

# WestRock

See attachments for comments on draft NOC modifications



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**VIA EMAIL:** [shingo.yamazaki@ecy.wa.gov](mailto:shingo.yamazaki@ecy.wa.gov)

June 23, 2020

Mr. Shingo Yamazaki  
Washington Department of Ecology  
Industrial Section  
P.O. Box 47600  
Olympia, WA 98504-7600

**Re: Comments on Draft NOC Orders No. 8429 and 3462-AQ07 Modifications**

Dear Mr. Yamazaki:

WestRock Longview LLC (WestRock) appreciates the opportunity to submit comments on the Washington State Department of Ecology (Ecology) proposed draft NOC Orders No. 8429 and 3462-AQ07 Modifications for the WestRock Longview Mill located at 300 Fibre Way, Longview, Washington. Comments are provided in the attached redline files for the draft orders.

Please contact me at (360) 575-5570 or [roberto.artiga@westrock.com](mailto:roberto.artiga@westrock.com) for any questions you may have concerning the above.

Sincerely,

A handwritten signature in black ink, appearing to read "Roberto Artiga", written over a horizontal line.

Roberto Artiga  
Environmental Services Manager

enclosure: Draft NOC Order No. 8429 redline  
Draft NOC Order 3462-AQ07 redline

cc: Jim Taylor, WestRock  
Steve Devlin, WestRock

**WASHINGTON DEPARTMENT OF ECOLOGY  
MAIL STOP 47600  
OLYMPIA, WASHINGTON 98504**

IN THE MATTER OF AIR EMISSIONS FROM:

WestRock Longview, LLC            )       NOC ORDER No. 3462-AQ07, Modification 1)  
PO Box 639                            )       )  
Longview, WA 98632                )       )

**DESCRIPTION**

On January 8, 2019, WestRock Longview, LLC (WestRock Longview) submitted a modification request for NOC Order No. 3462-AQ07 to the Washington State Department of Ecology (Ecology). WestRock Longview requested the following revisions to NOC Order No. 3462-AQ07:

- 1) Updating of the facility name from Longview Fibre Paper and Packaging, Inc. to WestRock Longview, LLC;
- 2) Removal of retired emissions units (Recovery Furnace 15, Recovery Furnace 18, Smelt Dissolver Tank 15, Smelt Dissolver Tank 18, Lime Kiln 1, Lime Kiln 2, Power Boiler 12, Power Boiler 13, Power Boiler 16, and Cogen 23);
- 3) Updating of the opacity requirements for Recovery Furnace 19, Recovery Furnace 22, and Lime Kiln 5 to be more consistent with the New Source Performance Standards (NSPS) and/or the National Emission Standards for Hazardous Air Pollutants (NESHAPs); and
- 4) Minor corrections to typographical errors.

**FINDINGS**

Pursuant to New Source Review (NSR) regulations in the Washington Administrative Code (WAC) 173-400-110 and 173-400-111 and based upon the complete NOC Application, Ecology finds the following:

1. WestRock Longview submitted a Notice of Construction Application to Ecology which was received via mail on January 22, 2020. The application requested the modification of NOC Order 3462-AQ07. The application was determined to be complete on January 24, 2020.
2. The modification request is administrative in nature. No additional physical changes to emissions units or operations are proposed in the modification request. Changes are summarized in the "Description" section above.
3. As requested, the Order has been modified to update the facility name from Longview Fibre Paper and Packaging, Inc. to WestRock Longview, LLC.

4. As requested, the Order has been modified to remove retired emissions units (Recovery Furnace 15, Recovery Furnace 18, Smelt Dissolver Tank 15, Smelt Dissolver Tank 18, Lime Kiln 1, Lime Kiln 2, Power Boiler 12, Power Boiler 13, Power Boiler 16, and Cogen 23).
5. WestRock requested that compliance with the opacity standards for Recovery Furnace 19, Recovery Furnace 22, and Lime Kiln 5 be revised to be more consistent with the relevant NSPS and/or NESHAP opacity standards that apply to each of the units. Ecology acknowledges that opacity standards and monitoring were included in the Order as an indicator of proper operation and maintenance of the air pollution control measures for particulate matter (PM). This is also generally the case for opacity standards included in the NSPS and NESHAP standards. EPA has included corrective action triggers and specifically defined when a violation occurs for those standards. Due to the similarities in the approach for including opacity limits associated with a PM limit, Ecology concurs that a similar compliance approach will continue to meet the underlying intent of the limit and continue to require the application of BACT at each of the emission units. For Lime Kiln 5, WestRock Longview proposed an opacity standard of 25%. The NESHAP for lime kilns establishes an opacity standard of 20%. Ecology believes at 20% standard represents BACT and has included this standard in the modified Order. The revised opacity conditions include a corrective action trigger and specify that a violation occurs following exceedance of the standard for a percent of operating time during a semi-annual period. Additional information regarding the rationale for the change can be found in the application materials for the order modification request.
6. WestRock Longview requested the removal of the requirement for the use of fuel oil with sulfur content less than or equal to 0.5 percent at the recovery furnaces. Ecology is not removing the fuel oil requirement at this time.
7. Prevention of Significant Deterioration (PSD) Permit No. 01-03, Amendment 3 is the accompanying PSD permit to this Order. Ecology issued PSD Permit No. 01-03 in December 2001. The PSD permit established BACT for particulate matter, sulfur dioxide, total reduced sulfur, carbon monoxide, nitrogen oxide, and volatile organic compounds. BACT for those pollutants continues to be implemented through the PSD permit.
8. Recovery Furnace No. 22, Smelt Dissolving Tank No. 22, Lime Kiln No. 5, Evaporator No. 10, Kamyr Digester ~~and Washer~~ No. 1, and Kamyr Digester ~~and Washer~~ No. 2 shall comply with all the requirements of the new source performance standards for kraft pulp mills in 40 CFR Part 60 Subpart BB. Power Boiler No. 20 shall comply with all the requirements of the new source performance standards for fossil-fuel-fired steam generators in 40 CFR Part 60 Subpart D.
9. The project complies with applicable SEPA requirements. A determination of nonsignificance (DNS) was issued for the project on November 1, 2001. Ecology adopted the existing DNS on May 22, 2020.

**Commented [RA1]:** This finding states that Kamyr Washers No.1 and No. 2 as subject to the requirements of 40 CFR Part 60, Subpart BB. These washers at the Longview mill Kamyr digesters are diffusion washers as discussed in the SOB of the draft AOP. Per §60.280(a), brown stock washer systems are the only stock washing systems subject to the provision of this subpart. Diffusion washers are excluded from the brown stock washer system definition in §60.281.

## CONDITIONS

1. The emissions limits specified in Appendix A of this permit shall not be exceeded. The emission limits shall be monitored at the monitoring frequency and with the compliance test methods specified in Appendix A.
2. Ecology may approve alternate compliance test methods that are of equivalent stringency for any air pollutant. Compliance monitoring frequency may be adjusted by Ecology depending on compliance history.
3. The annual heat input to Recovery Furnace Nos 19 and 22 from fossil fuels shall be less than 10 percent of the potential annual heat input from all fuels. Compliance shall be determined by procedures in 40 CFR Part 60.46. Fuel oil with a sulfur content greater than 0.5 percent may not be burned in Recovery Furnace Nos. 19 and 22 except during emergency conditions, such as a malfunction in the natural gas supply line serving the area or the mill. During such conditions oil with a sulfur content greater than 0.5 percent shall only be burned during startups, shutdowns or to burn out a high bed. When oil is burned under non-emergency conditions then WestRock Longview shall demonstrate low sulfur oil content firing by keeping a record of the times, volumes, and sulfur content and maintaining at WestRock Longview fuel receipts from the fuel supplier which certify that the oil meets the fuel sulfur limit. Tall oil with sulfur content not to exceed 0.5 percent sulfur by weight may be substituted for fuel oil.
4. Sampling ports and platforms must be provided for each affected source after the final pollution control device. The ports must meet the requirements of Reference Method 1 of 40 CFR, Part 60, Appendix A. Other arrangements may be acceptable if approved by the department prior to installation. Adequate permanent and safe access to the test ports must be provided.
5. ~~NAH non~~-condensable gases (NCGs) from the digesters, multi-effect evaporators, and the condensate stripper system shall be ~~continuously~~ treated to reduce the emissions of TRS equal to the reduction achieved by thermal oxidation in a lime kiln.

