



186 Iron Horse Court, Suite 101, Yakima, WA, 98901
Phone: (509) 834-2050 Fax: (509) 834-2060
Website: <http://www.yakimacleanair.org>

Filing Fee: \$400.00*

*Pursuant to WAC 173-400-111(I) (e)-an application is not complete until the permit application filing fee required by YRCAA has been paid.

OFFICIAL USE ONLY

YRCAA NSR No: NSRP-12-1P-22 Date Fee Paid: 12/2/22

Received by: W.P. Filing Fee: **\$400.00**

xxxx 2141
Master Card
W.P.

☐ YRCAA is the lead agency for the SEPA process. Processing Fee \$400.00

Review of the application will not begin, until the application filing fee is paid. A surcharge fee for the time required for preparing and processing the application for approval will be invoiced after the permit to operate is issued.

New Source Review (NSR) Application General

Stationary/Permanent Source

INSTALLATION OR ESTABLISHMENT OF NEW AIR CONTAMINANT SOURCES

NSR Application is Required for Construction, Installation or Establishment of an Air Pollution Source
Or

Replacement or Substantial Alteration of Emission Control Technology on an Air Pollution Source or Equipment

I. General Information:

BUSINESS NAME International Paper Yakima Container Plant

NATURE OF BUSINESS Corrugated Container Plant

MAILING ADDRESS 600 W. Ahtanum Road, Union Gap WA 98903

FACILITY ADDRESS (if different): same

PHONE and FAX NUMBERS () 509-576-3122

Email: jose.ibarra@ipaper.com

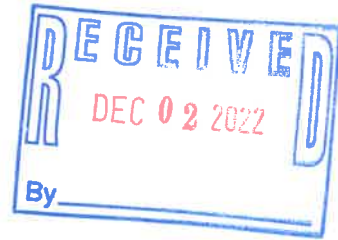
TYPE OF PROCESS, EQUIPMENT, OR APPARATUS SUN625 Rotary Die Cutter

LIST OF AIR CONTAMINANT(S) WHICH WILL BE PRODUCED AND/OR CONTROLLED

VOC, PM

ESTIMATED STARTING DATE: _____

ESTIMATED COMPLETION DATE: N/A Existing



Receipt: 14633
Acct #: 393
Yakima Regional Clean Air Agency
186 Iron Horse Ct.
Suite #101
Yakima, WA 98901

12/02/2022

International Paper Co
Attn: Martin Taylor
600 W. Ahtanum Road
Union Gap, WA 98903

Treasurer's Receipts

New Source Review	400.00
Non Taxed Amt:	400.00
Total:	400.00
CC: 037382	400.00
Ttl Tendered:	400.00
Change:	0.00

Issued By: Itza-Vel
12/02/2022 12:27:52

YAKIMA REGIONAL CLEAN AIR AG
329 N 151 ST
YAKIMA, WA 98901
(509) 834-2050
MID #3130031001052

Term ID: 1
Merchant ID: 3130031001052

Phone Order Sale

xxxxxxxxxxxx2141 Exp: XX/XX
MASTERCARD Entry Method: Keyed CNP
Total: \$ 400.00
12/02/22 12:24:40
Inv# 000001 Appr Code: 037382
Apprvd: Online Batch#: 000226
CVC2 Code: M
BRIC #: 06UK46DY15RU4W99FBG

SIGN X

CARDHOLDER ACKNOWLEDGES RECEIPT OF FUNDS
IN THE AMOUNT OF THE TOTAL INDICATED AND
AGREES TO PERFORM THE OBLIGATIONS NOTED
IN THE CARDHOLDER'S AGREEMENT WITH THE
ISSUER

MERCHANT COPY

SEPA for current NSR application ⇒ NSRP-12-1P-22 OK. w.p.

