



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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www.deq.idaho.gov

C.L. "Butch" Otter, Governor
John H. Tippetts, Director

September 3, 2015

Jay Backus
VP, Mill Operations
Clearwater Paper Corporation – PPD & CPD
803 Mill Road
Lewiston, Idaho 83501

RE: Facility ID No. 069-00001, Clearwater Paper Corporation – PPD & CPD, Lewiston
Final Permit Letter

Dear Mr. Backus:

The Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-2015.0007 Project 61473 to Clearwater Paper Corporation located at Lewiston for the pulp optimization project. This PTC is issued in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho) and is based on the certified information provided in your PTC application received January 28, 2015.

This permit is effective immediately and does not release Clearwater Paper Corporation from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

As requested, in accordance with IDAPA 58.01.01.209.05.a, the terms of the PTC will be incorporated into the Tier I permit at the time of renewal. Clearwater Paper Corporation may operate the source after the PTC is issued so long as it does not violate any terms or conditions of the existing Tier I operating permit.

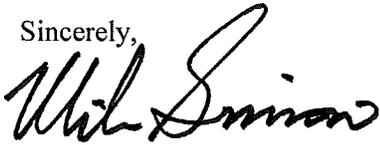
Pursuant to the Construction and Operation Notification General Provision of your permit, it is required that construction and operation notification be provided. Please provide this information as listed to DEQ's Lewiston Regional Office, 1118 F Street, Lewiston, Idaho 83501, Fax (208) 799-3451.

In order to fully understand the compliance requirements of this permit, DEQ highly recommends that you schedule a meeting with Melissa Rhein, Air Quality Analyst, at (208) 799-4370 to review and discuss the terms and conditions of this permit. Should you choose to schedule this meeting, DEQ recommends that the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any other staff responsible for day-to-day compliance with permit conditions.

Clearwater Paper Corporation, Lewiston
Page 2 of 2

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to contact Dan Pitman at (208) 373-0502 or daniel.pitman@deq.idaho.gov to address any questions or concerns you may have with the enclosed permit.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Simon". The signature is written in a cursive, flowing style.

Mike Simon
Stationary Source Program Manager
Air Quality Division

MSDP

Permit No. P-2015.0007 PROJ 61473

Enclosures

Permittee Clearwater Paper Corp. – PPD & CPD
Permit Number P-2015.0007
Project ID 61473
Facility ID 069-00001
Facility Location 803 Mill Road
Lewiston, Idaho 83501

Permit Authority

This permit (a) is issued according to the “Rules for the Control of Air Pollution in Idaho” (Rules), IDAPA 58.01.01.200–228; (b) pertains only to emissions of air contaminants regulated by the State of Idaho and to the sources specifically allowed to be constructed or modified by this permit; (c) has been granted on the basis of design information presented with the application; (d) does not affect the title of the premises upon which the equipment is to be located; (e) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (f) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; and (g) in no manner implies or suggests that the Idaho Department of Environmental Quality (DEQ) or its officers, agents, or employees assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment. Changes in design, equipment, or operations may be considered a modification subject to DEQ review in accordance with IDAPA 58.01.01.200–228.

Date Issued September 3, 2015



Dan Pitman, P.E., Permit Writer



Mike Simon, Stationary Source Manager

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1 Permit Scope

Purpose

1.1 This is the initial permit to construct (PTC) for the addition of a polysulfide generator, addition of a new continuous digester that will replace the existing 12 batch digesters, addition of a new high density bleached pulp tank and a capacity increase of the existing pulp dryer.

Pulping yields will increase on both fiber lines as a result of the new continuous digester system and the use of polysulfide cooking liquor. Pulp processing equipment will realize a production increase but emissions will remain below allowable emission rates in existing permits.

The new continuous digester and new polysulfide pulping process are more energy efficient than the existing batch digester and sodium sulfide pulping process. Therefore overall energy demand on the existing on-site combustion sources will be reduced.

Regulated Sources

Table 1.1 lists all new sources of regulated pollutant emissions authorized for construction by this permit.

Table 1.1. Regulated Sources.