The NCGs shall be burned in one of, or a combination of, the following units: Lime Kilns 3, 4 and 5, and Power Boiler 20.

To provide continuous treatment:

- a. The NCG collection and treatment system shall be properly operated and maintained at all times,
- b. Venting shall be minimized, and
- c. Venting necessary for safe/proper system operation and maintenance shall not exceed 10 hours per month.

Report venting duration and cause in the monthly air report.

**Commented [RA2]:** Edits to match the actual text in WAC 173-405-040(4)(a) where this requirement comes from

6. Ecology may require the continuous emission monitoring quality assurance plans submitted to Ecology on July 26, 1991 and December 22, 1995 to be periodically updated. The updates shall satisfy 40 CFR Part 60, Appendix F.
7. Data required to demonstrate compliance with emission limits in Appendix A shall be reported in written form to the Washington Department of Ecology Industrial Section or its authorized representative at least monthly (unless a different testing and reporting schedule has been approved by Ecology). The report shall be submitted in conformance with the time requirements included in WAC 173-405, but in no case later than thirty days after the end of the calendar month being reported. The report shall be in a format approved by Ecology. Report contents shall include but not be limited to the following:
  - a. The average daily production of machine dried unbleached pulp.
  - ~~b. Process or control equipment operating parameters.~~
  - ~~e.b.~~ The information specified for individual limits, in the units of the limit, for each pollutant monitored.
  - ~~d.c.~~ The duration and nature of any monitor down-time.
  - ~~e.d.~~ Results of any monitor audits or accuracy checks.
  - ~~f.e.~~ Results of any stack tests using approved Ecology or EPA test methods with acceptable QAQC.

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

- ~~g.f.~~ The time of the occurrence.
  - ~~h.g.~~ Magnitude of the emission or process parameters excess.
  - ~~i.h.~~ The duration of the excess.
  - ~~j.i.~~ The probable cause.
  - ~~k.j.~~ Any corrective actions taken or planned.
  - ~~l.k.~~ Any other agency contacted.
  - ~~m.l.~~ Signature of responsible person.
- ~~8. As of March 1994, WestRock Longview shall no longer use elemental chlorine as a bleaching agent in Bleach Plant Nos. 1 and 2.~~
  - ~~10.8.~~ Operating and maintenance manuals for all equipment that has the potential to affect emissions to the atmosphere shall be developed and followed. Copies of the manuals shall be available to the department. Emissions that result from a failure to follow the requirements of the manuals may be considered proof that the equipment was not properly operated and maintained.
  - ~~11.9.~~ Access to the source by the U.S. Environmental Protection Agency (EPA), department or local regulatory personnel shall be permitted upon request and presentation of proper credentials for the purpose of compliance assurance inspections. Failure to allow access is grounds for revocation of this determination of approval.

**Commented [RA3]:** WestRock suggest removing this generic open-ended statement to avoid confusion and misinterpretation. The content included in the air monthly report for Appendix A limits has been well established by many years

**Commented [RA4]:** This condition should be removed as the Bleach Plant has been permanently retired from service

~~12~~10. At all times, including periods of startup, shutdown, and upset, WestRock Longview shall, to the extent practicable, maintain and operate all equipment that is capable of contributing to air pollution in a manner consistent with good air pollution control practice for minimizing emissions. During periods of upset WestRock shall take immediate and appropriate corrective action to minimize emissions, including slowing or shutting down the emission unit.

~~13~~11. Ecology may modify conditions contained herein, pursuant to legal requirements, based on air quality, emissions monitoring results, or upon the request of WestRock Longview.

Nothing in this order shall be construed as obviating compliance with any requirement of law other than those imposed pursuant to the Washington Clean Air Act and rules and regulations thereunder.

Failure to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.

Authorization may be modified, suspended or revoked in whole or part for cause including, but not limited to, the following:

1. Violation of any terms or conditions of this authorization.
2. Obtaining this authorization by misrepresentation or failure to disclose fully all relevant facts.

The provisions of this authorization are severable and, if any provision of this authorization, or application of any provision of this authorization to any circumstance, is held invalid, the application of such provision to their circumstances and the remainder of this authorizations, shall not be affected thereby.

#### **YOUR RIGHT TO APPEAL**

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do both of the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Your appeal alone will not stay the effectiveness of this Order. Stay requests must be submitted in accordance with RCW 43.21B.320.

**ADDRESS AND LOCATION INFORMATION**

<b>Street Addresses</b>	<b>Mailing Addresses</b>
<b>Department of Ecology</b> Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	<b>Department of Ecology</b> Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
<b>Pollution Control Hearings Board</b> 1111 Israel Road SW STE 301 Tumwater, WA 98501	<b>Pollution Control Hearings Board</b> PO Box 40903 Olympia, WA 98504-0903

**MORE INFORMATION**

- **Pollution Control Hearings Board**  
[www.eho.wa.gov/Boards\\_PCHB.aspx](http://www.eho.wa.gov/Boards_PCHB.aspx)
- **Chapter 43.21B RCW, Environmental Hearings Office – Pollution Control Hearings Board**  
<http://apps.leg.wa.gov/RCW/default.aspx?cite=43.21B>
- **Chapter 371-08 WAC – Practice and Procedure**  
<http://apps.leg.wa.gov/WAC/default.aspx?cite=371-08>
- **Chapter 34.05 RCW – Administrative Procedure Act**  
<http://apps.leg.wa.gov/RCW/default.aspx?cite=34.05>
- **Chapter 70.94 RCW, Washington Clean Air Act**  
<http://apps.leg.wa.gov/RCW/default.aspx?cite=70.94>
- **Air Quality Rules**  
<https://ecology.wa.gov/Air-Climate/Air-quality/Business-industry-requirements/Permits-for-burning-industrial>

**SIGNATURES**

Reviewed by:

Signature Authority:

\_\_\_\_\_  
Shingo Yamazaki  
Environmental Engineer  
Solid Waste Management Program

\_\_\_\_\_  
James DeMay  
Industrial Section Manager  
Solid Waste Management Program

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date



### **Appendix A**

Averages over time specified in emission limits shall be determined by the arithmetic mean of measurements taken during the specified time period. Results of test runs found to be invalid shall be eliminated and results of the remaining valid test runs shall be used to find the arithmetic mean and determine compliance.

The emission limits shall be monitored at the monitoring frequency and with the compliance test methods specified for the specific emission units. Abbreviations for test methods included in unit specific emission requirements are defined as follows:

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

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

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

RM 9: Visual Determination of the Opacity of Emissions from Stationary Sources Reference Method 9 of 40 CFR, Part 60, Appendix A; or Ecology Method 98 as found in the 'Ecology Source Test Manual September 20, 2004', or an alternative approved by Ecology.

The Permittee may use an alternative method considered equivalent and/or modified test frequency with written approval from Ecology.

Unit specific requirements are:

**A1. Recovery Furnace 19 (RF 19)**

RF 19 Condition	Parameter	Limit (shall not exceed)	Monitoring and Reporting
A1.1	Opacity	Opacity greater than 30% for 2% or more of operating time during a semiannual period	<p><i>Monitoring:</i>                      Monitoring continuously using a COMS that conforms to 40 CFR Part 60, Appendix F and Appendix B, PS 1.</p> <p><i>Exceedances:</i>                      An exceedance has occurred when the average of ten consecutive 6-minute averages result in a measurement of greater than 20 percent opacity. The Permittee must implement corrective action following an exceedance.</p> <p><i>Violation Determination:</i>                      A violation occurs when opacity is greater than 30 percent for 2 percent or more of operating time during a semi-annual period while spent pulping liquor is fed.</p> <p><i>Reporting:</i>                      Report daily maximum six-minute average opacity, daily maximum hourly average opacity, and exceedances monthly. Semi-annually report percent of operating time during a semi-annual period that opacity exceeded 30 percent.</p>
A1.2	O <sub>2</sub>	No limit - Required for O <sub>2</sub> correction	Monitor continuously using a CEMS that conforms to 40 CFR Part 60, Appendix F and B, Performance Specification 3 (PS 3).

