



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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July 23, 2019

Sam Jones  
Port Townsend Paper Corporation  
100 Mill Road  
Port Townsend, Washington 98368


**Re: Notice of Construction (NOC) Order No. 16293**

Dear Sam Jones:

Please find enclosed the Notice of Construction (NOC) Order No. 16293. This order approves the construction and operation of the Old Corrugated Container (OCC) Pulper Upgrade Project.

If you have any questions regarding this NOC order, please contact Shingo Yamazaki at (360) 407-7563 or [shingo.yamazaki@ecy.wa.gov](mailto:shingo.yamazaki@ecy.wa.gov).

Sincerely,

  
James DeMay, P.E.  
Industrial Section  
Solid Waste Management Program

Enclosure

By certified mail: 9489-0090-0027-6066-9322-44

cc: Kevin Scott



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

IN THE MATTER OF AIR EMISSIONS FROM:

Port Townsend Paper Corporation  
100 Mill Road  
Port Townsend, WA 98368

NOC Order No. 16293

## **DESCRIPTION**

Port Townsend Paper Corporation (PTPC) owns and operates a kraft pulp and paper mill at 100 Mill Road in Port Townsend, Washington. PTPC produces non-bleach kraft pulp from virgin wood chips and sawdust and produces secondary fiber by re-pulping Old Corrugated Containers (OCC).

The OCC plant was built in 1996 and went into operation in 1997.

From the Notice of Construction application:

“The process of re-pulping OCC starts with the incline conveyor which carries bales of OCC to the pulper. Once OCC has been added to the pulper, it becomes immersed in a whitewater solution where a mechanical rotor breaks the material down. Plastics and degraded fibers are culled out and the prepared OCC stock is sent to [Paper Machine 2] as a component in kraft paper.”

The existing batch tub OCC pulper has a maximum capacity of 480 oven-dried tons of pulp (ODTP) per day. The proposed continuous OCC pulper will replace the existing pulper and will have a maximum capacity of 720 ODTP per day.

As part of the proposal, the screening system used to remove undesirable fibers and non-fibrous materials will be upgraded. This upgrade will increase the screening efficiency of the facility and allow for an increase in OCC pulp yield. Additional details regarding the project are included in the Notice of Construction application.

## **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 PTPC and the technical analysis performed by the Washington State Department of Ecology (Ecology), Ecology now finds the following:

### *1. NOC Application Processing Timeline*

An initial NOC application dated October 3, 2018 was submitted by PTPC for the OCC pulper upgrade project. Ecology reviewed the initial application and found it incomplete per WAC 173-400-111 on October 19, 2018. An amended application was received by Ecology on February 21, 2019.

Ecology requested additional information regarding the project on March 19, 2019. PTPC provided Ecology with the requested information via email on April 5, 2019. Ecology reviewed the NOC application and the additional information and found the NOC application to be complete on April 9, 2019.

2. *OCC Pulper Pulp Production*

PTPC is proposing to replace an existing batch OCC pulper with a continuous OCC pulper. As part of the project, the screening system will be upgraded. The upgraded screening system will allow for more efficient separation of non-fibrous materials and non-desirable fibers from the product stream. This will increase the pulping fiber yield from 88% to 92%. The upgraded screening system will produce 47% less burnable rejects.

The proposed OCC pulper and associated processing equipment will increase the daily OCC plant maximum capacity from 480 ODTP per day to 720 ODTP per day.

The increase in production will produce a 44% increase in non-burnable rejects which will be landfilled.

**Table 1. Baseline and Projected OCC Production Rates**

<b>Production Unit</b>	<b>Baseline</b>	<b>Projected</b>
Average ADT/hr	16	23
Max ADT/hr	22	33
Average ADT/day	368	562
Max ODT/day	480	720
Max ADT/day	528	792
Average ADT/year	123,500	198,000
Max ADT/year	192,720	289,080

3. *Minor New Source Review - Applicable Emission Units*

Per WAC 173-400-110, a notice of construction application and an order of approval must be issued by the permitting authority prior to the establishment of a new source or modification.