Permit Section	Source	Control Equipment
2	<u>Continuous Chip Digester</u> Capacity: 1,400 ADTUBP/Day	Existing Lime Kilns, Existing NCG Incinerator, existing Recovery Furnace
	<u>Bleached High Density Pulp Tank</u> Manufacturer: TBD Capacity: 1,000 Tons	None
3	<u>Polysulfide Generator</u> Manufacturer: TBD Capacity: 1,200 gpm	<u>Scrubber:</u> Manufacturer: TBD (pressure drop and scrubbing media flowrate to be determined through source testing)

All of the other existing equipment affected by the modification are listed Table 5.1 of this permit. All of the equipment listed in Table 5.1 is already permitted and the control devices are listed in underlying permits to construct and the existing Tier I Operating Permit #T1-2010.0030. No changes to the underlying permits for these emission units are required.

2 Digesters

2.1 Process Description

Clearwater will produce wood pulp in two digester lines. One line is for wood chips and the other is for sawdust. Wood pulp is generated in the continuous digesters using polysulfide cooking liquor. The pulp is washed, bleached and otherwise treated to be used as the feedstock for pulp or paper product production.

The existing 12 batch digesters on the chip line will be replaced by a continuous digester, the existing sawdust continuous digesters remain unchanged except that polysulfide will be used as the cooking liquor. The emissions from the digesters are controlled by existing permitted equipment (lime kilns, NCG incinerator, recovery furnace). Changes are not required to those existing permits.

Operating Requirements

- 2.2** Pulp production rates shall not exceed 1,450 air dried tons of unbleached pulp (ADTUBP) per calendar day from the chip digester system.
- 2.3** Pulp production rates shall not exceed 2,020 ADTUBP per calendar day from the sawdust digester system and the chip digester system combined.

Monitoring and Recordkeeping Requirements

- 2.4** The permittee shall monitor and record pulp production of the chip digester system in units of ADTUBP per calendar day.
- 2.5** The permittee shall monitor and record the combined pulp production of the sawdust digester system and the chip digester system in units of ADTUBP per calendar day.

NSPS Requirements

- 2.6** The permittee shall comply with all applicable provisions of 40 CFR 60, subpart BBa - Standards of Performance for Kraft Pulp Mills Which Construction Commenced After May 23, 2013.

Odors

2.7 Prohibition

In accordance with 58.01.01.776.01 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.

2.8 Corrective Actions

The permittee shall maintain records of all odor complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, any corrective action taken, and the date the corrective action was taken.

3 Polysulfide Generator

3.1 Process & Control Description

A polysulfide generator will be added to the existing chemical recovery system at the Kraft Pulp Mill. Sodium sulfide in the existing pulping liquor will be converted to sodium polysulfide in a new chemical reactor. The new polysulfide generator will be designed to treat 1,200 gallons per minute of white liquor. The generator consists of a polishing filter, polished white liquor tank, filter backwash tank and polysulfide reactor. The exhaust gases from the polysulfide reactor will be treated in a wet scrubber. An existing white liquor storage tank will be utilized as a polysulfide liquor (orange liquor) storage tank.

Polysulfide is reverted back to sodium sulfide within the digesters. The spent cooking liquor will continue to be treated in the existing chemical recovery process.

Operating Requirements

3.2 The permittee shall install a wet scrubber to control emissions from the polysulfide generator vent.

3.3 Within 60 days after conducting the source test required by this section of the permit the permittee shall submit proposed pressure drop and scrubbing media flow rate operating parameters for DEQ approval based on the measured values of these parameters during the required source test.

Pressure drop and scrubbing media flow rate shall be maintained in accordance with DEQ approved parameters.

Monitoring and Recordkeeping Requirements

3.4 The permittee shall monitor and maintain records of the pressure drop across the scrubber and the scrubbing media flow rate at least once each calendar day.

Performance Testing Requirements

3.5 Within 180 days of startup of the polysulfide generator the permittee shall conduct a source test on the polysulfide generator to determine a VOC emission factor in units of pounds of VOC as compounds per air dried ton of unbleached pulp (ADTUBP). This emission factor shall be used to estimate and monitor annual emissions.

The source test shall be conducted in accordance with a DEQ approved testing protocol. The permittee may test for each VOC compound or may test for VOC as carbon and convert the measured value to VOC as compounds using a scaling factor of 1.66 (multiply VOC as carbon by 1.66).

The permittee shall monitor and record the pressure drop across the scrubber and scrubbing media flow rate at least once each 15 minutes during the source test.