**A2. Recovery Furnace 22 (RF 22)**

RF 22 Condition	Parameter	Limit (shall not exceed)	Monitoring and Reporting
A2.1	Opacity	Opacity greater than 20% for 2% or more of operating time during a semiannual period	<p><i>Monitoring:</i>                      Monitoring continuously using a COMS that conforms to 40 CFR Part 60, Appendix F and Appendix B, PS 1.</p> <p><i>Exceedances:</i>                      An exceedance has occurred when the average of ten consecutive 6-minute averages result in a measurement of greater than 20 percent opacity. The Permittee must implement corrective action following an exceedance.</p> <p><i>Violation Determination:</i>                      A violation occurs when opacity is greater than 20 percent for 2 percent or more of operating time during a semi-annual period while spent pulping liquor is fed.</p> <p><i>Reporting:</i>                      Report daily maximum six-minute average opacity, daily maximum hourly average opacity, and exceedances monthly. Semi-annually report percent of operating time during a semi-annual period that opacity exceeded 20 percent.</p>
A2.2	O <sub>2</sub>	No limit - Required for O <sub>2</sub> correction	Monitor continuously using a CEMS that conforms to 40 CFR Part 60, Appendix F and B, Performance Specification 3 (PS 3).

**B1. Smelt Dissolving Tank 19 (SDT 19)**

<b>SDT 19 Condition</b>	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring and Reporting</b>
B1.1	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period.	See Footnote B1F.1.

Footnotes:

B1F.1 Emission control parameter monitoring is required when exhaust gases are being emitted from the smelt dissolving tank vent during combustion in the associated recovery furnace. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see Appendix B). Continuously monitor parameters specified in the plan. Continuously monitor the explosion dampers. Check explosion dampers and spout box doors at least once per shift to assure they are closed. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(8) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9.

**B2. Smelt Dissolving Tank 22 (SDT 22)**

<b>SDT 22 Condition</b>	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring and Reporting</b>
B2.1	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period.	See Footnote B1F.1.

**C1. Lime Kiln 3 (LK 3)**

<b>LK 3 Condition</b>	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring and Reporting</b>
C1.1	Opacity	25% average for more than 6 consecutive minutes in any 60 minute period.	See Footnote C1F.1.
C1.2	O <sub>2</sub>	No limit – Required for O <sub>2</sub> correction	Monitor continuously using a CEMS that conforms to 40 CFR Part 60, Appendix F and B, Performance Specification 3 (PS 3).
C1.3	Stack Dimensions	N/A	Certify stack dimensions meet discharge characteristics presented in PSD application (certification completed). Report any changes to stack diameter or height after stack dimensions are certified.

Footnotes:

C1F.1 Emission control parameter monitoring is required when exhaust gases are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see Appendix B). Continuously monitor parameters specified in the plan. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(8) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9.

**C2. Lime Kiln 4 (LK 4)**

<b>LK 4 Condition</b>	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring and Reporting</b>
C2.1	Opacity	25% average for more than 6 consecutive minutes in any 60 minute period	See footnote C1F.1.
C2.2	O <sub>2</sub>	No limit – Required for O <sub>2</sub> correction	Monitor continuously using a CEMS that conforms to 40 CFR Part 60, Appendix F and B, Performance Specification 3 (PS 3).

LK 4 Condition	Parameter	Limit (shall not exceed)	Monitoring and Reporting
C2.3	Stack Dimensions	N/A	Certify stack dimensions meet discharge characteristics presented in PSD application (certification completed). Report any changes to stack diameter or height after stack dimensions are certified.

**C3. Lime Kiln 5 (LK 5)**

LK 5 Condition	Parameter	Limit (shall not exceed)	Monitoring and Reporting
C3.1	Opacity	Opacity greater than 20% for 3% or more of operating time during a semiannual period (limit is applicable to each stack individually)	<p><i>Monitoring:</i></p> <p>Monitoring continuously using a COMS that conforms to 40 CFR Part 60, Appendix F and Appendix B, PS 1.</p> <p><i>Exceedances:</i></p> <p>An exceedance has occurred when the average of ten consecutive 6-minute averages result in a measurement of greater than 20 percent opacity. The Permittee must implement corrective action following an exceedance.</p> <p><i>Violation Determination:</i></p> <p>A violation occurs when opacity is greater than 20 percent for 3 percent or more of operating time during a semi-annual period while lime mud is fed.</p> <p><i>Reporting:</i></p> <p>Report daily maximum six-minute average opacity and exceedances monthly. Semi-annually report percent of operating time during a semi-annual period that opacity exceeded 30 percent.</p>
C3.2	O <sub>2</sub>	No limit – Required for O <sub>2</sub> correction	Monitor continuously using a CEMS that conforms to 40 CFR Part 60, Appendix F and B, Performance Specification 3 (PS 3).

**D1. Power Boiler 20 (PB 20)**

PB 20 Condition	Parameter	Limit (shall not exceed)	Monitoring and Reporting
D1.1	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period	See footnote D1F.1 and D1F.2.
D1.2	O <sub>2</sub>	No limit – Required for O <sub>2</sub> correction	Monitor continuously using a CEMS that conforms to 40 CFR Part 60, Appendix F and B, Performance Specification 3 (PS 3).
D1.3	Stack Dimensions	N/A	Certify stack dimensions meet discharge characteristics presented in PSD application (certification completed). Report any changes to stack diameter or height after stack dimensions are certified.

Footnotes:

- D1F.1 The applicable alternative emission standard for emissions due to soot blowing or grate cleaning for up to 15 minutes in 8 consecutive hours applies to this limit (WAC 173-405-040(6)).
- D1F.2 Emission control parameter monitoring is required when exhaust gases are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see Appendix B). Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(8) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9.

**E1. Neutral Sulfite Semi-Chemical Plant (NSSC)**

NSSC Condition	Parameter	Limit (shall not exceed)	Monitoring and Reporting
E1.1	VOC (as carbon)	26.4 tpy	<p>Calculate and report per table footnote below.</p> <p>The VOC emission factors for Hi Density Storage #1, Hi Density Storage #2, Lo Density Storage, Side Hill Screen, and Wash Water Chest shall be updated every fifth year.</p> <p>At least one source test shall be conducted at each emission point to supplement the existing data prior to emission factor recalculation (due to safety considerations, the Hi Density Storage #2 emission factor may be calculated based on the VOC concentration in the Hi Density Storage #1 vent). Data collection for calculation of the VOC emission factors shall conform with EPA RM 25A. See table footnote below for additional information.</p> <p><i>Reporting:</i></p> <p>The following information for the NSSC shall be included for the previous year in each January monthly report:</p> <ul style="list-style-type: none"> <li>- Hours of NSSC operation during the calendar year;</li> <li>- NSSC pulp produced during the calendar year as ODTP; and</li> <li>- VOC emitted in tons/year during the calendar year.</li> </ul>
E1.2	NCGs	N/A	<p>Gases from the new chip bin (presteaming bin), refined stock blow tank, and chemi-washer filtrate vent of the neutral sulfite semi chemical (NSSC) pulping process shall be collected and burned as NCGs.</p>
E1.3	N/A	N/A	<p>Prior to charging any material from the Kraft process into the NSSC system, WestRock Longview shall submit information to Ecology and the EPA Office of Air Quality Planning and Standards (OAQPS) for a determination of New Source Performance Standards (NSPS) for Kraft Pulp Mill (40 CFR Subpart BB) applicability. WestRock Longview shall provide any additional information requested to make the determination in a timely manner. Prior to charging material from the Kraft process into the NSSC system during the decision making period, WestRock Longview shall install and operate controls equivalent to those required by 40 CFR Part 60 Subpart BB. After receiving the OAQPS decision, Ecology shall, if necessary, issue an Order to WestRock Longview concerning compliance with the NSPS rules.</p>
E1.4	VOCs and toxics	N/A	<p>The operation and maintenance manual for the NSSC shall contain a section specifying best management practices necessary to meet toxics</p>



NSSC Condition	Parameter	Limit (shall not exceed)	Monitoring and Reporting
			and VOC emission rates included in the NOC application. Copies of the manual shall be kept on file at WestRock Longview and be available for Ecology inspection. Failure to follow the best management practices specified in the manual to meet the toxics and VOC emission rates shall be considered proof of excess emissions due to the equipment not being properly operated and maintained in accordance with RCW 70.94.152(7).

