

Public Notice

DEQ Requests Comments on International Paper Company's Proposed Air Quality Permit Renewal

DEQ invites the public to submit written comments on the conditions of International Paper Company's proposed renewal of the air quality permit known as a Simple Air Contaminant Discharge Permit. Additional requirements for greenhouse gas emissions has been added to the draft permit and is being posted for an additional 30 day public comment period.

Summary

International Paper Company is located at 1601 NE 192nd Avenue in Portland, OR. The permittee manufactures shipping boxes. Three sheets of paper are used to make "containerboard". The outside sheets are heated by steam vents to make them pliable then joined to an inner corrugated sheet using a starch-based glue to make a paper "sandwich". The formed sheet passes over heated plates to gel the starch, trimmed, then sent to the finishing area to be formed into boxes. The sheet is cut to specified size, printed, slotted and folded, bottom flap sealed, then packaged for shipment. Approximately 23 percent of the containerboard is printed; about 5 percent of the sheets are laminated before finishing, using cold set adhesive. Scrap paper is pneumatically collected, fed through one of two cyclones and transferred to a baler. The baled scrap is sent to a paper mill for recycling. Particulate Matter from a bulk starch silo is negligible and is not included in the permit. Steam for the process is provided by a 600 HP nature gas fired boiler.

How do I participate?

To submit your comments for the public record, send them by mail, fax or email:

Air Quality Permit Coordinator
DEQ Northwest Region
700 Multnomah St., Suite 600
Portland, OR 97232-4100

Fax: (503) 229-6945

Email: NWRAQPermits@deq.state.or.us

Written comments are due by 5 p.m. Thursday Oct. 12, 2017.

About the facility

International Paper Company submitted an application for a permit renewal on Oct. 18, 2013, for permit number 26-3051-SI-01. The permittee made changes since the last permit renewal. A backup diesel tank used for the existing boiler was removed from the facility in 2013. The wax operations were relocated to the Beaverton International Paper Company facility.

A notice of intent to construct application 027723 was received on April 3, 2014 to replace the existing two-color rotary die cutter with a four-color rotary die cutter.

What air pollutants would the permit regulate?

This permit regulates emissions of the pollutants listed in the table at the end of this document.

How does DEQ determine permit requirements?

DEQ evaluates types and amounts of pollutants and the facility's location, and determines permit requirements according to state and federal regulations.

How does DEQ monitor compliance with the permit requirements?

The permittee must determine compliance with the annual plant site emission limit by monitoring monthly production. This data is used in a monthly calculation to determine emissions for each 12-consecutive month period. The permittee must retain records of all monitored parameters for at least five years. DEQ conducts compliance inspections to verify permit conditions are being met and reviews annual reports for actual emissions generated by the facility's overall operations.

What happens after the public comment period ends?

DEQ considers and responds to all comments received and may modify the proposed permit based on comments. If a facility meets all legal requirements, DEQ will issue the facility's air quality permit.



State of Oregon
Department of
Environmental
Quality

Northwest Region
Air Quality Program
700 NE Multnomah St.
Ste 600
Portland, OR 972320

Phone: 503-229-5027
800-452-4011
Fax: 503-229-6945

Contact: Tina Leppaluoto,
Permit writer

www.oregon.gov/DEQ

DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.

DEQ provides documents electronically whenever possible in order to conserve resources and reduce costs.

If you received a hard copy of this notice, please consider receiving updates via e-mail instead. Send your request to: subscriptions@deq.state.or.us

Please include your full name and mailing address so that we can remove you from our print mailing list.

Where can I get more information?

Find out more and view the application at:

<http://www.oregon.gov/deq/Get-Involved/Pages/Public-Notices.aspx>

or contact:

NWR AQ Permit Coordinator

Phone: 503-229-5582 or
800-425-4011

Fax: 503-229-6945

Email: NWRAQPermits@deq.state.or.us

View the application and related documents in person at the DEQ office in Portland. For a DEQ review appointment, call 503-229-5582.

Accessibility information

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email deqinfo@deq.state.or.us.

People with hearing impairments may call 711.

Emissions limits

Criteria Pollutants: Table 1 below presents maximum allowable emissions of criteria pollutants for the facility. The current emission limit reflects maximum emissions the facility can emit under the existing permit. The proposed emission limit reflects maximum emissions the facility would be able to emit under the proposed permit. Typically, a facility's actual emissions are less than maximum limits established in a permit; however, actual emissions can increase up to the permitted limit.