4 Pulp Dryer

4.1 Process Description & Control Description

The existing Pulp Dryer is similar to a regular paper machine but produces a thicker sheet of bleached pulp that can be utilized by manufacturers to produce paper products. The Pulp Dryer consists of a wet end forming section, a natural gas fired dryer, pulp sheeting and a bailing line. Emissions from combusting natural gas and from the drying process are combined and are emitted unabated to the atmosphere through two dryer exhaust stacks.

Emission Limit

- 4.2** PM_{2.5} emissions from the pulp dryer stacks combined shall not exceed 1.91 pounds per hour, including condensable particulate matter. The permittee shall use EPA Methods 5 and 202, or EPA Methods 201A and 202, or such comparable and equivalent methods approved by DEQ, to determine compliance with the PM_{2.5} emission limit.

Performance Testing Requirements

- 4.3** Within 180 days of startup of the polysulfide generator the permittee shall conduct a PM_{2.5} source test on each pulp dryer exhaust stack.

The performance tests shall be conducted under worst-case normal conditions and in accordance with IDAPA 58.01.01.157, and the Performance Testing General Provisions of this permit. The source test shall be conducted in accordance with a DEQ approved testing protocol. The total tons of air dried pulp processed through the dryer during the test shall be monitored and recorded, and reported in the source test report.

5 Pulping Optimization Project

5.1 Process Description

Clearwater Paper Corporation is proposing to add a polysulfide generator to the existing Kraft pulping process to increase pulp yield from the raw material (wood chips and sawdust). Clearwater is also replacing the existing batch digester systems on the chip fiberline with a continuous digester system and modifying the pulp dryer. Clearwater is also making miscellaneous other changes to the chip fiberline brownstock washing, oxygen delignification and bleaching systems. These emission units are included as parts of the project and emissions changes are accounted for in the major modification assessment.

Clearwater is an existing major facility and this modification triggers the “Source Obligation” requirements at 40 CFR 52.21(r)(6). The purpose of this section of the permit is to include those requirements.

Source Obligation

5.2 The permittee shall maintain records, monitor emissions and submit reports in accordance with the source obligation requirements specified in 40 CFR 52.21(r)(6).

In accordance with 40CFR 52.21(r)(6)(i) the permittee shall document and maintain a record of the following information:

- (a) A description of the project;
- (b) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and
- (c) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under paragraph (b)(41)(ii)(c) of this section and an explanation for why such amount was excluded, and any netting calculations, if applicable.

DEQ has determined that the emission units listed in Table 5.1 are to be included as part of the project and are to be identified in paragraph (b) of this permit condition:

Table 5.1 Emissions Units Identified as Part of the Project

Polysulfide Generator	Chip Line Bleach Plant
Bleached Pulp HD Storage Tank	Sawdust Line Bleach Plant
Chip Line Digester System	No. 4 Recovery Furnace
Chip Line Brownstock Washer System	No. 5 Recovery Furnace
Chip Handling	Pulp Dryer - Process
No. 3 Lime Kiln	Pulp Dryer - Burners
No. 4 Lime Kiln	No. 1 Paper Machine
Chip Line NCG Venting	No. 1 Paper Machine Coater Burners
Sawdust Line Digester System NCG Venting	No. 2 Paper Machine
Sawdust Line Brownstock Washer System	No. 2 Paper Machine Coater Burners
Sawdust Line Decker System	Wastewater Collection and Treatment System
Oxygen Delignification System	IPP Roads - Fugitives

- 5.3** In accordance with 40 CFR 52.21(r)(6)(iii) the permittee shall monitor the emissions of VOC and TRS that are emitted by any emissions unit identified in Permit Condition 5.2, and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 10 years following resumption of regular operations after the change.
- 5.4** In accordance with 40 CFR 52.21(r)(6)(v), the owner or operator shall submit a report to DEQ and the EPA Administrator if the annual emissions, in tons per year, from the project identified under Permit Condition 5.2, exceed the baseline actual emissions (as documented and maintained pursuant to Permit Condition 5.2 (c)), by a significant amount (as defined in 40 CFR 52.21(b)(23)) for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to Permit Condition 5.2 (c). Such report shall be submitted to DEQ and the EPA Administrator within 60 days after the end of such year.

Table 5.2 shall be used for purposes of complying with these requirements.