Footnote:

Compliance with NSSC VOC annual limit shall be calculated as follows:

**Tons per year (TPY) of VOC =**

(TPY of VOC from Hi Density Storage #1) + (TPY of VOC from Hi Density Storage #2) + (TPY of VOC from Lo Density Storage) + (TPY of VOC from Side Hill Screen) + (TPY of VOC from Wash Water Chest)

Tons per year of VOC from the individual emission points shall be calculated as follows during the first five years after the issuance of Order 3462-AQ07.

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

$$(\text{ton VOC as C})/\text{yr} = (\text{hrs NSSC operation})/\text{yr} \times \text{EF (lb C)/hr} \times (\text{ton})/(2000 \text{ lb})$$

Where EF (lb C)/hr is: 0.035 (lb C)/hr for Hi Density Storage #1  
 0.090 (lb C)/hr for Hi Density Storage #2  
 0.004 (lb C)/hr for Lo Density Storage

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

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

Where EF (lb C)/ODTP is: 0.099 (lb C)/ODTP for Side Hill Screen  
 0.039 (lb C)/ODTP for the Wash Water Chest

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

The method for recalculation shall be as follows:

$$\text{Updated Emission Factor} = (0.6 \times \text{EA}) + (0.4 \times \text{AF})$$

Where: EA is the emission factor used for emission calculations, and

AF is the emission factor for data collected during the five year period.

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

**Appendix B - Emission Control Compliance Demonstration Plan**

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

The summary table including all current emission control parameter levels in effect at the time of Order issuance is included below.

Unit	Fuel <sup>1</sup>	Loading Rate (TCaO/D)	Pressure Drop (inches H <sub>2</sub> O)	Scrubber Recirculation Flow (gpm)	Make-up Water Flow (gpm)
Lime Kiln 3	Gas	≤240	≥15	≥250	≥60
Lime Kiln 3	Oil	≤130	≥26	≥250	≥200

Unit	Fuel	Loading Rate (TCaO/D)	Pressure Drop (inches H <sub>2</sub> O)	Hi Pressure Flow (gpm)	Hi Pressure H <sub>2</sub> O Pressure (psig)
Lime Kiln 4	Gas	≤250	≥10	≥375	≥500
Lime Kiln 4	Oil	≤170*	≥20	≥375	≥500

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

**Commented [RAS]:** This is the most updated ECCDP requirement for LK4

Unit	Pressure Drop (inches H <sub>2</sub> O)	Venturi Scrubber Flow (gpm)	Packed Tower Flow (gpm)
Smelt Dissolver Tank 19 <sup>2</sup>	≥6	≥80	≥60
Smelt Dissolver Tank 22	≥6	≥80	≥60

Unit	Pressure Drop (inches H <sub>2</sub> O)	Scrubber Flow (gpm)	Normal Condition Wet ESP Total Power (kW)	Field Down Wet ESP Total Power (kW)
Power Boiler 20 N <sup>3</sup>	>0	≥100	≥50	≥70 <sup>4</sup>
Power Boiler 20 S <sup>3</sup>	>0	≥100	≥50	≥70 <sup>4</sup>

1. Fuel types for this appendix: *Gas* means natural gas. *Oil* means oil including reprocessed fuel oil (RFO).
2. Parameters apply to both stacks.
3. Scrubber flow rate applies to each scrubber.
4. Unit may only operate by firing natural gas when both N and both S wet ESP rectifier units are out of service.

When burning wood and/or oil, if one field goes down in the PB20 N stack and cannot be restarted within 30 minutes, then boiler rate must be cut to a maximum of 50% nominal capacity and all flow routed through PB20 S stack until the field is repaired or wood and/or oil burning is discontinued. When burning wood and/or oil, if one field goes down in the PB20 S stack and cannot be restarted in 30 minutes, then boiler rate must be cut to a maximum of 50% nominal capacity and all flow routed through PB20 N stack until the field is repaired or wood and/or oil burning is discontinued. Nominal capacity is 600,000 pounds per hour of 800 psig steam, 50% steam from wood firing and 50% steam from fossil fuel firing. Minimum power requirements do not apply when firing natural gas only.

## Appendix C

### **HISTORICAL BACKGROUND**

A Notice of Construction (NOC) application was submitted to the Washington State Department of Ecology (Ecology) as part of a Prevention of Significant Deterioration (PSD) permit application dated October 2000. The application was for a project which would increase primary paper production at WestRock Longview, LLC (WestRock Longview), formerly Longview Fibre Company, from 3,000 machine dried tons per day (MDT/D) to 3,600 MDT/D. Ecology issued PSD Permit No. 01-03 on December 10, 2001 and NOC Order No. DE 01AQIS-3294 on December 14, 2001. On February 23, 2007, Ecology issued NOC Order No. 3462-AQ07 which revised, rescinded, and replaced Order No. DE 01AQIS-3294.

### **HISTORICAL CHANGES**

The February 23, 2007 issuance of NOC Order No. 3462-AQ07 included the following changes:

1. Longview Fibre Company transferred the facility to Longview Fibre Paper and Packaging, Inc. (LFPP). References were changed to reflect the transfer.
2. References to the Ecology "Source Test Manual - Procedures for Compliance Testing, 1983" were updated as necessary to reflect the September 20, 2004 update.
3. The expiration dates of all interim limits in Order# DE 01AQIS-3294 had passed. All interim limits were removed. Also, reference methods and any related sampling protocols specified only for interim limits were removed.
4. Emission control device operating parameters were changed at several wet stacks. Control device parameters for opacity monitoring were revised to reflect the changes.
5. PB 17 was previously permanently shut down. All references to PB 17 were eliminated.
6. A period was specified after which listed Orders were superseded. The date had passed and was removed. All listed Orders are now superseded.

### **HISTORICAL FINDINGS**

Pursuant to New Source Review (NSR) regulations in the Washington Administrative Code (WAC) 173-400-110, 173-400-111 and 173-460-040, and based upon the complete NOC Application submitted by Longview Fibre Paper and Packaging, Inc. (now WestRock Longview, LLC) and the technical analysis performed by the Washington State Department of Ecology (Ecology). The following findings are from the February 23, 2007 issuance of NOC Order No. 3462-AQ-07:

1. LFPP is proposing to increase production at the pulp and paper mill near Longview, WA.
2. A Notice of Construction Application was submitted as part of a Prevention of Significant Deterioration Permit (PSD) application dated October 2000.

After submission of additional information, the application was determined to be complete on October 18, 2001. Regulations cited in this Order are those in effect on the date the Order is issued.

3. Primary paper production capacity will increase from approximately 3000 machine dried tons per day (MDT/D) to approximately 3600 MDT/D. Existing kraft production equipment, old corrugated cardboard (OCC) production equipment, and paper machines will be operated at higher capacity. Modification of some units will be necessary.
4. Emission increases due to the project resulted in the need for a PSD. The PSD addresses particulate, sulfur dioxide, total reduced sulfur, carbon monoxide, nitrogen oxides, and volatile organic compounds emission limits.
5. The application resulted in issuance of PSD permit No. 01-03 which limits many emissions from the mill. Many of the PSD limits replace requirements in Administrative Order Nos. DE OOAQIS-704, DE OOAQIS-1627, DE 01AQIS-2038, and DE 01AQIS-3076. This Order includes requirements not addressed in the PSD Permit; both new limits as a result of the project and requirements unchanged from Order Nos. OOAQIS-704 and DE 01AQIS-3076. Therefore, this Order along with PSD permit No. 01-03 supersedes Order Nos. DE OOAQIS-1627, DE 01AQIS-2038, DE 01AQIS-3076 and OOAQIS-704. Order Nos. DE OOAQIS-1627, DE 01AQIS-2038, DE 01AQIS-3076 and OOAQIS-704 are rescinded.
6. The project complies with applicable SEPA requirements. A determination of nonsignificance (DNS) was issued for the project on 11/1/01.

