1	T1-050216	02/21/07	12/17/07	Replaces T1 permit issued 12/17/02	S
T1	T1-2007.0057	08/27/07	N/A	Replaces T1-050217 issued 2/21/07 (permit transferred to Clearwater on 12/23/08)	S
T1	T1-2007.0106	01/01/10	1/1/2015	Tier I renewal	S
T1	T1-2014.0023	02/19/16	2/19/21	Tier I renewal	A
T1	T1-2014.0023	3/8/17	2/19/21	Tier I Amendment	A

Application Scope

This PTC is a revision of an existing PTC to remove the Lurgi scrubber days of operation requirement, process in accordance with 209.05.c.

Application Chronology

April 1, 2019	DEQ received an application.
April 5, 2019	DEQ received an application fee.
April 29, 2019	DEQ determined that the application was complete.
April 30, 2019	DEQ made available the draft permit and statement of basis for peer and regional office review.
May 6, 2019	DEQ made available the draft permit and statement of basis for applicant review.
May 17 – June 17, 2019	DEQ provided a public comment period on the proposed action.
June 24, 2019	DEQ provided a proposed permit for EPA review.
September 10, 2019	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Emissions Units and Control Equipment

Table 2 Emissions Unit and Control Equipment Information

Source ID No.	Sources	Control Equipment	Emission Point ID No.
1	<u>Emissions Unit Name: Chlorine Dioxide Plants 134 and 234</u> Manufacturer: Lurgi Model: 42-cell electrolysis Manufacture Date: 1990	<u>Control Device Name: Lurgi scrubber</u> Manufacturer: Lurgi Manufacture Date: 1990 Type: Wet scrubber Or, <u>Control Device Name: Auxiliary scrubber</u> Manufacturer: Fiberline Manufacture Date: 1995 (cross-tie) Type: Wet scrubber	Exit height: 76 ft (23 m) ^(a) Exit diameter: 1.0 ft (0.3 m) Exit flow rate: 1800 acfm Exit temperature: 70 °F (21 °C) Exit height: 125 ft (38 m) ^(a) Exit diameter: 2.0 ft (0.6 m) Exit flow rate: 9500 acfm Exit temperature: 165 °F (74 °C)

a) From P-06900001 SOB, issued December 18, 1995, and amended January 31, 1996.

Emissions Inventories

Emissions inventory was not submitted for this application because this permitting action is for revising the monitoring, recordkeeping, and reporting requirements. There is no physical or operational change that causes emissions increase as a result of this permitting action. A complete EI was provided in the Statement of basis for the Tier I operating permit, issued February 19, 2016, and is listed as follows:

Table 5.2 EMISSIONS INVENTORY - POTENTIAL TO EMIT (T/yr)

Source Description	PM T/yr	PM ₁₀ T/yr	PM _{2.5} T/yr	SO ₂ T/yr	CO T/yr	NO _x T/yr	VOC T/yr	GHG CO ₂ e T/yr
Sawdust Handling	2.82	1.33	0.20	0	0	0	1.33	0
Sawdust Transfer Cyclones	25.9	18.1	7.65	0	0	0	0	0
Chip Handling	5.63	2.69	0.50	0	0	0	3.08	0
Sawdust Brownstock wash	0	0	0	0	0	0	56.33	0
O ₂ Delignification	0	0	0	0	74.5	0	80.1	0
NCG Incinerator	7.19	7.19	7.19	20.0	6.21	13.4	2.29	4,715
Sawdust Bleach Plant	0	0	0	0	75.0	0	9.55	0
Chip Bleach Plant	0	0	0	0	174	0	22.1	0
Lurgi Synthesis 134	0	0	0	0	0	5.48	0	0
Lurgi Synthesis 234	0	0	0	0	0	5.48	0	0
No. 3 Lime Kiln	13.5	8.65	8.65	21.0	44.0	113	2.12	53,812
No. 4 Lime Kiln	13.5	8.65	8.65	15	44.0	113	2.12	46,125
Lime Slaker	7.53	7.53	7.53	0	0	0	10.52	0
Lime Handling	4.13	4.13	4.13	0	0	0	0	0
No. 1 Power Boiler	126.2	125.0	87.1	1,551	136	516	8.88	273,588
No. 2 Power Boiler	112.8	111.7	77.9	1,386	121	873	7.94	244,483
No. 3 Power Boiler	2.04	8.16	8.16	0.64	90.2	169	5.90	128,125
No. 1 Package Boiler	2.04	8.16	8.16	0.64	90.2	204	5.90	128,125
No. 2 Package Boiler	2.74	11.0	11.0	0.87	121	274	7.94	172,199
Temporary Boiler No. 1	0.81	3.23	3.23	0.26	35.7	42.5	2.34	50,737
Temporary Boiler No. 2	0.81	3.23	3.23	0.26	35.7	42.5	2.34	50,737
No. 4 Recovery Furnace	131	80.4	62.7	1.30	162	193	19.8	367,128
No. 4 Smelt Tank	26.3	27.9	27.9	1.92	1.72	4.34	8.62	0
No. 5 Recovery Furnace	254	181	100	490	3,850	700	60.9	1,125,859
No. 5 Smelt Tank	45.00	45.01	45.01	5.88	5.28	13.30	26.43	0
No. 4 Saltcake System	2.00	2.00	2.00	0	0	0	0	0
No. 5 Saltcake System	5.10	5.10	5.10	0	0	0	0	0
Wastewater Treatment	0	0	0	0	0	0	96	0
No. 4 Power Boiler	120	157	157	100	3,775	842	20.4	969,984
Hog Fuel System	5.27	2.49	0.38	0	0	0	3.32	0
No. 1 Paper Machine	0	0	0	0	0	0	7.56	0
No. 2 Paper Machine	0	0	0	0	0	0	8.37	0
Pulp Dryer	3.73	3.73	3.73	0	0	0	5.19	0
Pulp Dryer Gas Fired	0.31	1.24	1.24	0.10	13.7	16.3	0.90	19,475
Roads Fugitive	66.2	15.5	2.70	0	0	0	0	0
Effluent Pump Generator	0.21	0.21	0.21	0.60	1.76	6.61	0.19	338
Rice Subject to MACT (diesel)	1.32	1.32	1.32	1.24	3.63	18.84	1.54	699
Rice Subject to MACT (gasoline)	0.03	0.03	0.03	0.02	16.24	0.42	0.78	40.1
Total Emissions	988.11	851.68	652.6	3,596.73	8,876.84	4166.17	490.78	3,636,169.1