Table 5.2 40 CFR 52.21(r)(6)(v) Emissions Information

Type of Emissions	VOC (T/yr)	TRS (T/yr)
Baseline Actual Emissions (BAE)	415.63	62.76
Projected Actual Emissions (PAE)	455.15	78.84
Excludable Emissions	47.54	10.10
Project Increase	35.76	6.78
Significant defined by 52.21(b)(23)	40	10
Annual emission rate that would exceed BAE by a significant amount	455.63	72.76

In accordance with 40 CFR 52.21(r)(6)(v), the report shall contain the following:

- (a) The name, address and telephone number of the major stationary source;
- (b) The annual emissions as calculated pursuant to Permit Condition 5.3; and
- (c) Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

- 5.5 In accordance with 40 CFR 52.21(r)(7) the information to be documented and maintained pursuant to Section 5 of this permit shall be made available for review upon request for inspection by DEQ, the EPA Administrator or the general public pursuant to the requirements contained in 40 CFR 70.4(b)(3)(viii).
- 5.6 Should there be any conflict between the requirements of Section 5 of this permit and the requirements of 40 CFR 52.21(r)(6), the requirements of 40 CFR 52.21(r)(6) shall govern, including any amendments to that regulation.

Performance Testing Requirements

- 5.7 Within 12 months of startup of the chip line continuous digester the permittee shall conduct a source test on the chip line bleach plant to determine a VOC emission factor in units of pounds of VOC as compounds per air dried ton of bleached pulp (ADTBP). This emission factor shall be used to estimate and monitor annual emissions.

The source test shall be conducted in accordance with a DEQ approved testing protocol. The permittee may test for each VOC compound or may test for VOC as carbon and convert the measured value to VOC as compounds using a scaling factor of 2.4 (multiply VOC as carbon by 2.4).

6 General Provisions

General Compliance

6.1 The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the “Rules for the Control of Air Pollution in Idaho.” The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit, the “Rules for the Control of Air Pollution in Idaho,” and the Environmental Protection and Health Act (Idaho Code §39-101, et seq.)

[Idaho Code §39-101, et seq.]

6.2 The permittee shall at all times (except as provided in the “Rules for the Control of Air Pollution in Idaho”) maintain in good working order and operate as efficiently as practicable all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.

[IDAPA 58.01.01.211, 5/1/94]

6.3 Nothing in this permit is intended to relieve or exempt the permittee from the responsibility to comply with all applicable local, state, or federal statutes, rules, and regulations.

[IDAPA 58.01.01.212.01, 5/1/94]

Inspection and Entry

6.4 Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:

- Enter upon the permittee’s premises where an emissions source is located, emissions-related activity is conducted, or where records are kept under conditions of this permit;
- Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
- Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
- As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.

[Idaho Code §39-108]

Construction and Operation Notification

6.5 This permit shall expire if construction has not begun within two years of its issue date, or if construction is suspended for one year.

[IDAPA 58.01.01.211.02, 5/1/94]

6.6 The permittee shall furnish DEQ written notifications as follows:

- A notification of the date of initiation of construction, within five working days after occurrence; except in the case where pre-permit construction approval has been granted then notification shall be made within five working days after occurrence or within five working days after permit issuance whichever is later;
- A notification of the date of any suspension of construction, if such suspension lasts for one year or more;

- A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date; and
- A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and
- A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date.

[IDAPA 58.01.01.211.03, 5/1/94]

Performance Testing

- 6.7** If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.
- 6.8** All performance 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, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.
- 6.9** Within 60 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

[IDAPA 58.01.01.157, 4/11/15]

Monitoring and Recordkeeping

- 6.10** The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Monitoring records 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 58.01.01.211, 5/1/94]

Excess Emissions

- 6.11 The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130–136 for excess emissions due to start-up, shut-down, scheduled maintenance, safety measures, upsets, and breakdowns.

[IDAPA 58.01.01.130–136, 4/5/00]

Certification

- 6.12 All documents submitted to DEQ—including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification—shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

[IDAPA 58.01.01.123, 5/1/94]

False Statements

- 6.13 No person shall knowingly make any false statement, representation, or certification in any form, notice, or report required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.125, 3/23/98]

Tampering

- 6.14 No person shall knowingly render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.126, 3/23/98]

Transferability

- 6.15 This permit is transferable in accordance with procedures listed in IDAPA 58.01.01.209.06.

[IDAPA 58.01.01.209.06, 4/11/06]

Severability

- 6.16 The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

[IDAPA 58.01.01.211, 5/1/94]