**WASHINGTON DEPARTMENT OF ECOLOGY  
MAIL STOP 47600  
OLYMPIA, WASHINGTON 98504**

IN THE MATTER OF AIR EMISSIONS FROM:

WestRock Longview, LLC            )     NOC ORDER No. 3462-AQ07, Modification 1)  
PO Box 639                            )  
Longview, WA 98632                )

**DESCRIPTION**

On January 8, 2019, WestRock Longview, LLC (WestRock Longview) submitted a modification request for NOC Order No. 3462-AQ07 to the Washington State Department of Ecology (Ecology). WestRock Longview requested the following revisions to NOC Order No. 3462-AQ07:

- 1) Updating of the facility name from Longview Fibre Paper and Packaging, Inc. to WestRock Longview, LLC;
- 2) Removal of retired emissions units (Recovery Furnace 15, Recovery Furnace 18, Smelt Dissolver Tank 15, Smelt Dissolver Tank 18, Lime Kiln 1, Lime Kiln 2, Power Boiler 12, Power Boiler 13, Power Boiler 16, and Cogen 23);
- 3) Updating of the opacity requirements for Recovery Furnace 19, Recovery Furnace 22, and Lime Kiln 5 to be more consistent with the New Source Performance Standards (NSPS) and/or the National Emission Standards for Hazardous Air Pollutants (NESHAPs); and
- 4) Minor corrections to typographical errors.

**FINDINGS**

Pursuant to New Source Review (NSR) regulations in the Washington Administrative Code (WAC) 173-400-110 and 173-400-111 and based upon the complete NOC Application, Ecology finds the following:

1. WestRock Longview submitted a Notice of Construction Application to Ecology which was received via mail on January 22, 2020. The application requested the modification of NOC Order 3462-AQ07. The application was determined to be complete on January 24, 2020.
2. The modification request is administrative in nature. No additional physical changes to emissions units or operations are proposed in the modification request. Changes are summarized in the "Description" section above.
3. As requested, the Order has been modified to update the facility name from Longview Fibre Paper and Packaging, Inc. to WestRock Longview, LLC.

4. As requested, the Order has been modified to remove retired emissions units (Recovery Furnace 15, Recovery Furnace 18, Smelt Dissolver Tank 15, Smelt Dissolver Tank 18, Lime Kiln 1, Lime Kiln 2, Power Boiler 12, Power Boiler 13, Power Boiler 16, and Cogen 23).
5. WestRock requested that compliance with the opacity standards for Recovery Furnace 19, Recovery Furnace 22, and Lime Kiln 5 be revised to be more consistent with the relevant NSPS and/or NESHAP opacity standards that apply to each of the units. Ecology acknowledges that opacity standards and monitoring were included in the Order as an indicator of proper operation and maintenance of the air pollution control measures for particulate matter (PM). This is also generally the case for opacity standards included in the NSPS and NESHAP standards. EPA has included corrective action triggers and specifically defined when a violation occurs for those standards. Due to the similarities in the approach for including opacity limits associated with a PM limit, Ecology concurs that a similar compliance approach will continue to meet the underlying intent of the limit and continue to require the application of BACT at each of the emission units. For Lime Kiln 5, WestRock Longview proposed an opacity standard of 25%. The NESHAP for lime kilns establishes an opacity standard of 20%. Ecology believes at 20% standard represents BACT and has included this standard in the modified Order. The revised opacity conditions include a corrective action trigger and specify that a violation occurs following exceedance of the standard for a percent of operating time during a semi-annual period. Additional information regarding the rationale for the change can be found in the application materials for the order modification request.
6. WestRock Longview requested the removal of the requirement for the use of fuel oil with sulfur content less than or equal to 0.5 percent at the recovery furnaces. Ecology is not removing the fuel oil requirement at this time.
7. Prevention of Significant Deterioration (PSD) Permit No. 01-03, Amendment 3 is the accompanying PSD permit to this Order. Ecology issued PSD Permit No. 01-03 in December 2001. The PSD permit established BACT for particulate matter, sulfur dioxide, total reduced sulfur, carbon monoxide, nitrogen oxide, and volatile organic compounds. BACT for those pollutants continues to be implemented through the PSD permit.
8. Recovery Furnace No. 22, Smelt Dissolving Tank No. 22, Lime Kiln No. 5, Evaporator No. 10, Kamyr Digester ~~and Washer~~ No. 1, and Kamyr Digester ~~and Washer~~ No. 2 shall comply with all the requirements of the new source performance standards for kraft pulp mills in 40 CFR Part 60 Subpart BB. Power Boiler No. 20 shall comply with all the requirements of the new source performance standards for fossil-fuel-fired steam generators in 40 CFR Part 60 Subpart D.
9. The project complies with applicable SEPA requirements. A determination of nonsignificance (DNS) was issued for the project on November 1, 2001. Ecology adopted the existing DNS on May 22, 2020.

**Commented [RA1]:** This finding states that Kamyr Washers No.1 and No. 2 as subject to the requirements of 40 CFR Part 60, Subpart BB. These washers at the Longview mill Kamyr digesters are diffusion washers as discussed in the SOB of the draft AOP. Per §60.280(a), brown stock washer systems are the only stock washing systems subject to the provision of this subpart. Diffusion washers are excluded from the brown stock washer system definition in §60.281.



## CONDITIONS

1. The emissions limits specified in Appendix A of this permit shall not be exceeded. The emission limits shall be monitored at the monitoring frequency and with the compliance test methods specified in Appendix A.
2. Ecology may approve alternate compliance test methods that are of equivalent stringency for any air pollutant. Compliance monitoring frequency may be adjusted by Ecology depending on compliance history.
3. The annual heat input to Recovery Furnace Nos 19 and 22 from fossil fuels shall be less than 10 percent of the potential annual heat input from all fuels. Compliance shall be determined by procedures in 40 CFR Part 60.46. Fuel oil with a sulfur content greater than 0.5 percent may not be burned in Recovery Furnace Nos. 19 and 22 except during emergency conditions, such as a malfunction in the natural gas supply line serving the area or the mill. During such conditions oil with a sulfur content greater than 0.5 percent shall only be burned during startups, shutdowns or to burn out a high bed. When oil is burned under non-emergency conditions then WestRock Longview shall demonstrate low sulfur oil content firing by keeping a record of the times, volumes, and sulfur content and maintaining at WestRock Longview fuel receipts from the fuel supplier which certify that the oil meets the fuel sulfur limit. Tall oil with sulfur content not to exceed 0.5 percent sulfur by weight may be substituted for fuel oil.
4. Sampling ports and platforms must be provided for each affected source after the final pollution control device. The ports must meet the requirements of Reference Method 1 of 40 CFR, Part 60, Appendix A. Other arrangements may be acceptable if approved by the department prior to installation. Adequate permanent and safe access to the test ports must be provided.
5. ~~NAH non~~-condensable gases (NCGs) from the digesters, multi-effect evaporators, and the condensate stripper system shall be continuously treated to reduce the emissions of TRS equal to the reduction achieved by thermal oxidation in a lime kiln.

The NCGs shall be burned in one of, or a combination of, the following units: Lime Kilns 3, 4 and 5, and Power Boiler 20.

To provide continuous treatment:

- a. The NCG collection and treatment system shall be properly operated and maintained at all times,
- b. Venting shall be minimized, and
- c. Venting necessary for safe/proper system operation and maintenance shall not exceed 10 hours per month.

Report venting duration and cause in the monthly air report.