Compliance with SEPA (State Environmental Policy Act) - Check One of the Options Below:

- ☐ A DNS or EIS has been Issued by Another Agency for this Project and a Copy is Attached.
- ☐ If no DNS or EIS Exists for this Project, a Completed Checklist for this Project and the SEPA Processing Fee are Attached. YRCAA SEPA checklist is available by phone, or by our website.
- ☐ The city/county has established an exemption for this project.
- ☒ I certify that the SEPA has been satisfied or this project is exempt:

3/4/2020 by JASON CAVANAGH BUILDING OFFICIAL
Date Government Agency CITY OF WASH GAP

Previous NSR/Air Permits Number issued by YRCAA for the Facility, if any _____

Describe Input to Output Process (Attach drawings, schematics, prints, or block diagrams) _____

ATTACHED DRAWINGS

ESTIMATED COSTS: OF BASIC SOURCE EQUIPMENT \$ _____
OF CONTAMINANT CONTROL APPARATUS \$ _____

Process: Production Output per Year (tons, pounds, etc) TONS $67,088.15 = 6000 \text{ hrs/yr}$
Maximum Output per Hour (tons, pounds, etc) 11.18 TONS PER HR = .22 TONS PER YR (at 98% EFF)
Percentage of Production (%)
Dec - Feb 25% Mar - May 25%
Jun - Aug 25% Sep - Nov 25%
Operating Schedule: Hrs/Day 24 Days/Wk 5-6 Wks/Yr 50

II. Emissions Estimations and Calculations:

- Criteria Pollutants (gr/dscf, tons/yr, lbs/hr., ppm, etc.)
Particulate (PM₁₀, PM_{2.5}) PM₁₀ = 108 TONS/PER YR / PM_{2.5} = 0.024 TONS/PER YR
PM₁₀ = 216 lbs per yr / PM_{2.5} = 48 lbs per yr
Volatile Organic Compounds 0.1885 TONS/YR (3.4895 TONS/YR LIMIT)
Nitrogen Oxides 3.49615 TONS/YR (LIMIT 20 TONS/YR LIMIT)
Sulfur Oxides 0.02055 TONS/YR (LIMIT 20 TONS/YR)
Carbon Monoxide 2.5436 TONS/YR (LIMIT 20 TONS/YR)
Lead 0.0 (LIMIT 20 TONS/YR)

- Toxic Air Pollutants (Name) Quantity (in gr/dscf, tons/yr, lbs/hr. ppm, etc.)

Compliance with SEPA (State Environmental Policy Act) - Check One of the Options Below:

- ☐ A DNS or EIS has been Issued by Another Agency for this Project and a Copy is Attached.
- ☐ If no DNS or EIS Exists for this Project, a Completed Checklist for this Project and the SEPA Processing Fee are Attached. *YRCAA SEPA checklist is available by phone, or by our website.*
- ☒ The city/county has established an exemption for this project.
- ☐ I certify that the SEPA has been satisfied or this project is exempt:

_____ by _____
Date Government Agency

Previous NSR/Air Permits Number issued by YRCAA for the Facility, if any NSRP-20-IP-16, NSRP-10-IP-16, NSRP-09-IP-14

Describe Input to Output Process (Attach drawings, schematics, prints, or block diagrams) _____
Process converts corrugated sheets to containers with applied graphic arts.

ESTIMATED COSTS: OF BASIC SOURCE EQUIPMENT \$ _____
OF CONTAMINANT CONTROL APPARATUS \$ _____

Process: Production Output per Year (tons, pounds, etc) 724,339 MSF (thou square feet) in 2021

Maximum Output per Hour (tons, pounds, etc) _____

Percentage of Production (%)

Dec - Feb 20%

Mar - May 25%

Jun - Aug 25%

Sep - Nov 30%

Operating Schedule: Hrs/Day 24 Days/Wk 5-7 Wks/Yr 52

II. Emissions Estimations and Calculations:

1. Criteria Pollutants (gr/dscf, tons/yr, lbs/hr., ppm, etc.)

Particulate (PM₁₀, PM_{2.5}) _____

Volatile Organic Compounds 0.398 tons/yr (average); 4.569 tons/yr (max)

Nitrogen Oxides _____

Sulfur Oxides _____

Carbon Monoxide _____

Lead _____

2. Toxic Air Pollutants (Name) Quantity (in gr/dscf, tons/yr, lbs/hr, ppm, etc.)

3. Fugitive Pollutants (Source) _____ Quantity (in gr/dscf, tons/yr, lbs/hr, ppm, etc.) _____

4. Air Pollution Modeling

Results _____

Computer Printout Attached? ☐ Yes ☐ No

III. Emission Data:

1. Stack Height (Feet) _____ Inside Diameter (feet) _____

Not applicable Gas Exit Temp (degrees F) _____ Gas Exit Velocity (ft/min) _____

Flow Rate (cfm) _____

Shared Stack? If a shared stack, identify process (es) or point(s) which share the stack.