Following a review of the NOC application and the estimated emissions from the proposed project, Ecology has determined that the proposed continuous OCC pulper is a new source and is, therefore, subject to minor new source review (mNSR) and this Order.

4. *Minor New Source Review - Inapplicable Emission Units*

The increased pulp production capacity from the proposed OCC plant will supply additional OCC pulp to Paper Machine 2 (PM2). With the existing OCC plant, PM2 produces paper with an average OCC content of 47% at an annual production rate of approximately 265,000 air dried tons (ADT) per year.

With the proposed OCC plant, the average OCC content of paper from PM2 will increase to 70% at an annual paper production rate of 285,000 ADT per year.

PM2 is capable of producing paper with OCC content in excess of 70% but is limited by the OCC pulp production capacity of the existing OCC plant; therefore, there is no physical or operational change occurring at PM2.

This project will not result in a short term increase in emissions associated with PM2, and therefore, PM2 is not being modified and mNSR is not applicable to the unit.

Paper Machine 1 (PM1) produces machine-dried pulp from the C-side batch digester in the kraft mill, which also provide pulp to PM2. The additional OCC pulp from the proposed OCC pulper will replace kraft pulp that would have gone to PM2. This will allow for more kraft pulp to be sent to PM1. The hourly maximum production rate for PM1 will remain unchanged. Annual production of dried-pulp will increase from an average of 98,000 ADTP to 115,000 ADTP. PM1 is not being modified as a result of the project and does not trigger mNSR.

There will be no additional steam demand from the kraft digesters, PM1, or the multi-effect evaporators because there will be no increase in kraft pulp production. The increase in annual production at PM2 will be accomplished with no additional steam because OCC pulp releases water more readily which requires less drying.

Because no additional steam is required, there are no emission increases from the steam producing emission units.

5. *De Minimis Emissions - Minor New Source Review Exemption*

Emission increases from the proposed OCC pulper are greater than the de minimis emission rates in WAC 173-400-110(5) for certain toxic air pollutants (TAPs); therefore, the project is not exempt from mNSR permitting.

Emissions from only the new source (proposed continuous OCC pulper) were considered when comparing emission to the de minimis levels. No netting of toxic emissions was considered. For new sources, netting of toxic emissions is only allowed during first tier review in accordance with WAC 173-460-080(3). The quantified emissions in Table 2 are for the proposed OCC pulper. Emission factors were selected based on the methodology in Finding 4.

There were no emission increases of criteria pollutants above de minimis levels. The permit application provided the required elements of a NOC application, including the TAP review required by 173-460 WAC.

**Table 2. TAP Emissions and De Minimis Levels**

<b>Pollutant</b>	<b>Selected Emission Factor [lb/ADTP]</b>	<b>Emissions from Project [lbs/year]</b>	<b>De Minimis [lbs/year]</b>
Acetaldehyde	1.16E-03	335	3.55
Chloroform	4.98E-05	14	0.417
Formaldehyde	1.53E-04	44	1.6
Methylene Chloride	2.33E-04	67	9.59

6. *Emissions Calculation*

Emissions were calculated using emission factors from National Council for Air and Stream Improvement (NCASI) technical bulletin No. 973 (*Compilation of 'Air Toxic' and Total Hydrocarbon Emissions Data for Pulp and Paper Mill Sources – A Second Update, 2010*). The emission factors were developed using emissions from two sources, Mill CC and Mill KK. Mill CC produces linerboard from miscellaneous recovered fiber. Mill KK produces linerboard from OCC which is the process employed at PTPC.

For pollutants where the emission factor for Mill CC is greater than the emission factor for Mill KK, the average emission factor was selected. Because the process at Mill KK is more representative of the operations at PTPC (OCC pulper), using the average emission factor in this scenario is conservative. For pollutants where the emission factor for Mill KK is greater than the emission factor for Mill CC, the emission factor for Mill KK was selected by Ecology.