**Commented [RA2]:** Edits to match the actual text in WAC 173-405-040(4)(a) where this requirement comes from

6. Ecology may require the continuous emission monitoring quality assurance plans submitted to Ecology on July 26, 1991 and December 22, 1995 to be periodically updated. The updates shall satisfy 40 CFR Part 60, Appendix F.
7. Data required to demonstrate compliance with emission limits in Appendix A shall be reported in written form to the Washington Department of Ecology Industrial Section or its authorized representative at least monthly (unless a different testing and reporting schedule has been approved by Ecology). The report shall be submitted in conformance with the time requirements included in WAC 173-405, but in no case later than thirty days after the end of the calendar month being reported. The report shall be in a format approved by Ecology. Report contents shall include but not be limited to the following:
  - a. The average daily production of machine dried unbleached pulp.
  - ~~b. Process or control equipment operating parameters.~~
  - ~~e.b.~~ The information specified for individual limits, in the units of the limit, for each pollutant monitored.
  - ~~d.c.~~ The duration and nature of any monitor down-time.
  - ~~e.d.~~ Results of any monitor audits or accuracy checks.
  - ~~f.e.~~ Results of any stack tests using approved Ecology or EPA test methods with acceptable QAQC.

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

- ~~g.f.~~ The time of the occurrence.
  - ~~h.g.~~ Magnitude of the emission or process parameters excess.
  - ~~i.h.~~ The duration of the excess.
  - ~~j.i.~~ The probable cause.
  - ~~k.j.~~ Any corrective actions taken or planned.
  - ~~l.k.~~ Any other agency contacted.
  - ~~m.l.~~ Signature of responsible person.
- ~~8. As of March 1994, WestRock Longview shall no longer use elemental chlorine as a bleaching agent in Bleach Plant Nos. 1 and 2.~~
  - ~~10.8.~~ Operating and maintenance manuals for all equipment that has the potential to affect emissions to the atmosphere shall be developed and followed. Copies of the manuals shall be available to the department. Emissions that result from a failure to follow the requirements of the manuals may be considered proof that the equipment was not properly operated and maintained.
  - ~~11.9.~~ Access to the source by the U.S. Environmental Protection Agency (EPA), department or local regulatory personnel shall be permitted upon request and presentation of proper credentials for the purpose of compliance assurance inspections. Failure to allow access is grounds for revocation of this determination of approval.

**Commented [RA3]:** WestRock suggest removing this generic open-ended statement to avoid confusion and misinterpretation. The content included in the air monthly report for Appendix A limits has been well established by many years

**Commented [RA4]:** This condition should be removed as the Bleach Plant has been permanently retired from service

~~12~~10. At all times, including periods of startup, shutdown, and upset, WestRock Longview shall, to the extent practicable, maintain and operate all equipment that is capable of contributing to air pollution in a manner consistent with good air pollution control practice for minimizing emissions. During periods of upset WestRock shall take immediate and appropriate corrective action to minimize emissions, including slowing or shutting down the emission unit.

~~13~~11. Ecology may modify conditions contained herein, pursuant to legal requirements, based on air quality, emissions monitoring results, or upon the request of WestRock Longview.

Nothing in this order shall be construed as obviating compliance with any requirement of law other than those imposed pursuant to the Washington Clean Air Act and rules and regulations thereunder.

Failure to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.

Authorization may be modified, suspended or revoked in whole or part for cause including, but not limited to, the following:

1. Violation of any terms or conditions of this authorization.
2. Obtaining this authorization by misrepresentation or failure to disclose fully all relevant facts.

The provisions of this authorization are severable and, if any provision of this authorization, or application of any provision of this authorization to any circumstance, is held invalid, the application of such provision to their circumstances and the remainder of this authorizations, shall not be affected thereby.

#### **YOUR RIGHT TO APPEAL**

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do both of the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Your appeal alone will not stay the effectiveness of this Order. Stay requests must be submitted in accordance with RCW 43.21B.320.

**ADDRESS AND LOCATION INFORMATION**

<b>Street Addresses</b>	<b>Mailing Addresses</b>
<b>Department of Ecology</b> Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	<b>Department of Ecology</b> Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
<b>Pollution Control Hearings Board</b> 1111 Israel Road SW STE 301 Tumwater, WA 98501	<b>Pollution Control Hearings Board</b> PO Box 40903 Olympia, WA 98504-0903

**MORE INFORMATION**

- **Pollution Control Hearings Board**  
[www.eho.wa.gov/Boards\\_PCHB.aspx](http://www.eho.wa.gov/Boards_PCHB.aspx)
- **Chapter 43.21B RCW, Environmental Hearings Office – Pollution Control Hearings Board**  
<http://apps.leg.wa.gov/RCW/default.aspx?cite=43.21B>
- **Chapter 371-08 WAC – Practice and Procedure**  
<http://apps.leg.wa.gov/WAC/default.aspx?cite=371-08>
- **Chapter 34.05 RCW – Administrative Procedure Act**  
<http://apps.leg.wa.gov/RCW/default.aspx?cite=34.05>
- **Chapter 70.94 RCW, Washington Clean Air Act**  
<http://apps.leg.wa.gov/RCW/default.aspx?cite=70.94>
- **Air Quality Rules**  
<https://ecology.wa.gov/Air-Climate/Air-quality/Business-industry-requirements/Permits-for-burning-industrial>

**SIGNATURES**

Reviewed by:

Signature Authority:

\_\_\_\_\_  
Shingo Yamazaki  
Environmental Engineer  
Solid Waste Management Program

\_\_\_\_\_  
James DeMay  
Industrial Section Manager  
Solid Waste Management Program

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

### **Appendix A**

Averages over time specified in emission limits shall be determined by the arithmetic mean of measurements taken during the specified time period. Results of test runs found to be invalid shall be eliminated and results of the remaining valid test runs shall be used to find the arithmetic mean and determine compliance.

The emission limits shall be monitored at the monitoring frequency and with the compliance test methods specified for the specific emission units. Abbreviations for test methods included in unit specific emission requirements are defined as follows:

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

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

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

RM 9: Visual Determination of the Opacity of Emissions from Stationary Sources Reference Method 9 of 40 CFR, Part 60, Appendix A; or Ecology Method 98 as found in the 'Ecology Source Test Manual September 20, 2004', or an alternative approved by Ecology.

The Permittee may use an alternative method considered equivalent and/or modified test frequency with written approval from Ecology.

Unit specific requirements are:

**A1. Recovery Furnace 19 (RF 19)**

RF 19 Condition	Parameter	Limit (shall not exceed)	Monitoring and Reporting
A1.1	Opacity	Opacity greater than 30% for 2% or more of operating time during a semiannual period	<p><i>Monitoring:</i>                      Monitoring continuously using a COMS that conforms to 40 CFR Part 60, Appendix F and Appendix B, PS 1.</p> <p><i>Exceedances:</i>                      An exceedance has occurred when the average of ten consecutive 6-minute averages result in a measurement of greater than 20 percent opacity. The Permittee must implement corrective action following an exceedance.</p> <p><i>Violation Determination:</i>                      A violation occurs when opacity is greater than 30 percent for 2 percent or more of operating time during a semi-annual period while spent pulping liquor is fed.</p> <p><i>Reporting:</i>                      Report daily maximum six-minute average opacity, daily maximum hourly average opacity, and exceedances monthly. Semi-annually report percent of operating time during a semi-annual period that opacity exceeded 30 percent.</p>
A1.2	O <sub>2</sub>	No limit - Required for O <sub>2</sub> correction	Monitor continuously using a CEMS that conforms to 40 CFR Part 60, Appendix F and B, Performance Specification 3 (PS 3).

**A2. Recovery Furnace 22 (RF 22)**

RF 22 Condition	Parameter	Limit (shall not exceed)	Monitoring and Reporting
A2.1	Opacity	Opacity greater than 20% for 2% or more of operating time during a semiannual period	<p><i>Monitoring:</i>                      Monitoring continuously using a COMS that conforms to 40 CFR Part 60, Appendix F and Appendix B, PS 1.</p> <p><i>Exceedances:</i>                      An exceedance has occurred when the average of ten consecutive 6-minute averages result in a measurement of greater than 20 percent opacity. The Permittee must implement corrective action following an exceedance.</p> <p><i>Violation Determination:</i>                      A violation occurs when opacity is greater than 20 percent for 2 percent or more of operating time during a semi-annual period while spent pulping liquor is fed.</p> <p><i>Reporting:</i>                      Report daily maximum six-minute average opacity, daily maximum hourly average opacity, and exceedances monthly. Semi-annually report percent of operating time during a semi-annual period that opacity exceeded 20 percent.</p>
A2.2	O <sub>2</sub>	No limit - Required for O <sub>2</sub> correction	Monitor continuously using a CEMS that conforms to 40 CFR Part 60, Appendix F and B, Performance Specification 3 (PS 3).