Table 1

Criteria Pollutant	Current Limit (tons/yr)	Proposed Limit (tons/yr)
Particulate matter	24	24
Small particulate matter	14	14
Fine particulate matter	N/A	9
Nitrogen oxides	39	39
Sulfur dioxide	39	39
Carbon monoxide	99	99
Volatile organic compounds	39	39
Greenhouse gas emissions	0	74,000

For more information about criteria pollutants, go to: www.epa.gov/criteria-air-pollutants

Hazardous Air Pollutants: International Paper Company does not have the potential to be a major source of hazardous air pollutants. EPA has determined that these types of businesses do not warrant such regulation.

For more information about hazardous air pollutants, go to: www.epa.gov/haps/health-effects-notebook-hazardous-air-pollutants



SIMPLE
AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Northwest Region
700 NE Multnomah St, Suite 600
Portland, Oregon 97232
503-229-5696

This permit is being issued in accordance with the provisions of ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

International Paper Company
1601 NE 192nd Avenue
Portland, Oregon 97230

INFORMATION RELIED UPON:

Application No.: 027522
Date Received: 10/18/2013

PLANT SITE LOCATION:

1601 NE 192nd Avenue
Portland, Oregon 97230

LAND USE COMPATIBILITY FINDING:

Approving Authority: City of Gresham
Approval Date: 02/17/1994

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Michael Orman, E.I.T., Northwest Region Air Quality Manager

Dated

Source(s) Permitted to Discharge Air Contaminants (OAR 340-216-8010):

Table 1 Code	Source Description	SIC/NAIC
Part B, 85	Source that would emit 10 tons/year or more of a criteria pollutant if operated uncontrolled (containerboard mfg.)	2653/322211
Part B, 13	Boiler greater than 10 MM Btu/hr, natural gas fired	4961/221330

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1.0 GENERAL EMISSION STANDARDS AND LIMITS

- 1.1. Visible Emissions** The permittee must comply with the following visible emission limits from air contaminant sources other than fugitive emission sources, as applicable. Opacity must be measured as a six-minute block average using EPA Method 9, a continuous opacity monitoring system (COMS) installed and operated in accordance with the DEQ Continuous Monitoring Manual or 40 CFR part 60, or an alternative monitoring method approved by DEQ that is equivalent to EPA Method 9. Visible emissions from any air contaminant source must not equal or exceed an average of 20 percent opacity.
- 1.2. Particulate Matter Emissions** The permittee must comply with the following particulate matter emission limits, as applicable:
- a. Particulate matter emissions from any fuel burning equipment installed, constructed, or modified on or after June 1, 1970 but before April 16, 2015 must not exceed 0.14 grains per dry standard cubic foot, corrected to 12% CO₂ or 50% excess air.
 - b. Particulate matter emissions from any fuel burning equipment installed, constructed, or modified on or after April 16, 2015 must not exceed 0.10 grains per dry standard cubic foot, corrected to 12% CO₂ or 50% excess air.
 - c. Particulate matter emissions from any air contaminant source installed, constructed, or modified on or after June 1, 1970 but before April 16, 2015, other than fuel burning equipment and fugitive emission sources, must not exceed 0.14 grains per dry standard cubic foot.
 - d. Particulate matter emissions from any air contaminant source installed, constructed, or modified on or after April 16, 2015, other than fuel burning equipment and fugitive emission sources, must not exceed 0.10 grains per dry standard cubic foot.
- 1.3. Fugitive Emissions** The permittee must take reasonable precautions to prevent fugitive dust emissions, as measured by EPA method 22, by:
- a. Using, where possible, water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or clearing of land;
 - b. Applying water or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - c. Enclosing (full or partial) materials stockpiles in cases where application of water or other suitable chemicals are not sufficient to prevent particulate matter from becoming airborne;

- d. Installing and using hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
- e. Installing adequate containment during sandblasting or other similar operations;
- f. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
- g. Promptly removing earth or other material that does or may become airborne from paved streets; and
- h. Developing a DEQ approved fugitive emission control plan upon request by DEQ if the above precautions are not adequate and implementing the plan whenever fugitive emissions leave the property for more than 18 seconds in a six-minute period.