7. *Naphthalene Exemption*

Naphthalene was not assigned an emission factor for the emissions from the PTPC OCC pulper. NCASI technical bulletin No. 973 showed no detections in air emissions for naphthalene from either of the sources (Mill CC or Mill KK). Naphthalene was not detected in liquid samples collected from Mill KK further confirming the absence of naphthalene.

8. *Prevention of Significant Deterioration (PSD) Applicability*

The facility has the potential to emit greater than 100 tpy for at least one PSD pollutant. The facility is therefore classified as a major stationary source under the PSD permitting program, and is, therefore, subject to PSD permitting consideration under WAC 173-400-720 and 40 CFR 52.21, in accordance with 40 CFR 52.21(2)(i). According to the application, the project does not trigger PSD permitting requirements. Ecology's Air Quality Program issued a PSD inapplicability determination dated May 1, 2019.

9. *Review for Compliance with Regulations*

In accordance with WAC 173-400-113, the proposed modification must meet the following criteria:

- a. The proposed modified source must comply with all applicable new source performance standards (NSPS), national emission standards for hazardous air pollutants (NESHAPs), and emission standards adopted under chapter 70.94 RCW;
- b. The proposed modified source will employ best achievable control technology (BACT) for any new pollutants or any criteria pollutant for which emissions will be increased by the project and toxic BACT (tBACT) for increases in TAP emissions above de minimis values; and
- c. The proposed modified source will not cause or contribute to a violation of any ambient air quality standards.

Each of these criteria are discussed in detail below.

10. *Compliance with Other Regulations*

The proposed project meets all applicable federal and state rules and regulations implemented by Ecology including: General Regulations for Air Pollution Sources, Chapter 173-400 WAC, 40 CFR Part 60, New Source Performance Standards, 40 CFR Part 61 and National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR Part 63.

The OCC pulper at PTPC is not an affected source of any NSPS or NESHAP. The provisions of 40 CFR Part 63, Subpart S apply to owners and operators of processes using secondary/non-wood fibers and more specifically to the Hazardous Air Pollutant (HAP) emission points in the bleaching system within those processes(40 CFR 63.440). PTPC does not have a bleaching system and, therefore, is not an affected source of the regulation.

The general emission standards in WAC 173-400-040 and WAC 173-400-060 are applicable and are included in the facility’s Air Operating Permit (AOP 000092-2).

11. *Best Available Control Technology*

As required, tBACT review has been performed for the continuous OCC pulper. The following projects and BACT determinations were found in the EPA RACT/BACT/LAER Clearinghouse or through additional internet searches. For the proposed project, BACT has been determined to be operation of the OCC pulper in a manner consistent with good air pollution control practices.

**Table 3. BACT Project Identification**

<b>Project Description</b>	<b>Date</b>	<b>Pollutant</b>	<b>BACT Determination</b>
Weyerhaeuser Paper Mill (Vallient, OK)	2008	VOC	Good O&M.
Nippon Paper (Port Angeles, WA)	2015	VOC/TAPs	No control.
International Paper Riverdale (Selma, AL)	2018	VOC	Good operating practices.
Kimberly Clark (Mobile, AL)	2018	PM	N/A

12. *Ambient Impact Analysis Requirement – Toxic Air Pollutants (TAPs)*

In accordance with WAC 173-460-040, modified TAP sources must meet the requirements of Chapter 173-460 WAC, unless they are exempt by WAC 173-400-110(5).

As shown in Table 2 above, mNSR is required for the proposed OCC pulper. As such, the new unit must comply with WAC 173-460-070 (ambient impact requirement).

The facility may demonstrate compliance with the ambient impact requirement by either showing that the emissions increase is less than the small quantity emissions rates (SQER) or through dispersion modeling. Table 4 below shows the estimated net emission increases associated with the project and the applicable SQER. The net emission increases include the emissions reduction from the removal of the existing tub OCC pulper.