**B1. Smelt Dissolving Tank 19 (SDT 19)**

<b>SDT 19 Condition</b>	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring and Reporting</b>
B1.1	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period.	See Footnote B1F.1.

Footnotes:

B1F.1 Emission control parameter monitoring is required when exhaust gases are being emitted from the smelt dissolving tank vent during combustion in the associated recovery furnace. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see Appendix B). Continuously monitor parameters specified in the plan. Continuously monitor the explosion dampers. Check explosion dampers and spout box doors at least once per shift to assure they are closed. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(8) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9.

**B2. Smelt Dissolving Tank 22 (SDT 22)**

<b>SDT 22 Condition</b>	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring and Reporting</b>
B2.1	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period.	See Footnote B1F.1.



**C1. Lime Kiln 3 (LK 3)**

<b>LK 3 Condition</b>	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring and Reporting</b>
C1.1	Opacity	25% average for more than 6 consecutive minutes in any 60 minute period.	See Footnote C1F.1.
C1.2	O <sub>2</sub>	No limit – Required for O <sub>2</sub> correction	Monitor continuously using a CEMS that conforms to 40 CFR Part 60, Appendix F and B, Performance Specification 3 (PS 3).
C1.3	Stack Dimensions	N/A	Certify stack dimensions meet discharge characteristics presented in PSD application (certification completed). Report any changes to stack diameter or height after stack dimensions are certified.

Footnotes:

C1F.1 Emission control parameter monitoring is required when exhaust gases are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see Appendix B). Continuously monitor parameters specified in the plan. Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(8) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9.

**C2. Lime Kiln 4 (LK 4)**

<b>LK 4 Condition</b>	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring and Reporting</b>
C2.1	Opacity	25% average for more than 6 consecutive minutes in any 60 minute period	See footnote C1F.1.
C2.2	O <sub>2</sub>	No limit – Required for O <sub>2</sub> correction	Monitor continuously using a CEMS that conforms to 40 CFR Part 60, Appendix F and B, Performance Specification 3 (PS 3).

LK 4 Condition	Parameter	Limit (shall not exceed)	Monitoring and Reporting
C2.3	Stack Dimensions	N/A	Certify stack dimensions meet discharge characteristics presented in PSD application (certification completed). Report any changes to stack diameter or height after stack dimensions are certified.

**C3. Lime Kiln 5 (LK 5)**

LK 5 Condition	Parameter	Limit (shall not exceed)	Monitoring and Reporting
C3.1	Opacity	Opacity greater than 20% for 3% or more of operating time during a semiannual period (limit is applicable to each stack individually)	<p><i>Monitoring:</i> Monitoring continuously using a COMS that conforms to 40 CFR Part 60, Appendix F and Appendix B, PS 1.</p> <p><i>Exceedances:</i> An exceedance has occurred when the average of ten consecutive 6-minute averages result in a measurement of greater than 20 percent opacity. The Permittee must implement corrective action following an exceedance.</p> <p><i>Violation Determination:</i> A violation occurs when opacity is greater than 20 percent for 3 percent or more of operating time during a semi-annual period while lime mud is fed.</p> <p><i>Reporting:</i> Report daily maximum six-minute average opacity and exceedances monthly. Semi-annually report percent of operating time during a semi-annual period that opacity exceeded 30 percent.</p>
C3.2	O <sub>2</sub>	No limit – Required for O <sub>2</sub> correction	Monitor continuously using a CEMS that conforms to 40 CFR Part 60, Appendix F and B, Performance Specification 3 (PS 3).

**D1. Power Boiler 20 (PB 20)**

<b>PB 20 Condition</b>	<b>Parameter</b>	<b>Limit (shall not exceed)</b>	<b>Monitoring and Reporting</b>
D1.1	Opacity	20% average for more than 6 consecutive minutes in any 60 minute period	See footnote D1F.1 and D1F.2.
D1.2	O <sub>2</sub>	No limit – Required for O <sub>2</sub> correction	Monitor continuously using a CEMS that conforms to 40 CFR Part 60, Appendix F and B, Performance Specification 3 (PS 3).
D1.3	Stack Dimensions	N/A	Certify stack dimensions meet discharge characteristics presented in PSD application (certification completed). Report any changes to stack diameter or height after stack dimensions are certified.

Footnotes:

- D1F.1 The applicable alternative emission standard for emissions due to soot blowing or grate cleaning for up to 15 minutes in 8 consecutive hours applies to this limit (WAC 173-405-040(6)).
- D1F.2 Emission control parameter monitoring is required when exhaust gases are being emitted as a result of combustion in the unit or the unit ID fan is being operated as part of the cool down process for unit shutdown. Maintain emission control parameter hourly average rates at levels specified in the "Emission Control Compliance Demonstration Plan" (see Appendix B). Whenever any 3-hr average of a level specified in the "Emission Control Compliance Demonstration Plan" is not met, corrective action must be initiated within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(8) and may be a violation of the underlying applicable requirement. Report deviations from these operating parameters that last longer than 3 hours and corrective action in the monthly report. Compliance may also be determined by RM 9.

**E1. Neutral Sulfite Semi-Chemical Plant (NSSC)**

NSSC Condition	Parameter	Limit (shall not exceed)	Monitoring and Reporting
E1.1	VOC (as carbon)	26.4 tpy	<p>Calculate and report per table footnote below.</p> <p>The VOC emission factors for Hi Density Storage #1, Hi Density Storage #2, Lo Density Storage, Side Hill Screen, and Wash Water Chest shall be updated every fifth year.</p> <p>At least one source test shall be conducted at each emission point to supplement the existing data prior to emission factor recalculation (due to safety considerations, the Hi Density Storage #2 emission factor may be calculated based on the VOC concentration in the Hi Density Storage #1 vent). Data collection for calculation of the VOC emission factors shall conform with EPA RM 25A. See table footnote below for additional information.</p> <p><i>Reporting:</i></p> <p>The following information for the NSSC shall be included for the previous year in each January monthly report:</p> <ul style="list-style-type: none"> <li>- Hours of NSSC operation during the calendar year;</li> <li>- NSSC pulp produced during the calendar year as ODTP; and</li> <li>- VOC emitted in tons/year during the calendar year.</li> </ul>
E1.2	NCGs	N/A	<p>Gases from the new chip bin (presteaming bin), refined stock blow tank, and chemi-washer filtrate vent of the neutral sulfite semi chemical (NSSC) pulping process shall be collected and burned as NCGs.</p>
E1.3	N/A	N/A	<p>Prior to charging any material from the Kraft process into the NSSC system, WestRock Longview shall submit information to Ecology and the EPA Office of Air Quality Planning and Standards (OAQPS) for a determination of New Source Performance Standards (NSPS) for Kraft Pulp Mill (40 CFR Subpart BB) applicability. WestRock Longview shall provide any additional information requested to make the determination in a timely manner. Prior to charging material from the Kraft process into the NSSC system during the decision making period, WestRock Longview shall install and operate controls equivalent to those required by 40 CFR Part 60 Subpart BB. After receiving the OAQPS decision, Ecology shall, if necessary, issue an Order to WestRock Longview concerning compliance with the NSPS rules.</p>
E1.4	VOCs and toxics	N/A	<p>The operation and maintenance manual for the NSSC shall contain a section specifying best management practices necessary to meet toxics</p>

NSSC Condition	Parameter	Limit (shall not exceed)	Monitoring and Reporting
			and VOC emission rates included in the NOC application. Copies of the manual shall be kept on file at WestRock Longview and be available for Ecology inspection. Failure to follow the best management practices specified in the manual to meet the toxics and VOC emission rates shall be considered proof of excess emissions due to the equipment not being properly operated and maintained in accordance with RCW 70.94.152(7).