1.4. Particulate Matter Fallout The permittee must not cause or permit the deposition of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person.

1.5. Nuisance and Odors The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by DEQ personnel.

2.0 OPERATION AND MAINTENANCE REQUIREMENTS

2.1. Work practices The permittee must perform a maintenance service on the boiler at least once in every 2-year period. As a minimum, the service must include an inspection of the burners and refractory chamber, cleaning, adjustment, and repair as necessary. For water tube boilers, the service must include flushing the tubes.

3.0 PLANT SITE EMISSION LIMITS

- 3.1. Plant Site Emission Limits (PSEL)** The permittee must not cause or allow plant site emissions to exceed the following:

Pollutant	Limit	Units
PM	24	tons per year
PM ₁₀	14	tons per year
PM _{2.5}	9	tons per year
SO ₂	39	tons per year
NO _x	39	tons per year
CO	99	tons per year
VOC	39	tons per year
GHGs (CO ₂ e)	74,000	tons per year

- 3.2. Annual Period** The annual plant site emissions limits apply to any 12-consecutive calendar month period.

4.0 COMPLIANCE DEMONSTRATION

- 4.1. PSEL Compliance Monitoring** The permittee must demonstrate compliance with the annual VOC PSEL for each 12 consecutive calendar month period based on the following formula:

$$E_{\text{VOC-A}} = \sum(\text{EF} \times \text{P}) / 2000 \text{ lbs/ton}$$

where:

E = pollutant emissions (tons/yr);
 EF = pollutant emission factor (see Condition 11.0);
 P = process production (see Condition 5.1);

- 4.2. Mass Balance with controls** Annual VOC emissions for each 12 consecutive calendar month period are calculated by the following formula:

$$E_{\text{VOC-A}} = [\sum(\text{C}_X * \text{K}_X) - \text{W}] / 2000 \text{ lbs/ton}$$

where:

E_{VOC-A} = Annual VOC emissions in tons
 C = Material usage for the period in gallons
 K = VOC content (lbs VOC/gallon)
 X = Subscript X represents a specific material
 W = Weight of VOC shipped offsite in lbs

- 4.3. Mass Balance Finishing Inks** Annual VOC emissions for each 12 consecutive calendar month period are calculated by the following formula:

$$E_{(\text{ton})} = \frac{\text{lbs Ink} \times \text{lbs VOC}}{\text{lbs Ink}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}}$$

- 4.4. Emission Factors** The permittee must use the default emission factors provided in Condition 11.0 for calculating pollutant emissions, unless alternative emission factors are approved in writing by DEQ. The permittee may request or DEQ may require using alternative emission factors provided they are based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by DEQ.

5.0 RECORDKEEPING REQUIREMENTS

- 5.1. Operation and Maintenance** The permittee must maintain the following records related to the operation and maintenance of the plant and associated air contaminant control devices on a monthly basis:
- a. Quantity of natural gas combusted, in million cubic feet;
 - b. Hours of operations of the corrugators;
 - c. Throughput of material in corrugators, lbs/MSF;
 - d. Quantity of inks used, in pounds;
 - e. Quantity of scrap paper/containerboard baled, in tons;
 - f. Weighted average VOC content of inks, in percent;
 - g. Gallons of VOC containing materials used;
 - h. Gallons of VOC waste material shipped off site;
 - i. Calculations required in Conditions 4.1 and 4.2.
- 5.2. Excess Emissions** The permittee must maintain records of excess emissions as defined in OAR 340-214-0300 through 340-214-0340 (recorded on occurrence). Typically, excess emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance. In many cases, excess emissions are evident when visible emissions are greater than 20% opacity as a six-minute block average. If there is an ongoing excess emission caused by an upset or breakdown, the permittee must cease operation of the equipment or facility no later than 48 hours after the beginning of the excess emissions, unless continued operation is approved by DEQ in accordance with OAR 340-214-0330(4).

- 5.3. Complaint Log** The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.
- 5.4. Retention of Records** Unless otherwise specified, the permittee must retain all records for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application and make them available to DEQ upon request. The permittee must maintain the two (2) most recent years of records onsite.