**Table 4. TAP Analysis**

<b>TAP</b>	<b>Estimated Increase [lbs/yr]</b>	<b>SQER</b>	<b>Modeling Required?</b>
Acetaldehyde	111.8	71	Yes
Chloroform	4.8	8.35	No
Formaldehyde	14.7	32	No
Methylene Chloride	22.4	192	No

13. *TAP Modeling Results*

For the TAPs that require modeling, a TAPs analysis using AERSCREEN was performed to satisfy the requirements of Washington’s state toxics rule in chapter 173-460 WAC and demonstrates that the TAP emission increases as a result of the project will not exceed the Acceptable Source Impact Level (ASIL) screening thresholds. The results of the TAPs analysis are presented in Table 5 below. Ecology performed an additional AERSCREEN modeling analysis which included topographical inputs to ensure compliance with the ASIL.

**Table 5. TAP Modeling Results**

<b>Pollutant</b>	<b>Avg. Period</b>	<b>Max. Modeled Concentration (µg/m<sup>3</sup>)</b>	<b>ASIL (µg/m<sup>3</sup>)</b>	<b>% of ASIL</b>
Acetaldehyde	Annual	0.28	0.37	75

14. *State Environmental Policy Act (SEPA)*

An environmental checklist was submitted with the NOC Application which considered environmental impacts of the project as required by Chapter 43.21C of the Revised Code of Washington (RCW), also known as the State Environmental Policy Act (SEPA).

Ecology reviewed the checklist and made a Determination of Nonsignificance (DNS) which was signed on May 22, 2019 and made available for public comment at the same time as the order.

THEREFORE, it is ordered that the project, as described in said NOC permit application and other information submitted to the Ecology in reference thereto, is approved subject to the conditions listed below.

## **CONDITIONS**

1. Within one year of startup or within alternative Ecology approved timeline, PTPC must conduct a representative source test at the OCC pulper to quantify emissions of acetaldehyde, chloroform, and formaldehyde.  
  
NCASI/Weston Heated SUMMA Canister Method, NCASI Method IM/CAN/WP-99.01, or other Ecology approved method must be used.  
  
PTPC must notify Ecology in writing of its intention to conduct the source test and provide a source test plan for approval at least 60 calendar days before the source test is initially scheduled to begin.  
  
Source test report and results must be submitted to Ecology within 90 days of completion of the test. Any analytical results in addition to the specified TAPs must be included in the submitted report.
2. PTPC shall report to Ecology on a monthly basis, maximum daily OCC pulp production in oven-dried tons per day.
3. The OCC pulper must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions at all times. An operation and maintenance manual for the OCC pulper must be prepared to ensure emissions are minimized. The operation and maintenance manual must be followed. A copy of the manual must be available to Ecology during inspections and upon request.
4. PTPC shall notify Ecology in writing within thirty days of completion of the OCC Pulper Upgrade project.
5. Any activity or operation, which is undertaken by PTPC or others, in a manner which is inconsistent with the notice of construction application received by Ecology on February 21, 2019, other information submitted to Ecology in reference thereto, and this order, shall be subject to Ecology enforcement under applicable regulation. Nothing in this order shall be construed so as to relieve PTPC of its obligations under any state, local, or federal laws or regulations.
6. This approval shall become void if construction is not commenced within eighteen (18) months after receipt of this approval, or if construction of the project is discontinued for a period of eighteen (18) months.



In accordance with WAC 173-400-111(7), Ecology may extend the eighteen-month period upon a satisfactory showing by the Permittee that an extension is justified.

### **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

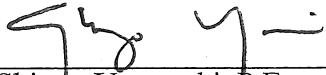
### **MORE INFORMATION**

- **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:

  
\_\_\_\_\_  
Shingo Yamazaki, P.E.  
Environmental Engineer  
Solid Waste Management Program

7/23/19  
\_\_\_\_\_  
Date

Signature Authority:

  
\_\_\_\_\_  
James DeMay, P.E.  
Industrial Section Manager  
Solid Waste Management Program

7/23/19  
\_\_\_\_\_  
Date