Ambient Air Quality Impact Analyses

Ambient air quality impact analyses are not required because this permitting action is for revising the monitoring, recording, and reporting requirements. There is no physical or operational change that causes emissions increase as a result of this permitting action.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Nez Perce County, which is designated as attainment or unclassifiable for PM_{2.5}, PM₁₀, SO₂, NO₂, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201..... Permit to Construct (PTC) Required

The permittee has requested to remove the minimum days of operations for the Lurgi scrubber in the PTC P-06900001, issued September 22, 1999. The revised PTC is issued in accordance with IDAPA 58.01.01.220. This permitting action is processed in accordance with IDAPA 58.01.01.209.05.c.

Since the permit condition is a "State only" requirement and there is no physical or operational change that causes emissions increase as a result of this permitting action, the remainder of the regulatory analysis remains unchanged. A full presentation of regulatory requirements for the facility can be found in the SOB for current Tier I renewal T1-2014.0023, issued February 19, 2016.

Permit Conditions Review

This section describes the permit conditions for this initial permit or only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

The permit format was updated to current templates resulting in changes and added Permit Conditions 2.1 to 2.4.

Existing Permit Condition 2.1

The Lurgi scrubber shall operate a minimum of three hundred and forty-seven (347) days per year.

Revised Permit Condition 2.1 (now Permit Condition 2.5)

Whenever the chlorine dioxide plant is operating, either the Lurgi scrubber or the Fiberline Bleach Plant scrubber must be operating in accordance with the O&M manual.

Revised Permit Conditions 2.6 through 2.9.1 and 2.9.2

References to Auxiliary scrubber and chip Plant scrubber were changed to Fiberline Bleach Plant scrubber. This is the name that the facility normally uses for the alternate scrubber.

Revised Permit Condition 2.10

This permit condition summarizes the performance test requirements in the old permit in the current requirements of IDAPA 58.01.01.157 and the General Provisions of the permit.

PUBLIC REVIEW

Public Comment Period

A public comment period was made available to the public in accordance with IDAPA 58.01.01.209.01.c. During this time, comments were submitted in response to DEQ's proposed action. Refer to the chronology for public comment period dates.

A response to public comments document has been crafted by DEQ based on comments submitted during the public comment period. That document is part of the final permit package for this permitting action.

APPENDIX A – FACILITY DRAFT COMMENTS

The following comments were received from the facility on May 8, 2109:

Facility Comment:

Thanks for the opportunity to provide comments. I have a few comments related to the Fiberline Bleach Plant scrubber being utilized as an auxiliary scrubber.

1. The name of the control device is "Fiberline Bleach Plant scrubber." In table 1.1 of the revised PTC, please change the control device name to Fiberline Bleach Plant scrubber.
2. In table 2.1 of the revised PTC, please remove the "Auxiliary scrubber" from the control devices section and replace it with "Fiberline Bleach Plant scrubber."
3. In table 2.1, please change "chlorine scrubber exhaust" to "Lurgi scrubber exhaust."
4. In table 2.1, please change "Fiberline scrubber exhaust" to "Fiberline Bleach Plant scrubber exhaust."
5. In table 2.2, please remove the superscripted (c) and (d) references.
6. Permit Conditions 2.6, 2.7, 2.8, 2.9.1, 2.9.2. Please change references of "Auxiliary" to "Chip Bleach Plant"
7. Page 8 of the statement of basis. Please change the revised permit condition 2.1 to read the following.
 - a. Whenever the chlorine dioxide plant is operating, either the Lurgi scrubber or the Fiberline Bleach Plant scrubber must be operating in accordance with the O&M manual.

DEQ Response: The erroneous footnote references in Table 2.2 of the permit were removed. The requested changes regarding the naming of the scrubbers have been incorporated in to the permit and statement of basis, excluding the Chip Bleach Plant scrubber. After discussing with the facility, this is the same as the Fiberline Bleach Plant scrubber and the Fiberline Bleach Plant scrubber will be used in Permit Conditions 2.6, 2.7, 2.8, 2.9.1, and 2.9.2.

APPENDIX B – PROCESSING FEE

Company: Clearwater Paper Corp.-Pulp and Paperboard Div., Idaho
Address: 803 Mill Road
City: Lewiston
State: ID
Zip Code: 83501
Facility Contact: Clayton Steele
Title: Environmental Manager
AIRS No.: 069-00001

N Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N

N Did this permit require engineering analysis? Y/N

N Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO _x	0.0	0	0.0
SO ₂	0.0	0	0.0
CO	0.0	0	0.0
PM10	0.0	0	0.0
VOC	0.0	0	0.0
Total:	0.0	0	0.0
Fee Due	\$ 250.00		

Comments: P-2019.0019 PROJ 62212 - Lurgi scrubber language