6.0 REPORTING REQUIREMENTS

- 6.1. Excess Emissions** The permittee must notify DEQ of excess emissions events if the excess emission is of a nature that could endanger public health.
- a. Such notice must be provided as soon as possible, but never more than one hour after becoming aware of the problem. Notice must be made to the regional office identified in Condition 9.3 by e-mail, telephone, facsimile, or in person.
 - b. If the excess emissions occur during non-business hours, the permittee must notify DEQ by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.
 - a. The permittee must also submit follow-up reports when required by DEQ.
- 6.2. Greenhouse Gas Registration and Reporting** If the calendar year emission rate of greenhouse gases (CO₂e) is greater than or equal to 2,756 tons (2,500 metric tons), the permittee must register and report its greenhouse gas emissions with DEQ in accordance with OAR 340-215.
- 6.3. Annual Report** For each year this permit is in effect, the permittee must submit to DEQ by **February 15** two (2) copies of the following information for the previous calendar year:
- a. Operating parameters:
 - i. Calculations required in Conditions 4.1, 4.2 and 4.3 (these may be in a form of a spreadsheet).
 - ii. The date of the last boiler tune-up, and any major repairs completed.
 - iii. Summary of annual pollutant emissions determined each month in accordance with Condition 5.1.

- b. Records of all planned and unplanned excess emissions events.
- c. Summary of complaints relating to air quality received by permittee during the year.
- d. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.
- e. List of major maintenance performed on pollution control equipment.

- 6.4. Notice of Change of Ownership or Company Name** The permittee must notify DEQ in writing using a DEQ “Transfer Application Form” within 60 days after the following:
- a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or
 - b. Sale or exchange of the activity or facility.
- 6.5. Construction or Modification Notices** The permittee must notify DEQ in writing using a DEQ “Notice of Intent to Construct Form,” or other permit application form and obtain approval in accordance with OAR 340-210-0205 through 340-210-0250 before:
- a. Constructing, installing, or establishing a new stationary source that will cause an increase in any regulated pollutant emissions;
 - b. Making any physical change or change in operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or
 - c. Constructing or modifying any air pollution control equipment.

7.0 ADMINISTRATIVE REQUIREMENTS

- 7.1. Permit Renewal Application** The permittee must submit the completed application package for renewal of this permit **120 days** prior to the expiration date. The permittee must submit two (2) copies of the application to the DEQ Permit Coordinator listed in Condition 9.2.
- 7.2. Permit Modifications** The permittee must submit an application for a modification of this permit not less than **60 days** prior to the source modification. A special activity fee must be submitted with an application for the permit modification. The fees and two (2) copies of the application must be submitted to the Business Office of DEQ listed in Condition 9.1.

8.0 FEES

- 8.1. Annual Compliance Fee** The permittee must pay the Annual Fee specified in OAR 340-216-8020, Table 2, Part 2 for a Simple ACDP by **December 1** of each year this permit is in effect. An invoice indicating the amount, as determined by DEQ regulations, will be mailed prior to the above date. **Late fees in accordance with Part 4 of the table will be assessed as appropriate.**
- 8.2. Change of Ownership or Company Name Fee** The permittee must pay the non-technical permit modification fee specified in OAR 340-216-8020, Table 2, Part 3(a) with an application for changing the ownership or the name of the company.
- 8.3. Special Activity Fees** The permittee must pay the special activity fees specified in OAR 340-216-8020, Table 2, Part 3 (b through k) with an application to modify the permit.

9.0 DEQ CONTACTS / ADDRESSES

- 9.1. Business Office** The permittee must submit payments for invoices, applications to modify the permit, and any other payments to DEQ's Business Office:
Department of Environmental Quality
Business office
700 NE Multnomah St Ste 600
Portland OR 97232-4100
- 9.2. Permit Coordinator** The permittee must submit all Notices and applications that do not include payment to the Northwest Region's Permit Coordinator:
DEQ Northwest Region
700 NE Multnomah St., Suite 600
Portland, Oregon 97232
503-229-5582
- 9.3. Report Submittals** Unless otherwise notified, the permittee must submit all reports (annual reports, source test plans and reports, etc.) to DEQ's Northwest Region. If you know the name of the Air Quality staff member responsible for your permit, please include it.
Northwest Region Air Quality
700 NE Multnomah St., Suite 600
Portland, Oregon 97232
503-229-5696
- 9.4. Web Site** Information about air quality permits and DEQ's regulations may be obtained from the DEQ web page at www.deq.state.or.us