Footnote:

Compliance with NSSC VOC annual limit shall be calculated as follows:

**Tons per year (TPY) of VOC =**

(TPY of VOC from Hi Density Storage #1) + (TPY of VOC from Hi Density Storage #2) + (TPY of VOC from Lo Density Storage) + (TPY of VOC from Side Hill Screen) + (TPY of VOC from Wash Water Chest)

Tons per year of VOC from the individual emission points shall be calculated as follows during the first five years after the issuance of Order 3462-AQ07.

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

$$(\text{ton VOC as C})/\text{yr} = (\text{hrs NSSC operation})/\text{yr} \times \text{EF (lb C)/hr} \times (\text{ton})/(2000 \text{ lb})$$

Where EF (lb C)/hr is: 0.035 (lb C)/hr for Hi Density Storage #1  
 0.090 (lb C)/hr for Hi Density Storage #2  
 0.004 (lb C)/hr for Lo Density Storage

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

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

Where EF (lb C)/ODTP is: 0.099 (lb C)/ODTP for Side Hill Screen  
 0.039 (lb C)/ODTP for the Wash Water Chest

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

The method for recalculation shall be as follows:

$$\text{Updated Emission Factor} = (0.6 \times \text{EA}) + (0.4 \times \text{AF})$$

Where: EA is the emission factor used for emission calculations, and

AF is the emission factor for data collected during the five year period.

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

**Appendix B - Emission Control Compliance Demonstration Plan**

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

The summary table including all current emission control parameter levels in effect at the time of Order issuance is included below.

Unit	Fuel <sup>1</sup>	Loading Rate (TCaO/D)	Pressure Drop (inches H <sub>2</sub> O)	Scrubber Recirculation Flow (gpm)	Make-up Water Flow (gpm)
Lime Kiln 3	Gas	≤240	≥15	≥250	≥60
Lime Kiln 3	Oil	≤130	≥26	≥250	≥200

Unit	Fuel	Loading Rate (TCaO/D)	Pressure Drop (inches H <sub>2</sub> O)	Hi Pressure Flow (gpm)	Hi Pressure H <sub>2</sub> O Pressure (psig)
Lime Kiln 4	Gas	≤250	≥10	≥375	≥500
Lime Kiln 4	Oil	≤170*	≥20	≥375	≥500

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

**Commented [RAS]:** This is the most updated ECCDP requirement for LK4

Unit	Pressure Drop (inches H <sub>2</sub> O)	Venturi Scrubber Flow (gpm)	Packed Tower Flow (gpm)
Smelt Dissolver Tank 19 <sup>2</sup>	≥6	≥80	≥60
Smelt Dissolver Tank 22	≥6	≥80	≥60

Unit	Pressure Drop (inches H <sub>2</sub> O)	Scrubber Flow (gpm)	Normal Condition Wet ESP Total Power (kW)	Field Down Wet ESP Total Power (kW)
Power Boiler 20 N <sup>3</sup>	>0	≥100	≥50	≥70 <sup>4</sup>
Power Boiler 20 S <sup>3</sup>	>0	≥100	≥50	≥70 <sup>4</sup>

1. Fuel types for this appendix: *Gas* means natural gas. *Oil* means oil including reprocessed fuel oil (RFO).
2. Parameters apply to both stacks.
3. Scrubber flow rate applies to each scrubber.
4. Unit may only operate by firing natural gas when both N and both S wet ESP rectifier units are out of service.

When burning wood and/or oil, if one field goes down in the PB20 N stack and cannot be restarted within 30 minutes, then boiler rate must be cut to a maximum of 50% nominal capacity and all flow routed through PB20 S stack until the field is repaired or wood and/or oil burning is discontinued. When burning wood and/or oil, if one field goes down in the PB20 S stack and cannot be restarted in 30 minutes, then boiler rate must be cut to a maximum of 50% nominal capacity and all flow routed through PB20 N stack until the field is repaired or wood and/or oil burning is discontinued. Nominal capacity is 600,000 pounds per hour of 800 psig steam, 50% steam from wood firing and 50% steam from fossil fuel firing. Minimum power requirements do not apply when firing natural gas only.



## Appendix C

### **HISTORICAL BACKGROUND**

A Notice of Construction (NOC) application was submitted to the Washington State Department of Ecology (Ecology) as part of a Prevention of Significant Deterioration (PSD) permit application dated October 2000. The application was for a project which would increase primary paper production at WestRock Longview, LLC (WestRock Longview), formerly Longview Fibre Company, from 3,000 machine dried tons per day (MDT/D) to 3,600 MDT/D. Ecology issued PSD Permit No. 01-03 on December 10, 2001 and NOC Order No. DE 01AQIS-3294 on December 14, 2001. On February 23, 2007, Ecology issued NOC Order No. 3462-AQ07 which revised, rescinded, and replaced Order No. DE 01AQIS-3294.

### **HISTORICAL CHANGES**

The February 23, 2007 issuance of NOC Order No. 3462-AQ07 included the following changes:

1. Longview Fibre Company transferred the facility to Longview Fibre Paper and Packaging, Inc. (LFPP). References were changed to reflect the transfer.
2. References to the Ecology "Source Test Manual - Procedures for Compliance Testing, 1983" were updated as necessary to reflect the September 20, 2004 update.
3. The expiration dates of all interim limits in Order# DE 01AQIS-3294 had passed. All interim limits were removed. Also, reference methods and any related sampling protocols specified only for interim limits were removed.
4. Emission control device operating parameters were changed at several wet stacks. Control device parameters for opacity monitoring were revised to reflect the changes.
5. PB 17 was previously permanently shut down. All references to PB 17 were eliminated.
6. A period was specified after which listed Orders were superseded. The date had passed and was removed. All listed Orders are now superseded.

### **HISTORICAL FINDINGS**

Pursuant to New Source Review (NSR) regulations in the Washington Administrative Code (WAC) 173-400-110, 173-400-111 and 173-460-040, and based upon the complete NOC Application submitted by Longview Fibre Paper and Packaging, Inc. (now WestRock Longview, LLC) and the technical analysis performed by the Washington State Department of Ecology (Ecology). The following findings are from the February 23, 2007 issuance of NOC Order No. 3462-AQ-07:

1. LFPP is proposing to increase production at the pulp and paper mill near Longview, WA.
2. A Notice of Construction Application was submitted as part of a Prevention of Significant Deterioration Permit (PSD) application dated October 2000.

After submission of additional information, the application was determined to be complete on October 18, 2001. Regulations cited in this Order are those in effect on the date the Order is issued.

3. Primary paper production capacity will increase from approximately 3000 machine dried tons per day (MDT/D) to approximately 3600 MDT/D. Existing kraft production equipment, old corrugated cardboard (OCC) production equipment, and paper machines will be operated at higher capacity. Modification of some units will be necessary.
4. Emission increases due to the project resulted in the need for a PSD. The PSD addresses particulate, sulfur dioxide, total reduced sulfur, carbon monoxide, nitrogen oxides, and volatile organic compounds emission limits.
5. The application resulted in issuance of PSD permit No. 01-03 which limits many emissions from the mill. Many of the PSD limits replace requirements in Administrative Order Nos. DE OOAQIS-704, DE OOAQIS-1627, DE 01AQIS-2038, and DE 01AQIS-3076. This Order includes requirements not addressed in the PSD Permit; both new limits as a result of the project and requirements unchanged from Order Nos. OOAQIS-704 and DE 01AQIS-3076. Therefore, this Order along with PSD permit No. 01-03 supersedes Order Nos. DE OOAQIS-1627, DE 01AQIS-2038, DE 01AOIS-3076 and OOAQIS-704. Order Nos. DE OOAQIS-1627, DE 01AQIS-2038, DE 01AQIS-3076 and OOAQIS-704 are rescinded.
6. The project complies with applicable SEPA requirements. A determination of nonsignificance (DNS) was issued for the project on 11/1/01.