10.0 GENERAL CONDITIONS AND DISCLAIMERS

- 10.1. Permitted Activities** This permit allows the permittee to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, or is revoked.
- 10.2. Other Regulations** In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by DEQ.
- 10.3. Conflicting Conditions** In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.
- 10.4. Masking of Emissions** The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.
- 10.5. DEQ Access** The permittee must allow DEQ's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.
- 10.6. Permit Availability** The permittee must have a copy of the permit available at the facility at all times.
- 10.7. Open Burning** The permittee may not conduct any open burning except as allowed by OAR 340, division 264.
- 10.8. Asbestos** The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 for all activities involving asbestos-containing materials, including, but not limited to, demolition, renovation, repair, construction, and maintenance.
- 10.9. Property Rights** The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

**10.10. Permit
Expiration**

- a. A source may not be operated after the expiration date of the permit, unless any of the following occur prior to the expiration date of the permit:
- i. A timely and complete application for renewal or for an Oregon Title V Operating Permit has been submitted, or
 - ii. Another type of permit (ACDP or Oregon Title V Operating Permit) has been issued authorizing operation of the source.
- b. For a source operating under an ACDP or Oregon Title V Operating Permit, a requirement established in an earlier ACDP remains in effect notwithstanding expiration of the ACDP, unless the provision expires by its terms or unless the provision is modified or terminated according to the procedures used to establish the requirement initially.

**10.11. Permit
Termination,
Revocation,
or
Modification**

DEQ may modify or revoke this permit pursuant to OAR 340-216-0082 and 340-216-0084.

11.0 EMISSION FACTORS

Emissions device or activity	Pollutant	Emission Factor (EF)	EF units	EF reference
Natural Gas Combustion	PM/PM ₁₀ / PM _{2.5}	2.5	lbs/MMCF	DEQ AQ-EF05
	SO ₂	1.7	lbs/MMCF	DEQ AQ-EF05
	NO _x	100.0	lb/MMCF	AP-42
	CO	84.0	lb/MMCF	AP-42
	VOC	5.5	lb/MMCF	AP-42
Corrugator	VOC	0.0035	lb/MSF	Emission test 2016
Trim System Cyclone	PM	0.60	lb/Ton Scrap	Stack Test 1994
	PM ₁₀	0.23	1b/Ton Scrap	Engineering Estimate 2017
	PM _{2.5}	0.32	lb/Ton Scrap	Engineering Estimate 2017

12.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit	NSR	New Source Review
ASTM	American Society for Testing and Materials	O ₂	oxygen
AQMA	Air Quality Maintenance Area	OAR	Oregon Administrative Rules
calendar year	The 12-month period beginning January 1st and ending December 31 st	ORS	Oregon Revised Statutes
CFR	Code of Federal Regulations	O&M	operation and maintenance
CO	carbon monoxide	Pb	lead
CO _{2e}	carbon dioxide equivalent	PCD	pollution control device
DEQ	Oregon Department of Environmental Quality	PM	particulate matter
dscf	dry standard cubic foot	PM ₁₀	particulate matter less than 10 microns in size
EPA	US Environmental Protection Agency	PM _{2.5}	particulate matter less than 2.5 microns in size
FCAA	Federal Clean Air Act	ppm	part per million
Gal	gallon(s)	PSD	Prevention of Significant Deterioration
GHG	greenhouse gas	PSEL	Plant Site Emission Limit
gr/dscf	grains per dry standard cubic foot	PTE	Potential to Emit
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040	RACT	Reasonably Available Control Technology
I&M	inspection and maintenance	scf	standard cubic foot
lb	pound(s)	SER	Significant Emission Rate
MMBtu	million British thermal units	SIC	Standard Industrial Code
NA	not applicable	SIP	State Implementation Plan
NESHAP	National Emissions Standards for Hazardous Air Pollutants	SO ₂	sulfur dioxide
NO _x	nitrogen oxides	Special Control Area	as defined in OAR 340-204-0070
NSPS	New Source Performance Standard	VE	visible emissions
		VOC	volatile organic compound
		year	A period consisting of any 12-consecutive calendar months



State of Oregon
Department of
Environmental
Quality

Simple AIR CONTAMINANT DISCHARGE PERMIT REVIEW REPORT

Department of Environmental Quality
Northwest Region

Source Information:

SIC	2653/4961
NAICS	322211/221330

Source Categories (Table 1 Part, code)	Part B, 85
Public Notice Category	II

Compliance and Emissions Monitoring Requirements:

FCE	
Compliance schedule	
Unassigned emissions	
Emission credits	
Special Conditions	

Source test [date(s)]	
COMS	
CEMS	
PEMS	
Ambient monitoring	

Reporting Requirements

Annual report (due date)	February 15 th
Quarterly report (due dates)	

Monthly report (due dates)	
Excess emissions report	
Other (specify)	

Air Programs

Synthetic Minor (SM)	
SM -80	
NSPS (list subparts)	
NESHAP (list subparts)	
Part 68 Risk Management	
CFC	

NSR	
PSD	
RACT	
TACT	
Other (specify)	

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PERMITTING

PERMITTEE IDENTIFICATION

1. International Paper Company
Portland Containerboard Packaging
1601 NE 192nd Avenue
Portland, Oregon 97230

PERMITTING ACTION

2. The proposed permit is a renewal of an existing Air Contaminant Discharge Permit (ACDP) that was issued on 04/15/2009 and was originally scheduled to expire on 02/01/2014. The existing ACDP remains in effect until final action is taken on renewal application because the permittee submitted a timely and complete application for renewal.

Based on a recent review of the facility's greenhouse gas emissions. DEQ has determined the facility is subject to the reporting requirement of 2,500 (CO₂e) for greenhouse gas emissions. Therefore a greenhouse gas plant site emission limit and the reporting requirements are being added to the permit during this permit renewal. A 30 day public notice was completed from May 25, 2017 through June 30, 2017, which did not include the greenhouse gas plant site emission limit nor the reporting requirements. A new public comment period will be held for public review and feedback.

OTHER PERMITS

3. Other permits issued or required by the DEQ for this source include a general storm water permit, 1200 COLS.

ATTAINMENT STATUS

4. The source is located in a maintenance area for CO and Ozone. Ozone precursors NO_x and VOC are regulated pollutants. This source is a minor source of CO, NO_x and VOC. The area is in attainment for all other pollutants.

SOURCE DESCRIPTION

OVERVIEW

5. The permittee manufactures shipping boxes. Three sheets of paper are used to make “containerboard”. The outside sheets are heated by steam vents to make them pliable, and then joined to an inner corrugated sheet using a starch-based glue to make a paper “sandwich”. The formed sheet passes over heated plates to gel the starch, trimmed, then sent to the finishing area to be formed into boxes. The sheet is cut to specified size, printed, slotted and folded, bottom flap sealed, then packaged for shipment. Approximately 23% of the containerboard is printed; about 5% of the sheets are laminated before finishing, using cold set adhesive. The wax operations have been moved to the Beaverton Facility. This facility is considered a backup for the wax operations. The wax material is no longer stored on site and the existing wax tanks may be removed from their operations in the future.

Scrap paper is pneumatically collected, fed through one of two cyclones, and transferred to a baler. The baled scrap is sent to a paper mill for recycling. PM from a bulk starch silo is negligible and is not included in the permit.

Steam for the process is provided by a 25 MM Btu/hr natural gas fired boiler. The facility also has four natural gas fired heaters which are not included in the permit. The facility was built in 1980.

6. Changes were made to the facility’s equipment and processes since the last permit renewal. The permittee submitted a Notice of Intent to Construct application, number 027723 in April 2014 to replace the two-color rotary die cutter with a four-color rotary die cutter.

The natural gas fired boiler was equipped with a backup diesel tank. The permittee removed the backup diesel tank in 2013 and has no plans to bring it back on site.

The wax operations have been moved to the Beaverton Facility. This facility is considered a backup for the wax operations. The wax material is no longer stored on site and the existing wax tanks may be removed from their operations in the future.

PROCESS AND CONTROL DEVICES

7. Existing air contaminant sources at the facility consist of the following:
 - a. One corrugator, installed in 1980;
 - b. Two in-line cyclones on the scrap collection system, installed 1980 and 1989;
 - c. Printing/finishing station, installed 1980;
 - d. One Cleaver Brooks boiler, 25 MM Btu/hr, installed in 1980;

- e. One four-color rotary die cutter, installed 2014;
- f. Two, two-color rotary die cutters, installed 1980 and 2001.

COMPLIANCE

- 8. The facility was inspected on 09/19/2013 and found to be in compliance with permit conditions.
- 9. During the prior permit period there were no complaints recorded for this facility.
- 10. No enforcement actions have been taken against this source since the last permit renewal.

EMISSIONS

- 11. Proposed PSEL information:

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limits (PSEL)		
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase (tons/yr)
PM	0	0	0	24	24	0
PM ₁₀	0	0	0	14	14	0
PM _{2.5}	N/A	N/A	9	N/A	9	9
SO ₂	0	0	0	39	39	0
NO _x	0	0	0	39	39	0
CO	0	0	0	99	99	0
VOC	0	0	0	39	39	0
GHG (CO ₂ e)	0	N/A	0	N/A	74,000	74,000

- a. The netting basis is zero for Simple ACDPs sources in accordance with OAR 340-222-0040(3).
- b. Anticipated emissions are the same as the previous PSEL except for the GHG PSEL which was added during this permit renewal. The emissions are based on the manufacture of 1.6 million feet of containerboard per year and the use of 342,000 pounds of ink with an average VOC content of 5%, by weight.
- c. An Engineer Study was conducted in early 2017 for collection efficiency using a low efficiency cyclone for particulate to verify emission factors for PM/PM₁₀ currently in the permit and to establish a PM_{2.5} emission factor. The PM emission factor was corrected during this permit renewal based on calculations from 1994 source test.

The PM₁₀ and PM_{2.5} emission factors were developed by using a cyclone catch sieve test conducted at IP's Union Gap, Washington container plant in 2016. See document referenced as GDRives: PM2.5 Trim Cyclone Estimate Rives, Rev March 15, 2017 located in the file.

PM total filterable is 0.60 lb/ton baled scrap, PM10 is 38% of total filterable PM and PM2.5 is 28% of total filterable PM.

- d. For Simple ACDPs, The proposed PSELs for all pollutants are equal to the Generic PSEL in accordance with OAR 340-216-0064(3)(b).
- e. In a rulemaking action effective May 1, 2011, DEQ adopted PM_{2.5} as a new criteria air pollutant, so a PM_{2.5} PSEL is being added in this permit action. PM_{2.5} has always been a fraction of PM, so the addition of the PM_{2.5} PSEL to the permit does not represent an emission rate increase by the permittee.
- f. The PSEL is a federally enforceable limit on the potential to emit.

SIGNIFICANT EMISSION RATE ANALYSIS

12. For each pollutant, the proposed Plant Site Emission Limit is less than the Netting Basis plus the significant emission rate, thus no further air quality analysis is required.

TITLE V MAJOR SOURCE APPLICABILITY

A major source is a facility that has the potential to emit 100 tons/yr or more of any criteria pollutant or 10 tons/yr or more of any single HAP or 25 tons/yr or more of combined HAPs.

A source who's potential to emit is less than major source thresholds is called a true minor source.

CRITERIA POLLUTANTS

13. This facility is a minor source of criteria pollutant emissions.

HAZARDOUS AIR POLLUTANTS

14. This source is a minor source of hazardous air pollutants. Glycol ethers from the use of inks and formaldehyde from starch additives total less than two tons/yr.

ADDITIONAL REQUIREMENTS

NSPS APPLICABILITY

15. 40 CFR Part 60, Subpart Dc, is not applicable to the source because the boiler was installed prior to promulgation of the rule.

NESHAPS/MACT APPLICABILITY

16. 40 CFR Part 63, Subpart KK applies to major sources in the printing and publishing industry. This facility is an area source and is therefore not subject to the NESHAP.

RACT APPLICABILITY

17. The facility is located in the Portland AQMA, but it is not one of the listed source categories in OAR 340-232-0010, thus the RACT rules do not apply.

TACT APPLICABILITY

18. The source is meeting the State's TACT/Highest and Best Rules by pneumatically collecting containerboard scraps to decrease PM emissions and conducting routine maintenance and performing regular tunings on the boiler.

SOURCE TESTING

PRIOR TESTING RESULTS

19. The results of the most recent source tests are listed below:

Emission Device	Test Date	Production Rate	Pollutant	Measured Value
Corrugator	10/25/1994	204,000 ft ² /hr	VOC	0.0082 lb VOC/1000 ft ²
Scrap cyclones	10/25/1994	1,341 lb/bale	PM	0.83 lb PM/ton of scrap

- a. The value given for the corrugators is a weight average.
- b. The value given for the cyclones is an average. Cyclone 2 feeds into cyclone 1.
- c. A study was completed in 4/2017 which resulted in a correction. The weighted average was changed from 0.83 lb PM/ton of scrap to 0.60 lb PM/ton of baled scrap.

PUBLIC NOTICE

20. Pursuant to OAR 340-216-0064(3)(a), issuance of Simple Air Contaminant Discharge Permits require public notice in accordance with OAR 340-209-0030(3)(b), which requires DEQ to provide notice of the proposed permit action and a minimum of 30 days for interested persons to submit written comments. **The public notice was emailed/mailed on Sept. 5, 2017 and the comment period will end at 5 p.m. Thursday Oct. 12, 2017.**

- Additional requirements for greenhouse gas emissions has been added to the draft permit and is being posted for an additional 30 day public comment period.



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FUEL COMBUSTION:

Nat Gas Fuel Firing, Maximum Potential Operating Hours/yr: 8,760 hrs/yr
Nat Gas Fuel Firing, Maximum Hourly Firing Capacity: 0.025 MMCF/hr
Maximum Potential Annual Firing Rate (PTE): 220 MMCF/yr

Natural Gas Fuel Combustion Emissions				
Pollutant	Emission Factor	Units	Reference	Annual ton/yr (PTE)
PM/PM ₁₀ /PM _{2.5}	7.6	lb/MMCF	AP-42	0.8
SO ₂	0.6	lb/MMCF	AP-42	0.1
NO _x	100	lb/MMCF	AP-42	11
CO	84	lb/MMCF	AP-42	9.2
VOC	5.5	lb/MMCF	AP-42	0.6

PROCESSES:

Corrugator, Maximum Potential Operating Hours/yr: 8,760 hrs/yr
Corrugator Maximum Hourly Production Capacity: 490,000 SF/hr
Corrugator Maximum Annual Production Capacity (PTE) 4.29E+09 SF/yr
4,292,400 MSF/yr



State of Oregon Department of Environmental Quality

International Paper Company 26-3051-SI-01

Trim Cyclone System, Maximum Potential Operating Hours/yr: 8,760 hrs/yr
 Trim Baler System Maximum Hourly Capacity: 3.3 Tons Baled Scrap/hr
 Trim Baler System, Maximum Annual Capacity (PTE) 28,908 Tons Baled Scrap/Yr

Corrugator/ Pollutant	Emission Factor	Units	References	Longterm ton/yr (PTE)
VOC*	0.0035	lb/MSF	Emission Test	7.5

*NCASI (2016), Maryland Heights, MO.

Trim System Cyclone	Emission Factor	Units	References	Longterm tons/yr (PTE)
PM	0.60	Lb/Ton Scrap	Stack Test ('94)	8.7
PM10	0.23	Lb/Ton Scrap	Engineering Estimates	3.3
PM2.5	0.17	Lb/Ton Scrap	Engineering Estimates	2.5

Finishing Inks/ Pollutants	Emission Factor	Units	References	Longterm ton/yr
VOC	mass balance	lb/lb ink	Mass Balance	30.5

Starch Silo Pollutants	Emission Factor	Units	References	Longterm ton/yr
PM	mass balance	lb/ton starch	Mass Balance	0.12

Emission Totals			Potential to Emit				
Pollutant	Permit PTE	Sum of Sources Tons/yr	Boiler	Corrugator	Starch Silo**	Trim Cycl	Ink
PM (Total)	24	9.6	0.8		0.12	8.7	
PM ₁₀	14					3.3	
PM2.5		3.3	0.8			2.5	
SO ₂	39	0.1	0.1				
NO _x	39	11.0	11				
CO	99	9.2	9.2				
VOC	39	39.0	0.6	7.5			30.9

** STARCH
 62,000 lbs/delivery
 43 deliveries / year
 2,666,000 pounds / year
 1,333 tons / year of starch
 0.18 emission factor from bag house vendor in lbs/ton
 239.94 lbs emitted starch
 2000 pounds / ton
 0.12 tons / year PM