Distance from Stack to Property Line _____

2. Discharge Point or points (if no stack or other than stack)

Not a point source Height (feet) _____ Inside Diameter (feet) _____

Gas Exit Temp (degrees F) _____ Gas Exit Velocity (ft/min) _____

Flow Rate (cfm) _____

Shared discharge point? If a shared discharge point, identify process (es) or point(s) which share the discharge point. _____

Distance from discharge point to Property Line _____

3. Fuel Type _____ % Sulfur _____

Not applicable % Ash _____ Unit of Measure (gal./cu.ft./etc.) _____

BTU per Unit of Measure _____ Consumption Units per Year _____

Maximum Consumption Units per Hour _____

4. Building Dimensions

Height (feet) 30 Length (feet) 570 Width (feet) 340

IV. Air Pollution Control Equipment:

Baghouse	Type <u>Existing</u>	Model #, Serial # _____
	Efficiency _____	PM _{2.5} : _____ and PM ₁₀ : _____
	Bag Height (feet) _____	Bag Diameter (feet) _____
	Filter Area (feet squared) _____	Blower Flow Rate (cfm) _____
	Filter Media _____	Dimensions (feet) _____
	Discharge Area Dimensions (feet) _____	
	Cleaning Mechanism (shake) (air psi) _____	
	Other Data _____	
Scrubber	Type _____	Model #, Serial # _____
	Efficiency _____	
	Gas Differential Pressure (psi) _____	Liquor Differential Pressure (psi) _____
	Liquor Flow (gpm) _____	Discharge Area Dimensions (feet ²) _____
	Gas Flow (cfm) _____	Other Data _____
Cyclone	Type <u>Existing</u>	Model #, Serial # _____
	Efficiency _____	PM _{2.5} : _____ and PM ₁₀ : _____
	Gas Flow (cfm) _____	Discharge Area Dimensions (feet ²) _____
	Other Data _____	
Precipitator	Type _____	Model #, Serial # _____
	Efficiency _____	
	Gas Flow (cfm) _____	Gas Velocity (ft/sec) _____
	Residence Time _____	Gas Differential Pressure (psi) _____
	Precipitation Rate (ft/sec) _____	Discharge Area Dimensions (feet ²) _____
	Other Data _____	
Ad/Absorp	Type _____	Model #, Serial # _____
	Efficiency _____	
	Gas Flow _____	Gas Velocity (ft/sec) _____
	Gas Temp (degree F) _____	Bed Volume (ft ³) _____
	Bed Dimensions (feet) _____	Capacity (hours) _____
	Contaminant (lb/day) _____	Regeneration time (hours) _____

Other _____ Type _____ Model #: Serial # _____
Efficiency _____
Gas Flow (cfm) _____ Discharge Area Dimensions (feet) _____
Other Data _____

V. Additional Information:

1. Attach Related Information on Chemicals or Materials that will be emitted. (MSDS Sheets, Company Information, etc.)

Note: Indicate how much quantity are used per MSDSs

☒ Yes ☐ No, if not why? _____

2. Fugitive Dust Control Plan (Attach if Necessary)

3. Attach Operation and Maintenance Manual of Pollution Control Equipment.

☐ Yes ☒ No, if not, why? No change in control equipment

4. Attach Vendor Information or Manufacturer's Instructions on Pollution Control Equipment.

☐ Yes ☒ No, if not, why? No change in control equipment

APPLICANT: I hereby certify that the information contained in this application, including supplemental forms and data, when required, is, to the best of my knowledge, complete and correct. I also agree to all fees for processing this permit and grant permission for YRCAA staff to enter the premises for inspection.

Signature _____ Date 11/28/2022

Title Steve Roy, Site Manager Date _____

Name and Title of Individual Filling out Form:

Name (print) Jose Ibarra, EHS Manager

Signature Jose Ibarra

Name and Title of Contact Person, if Different than Above:

Name _____

Title _____

Name and Title of the Responsible Official for the permit, if Different than Above:

Name Steve Roy

Title Site Manager

November 28, 2022

Yakima Regional Clean Air Agency
Attn. Mr. Wade Porter
186 Iron Horse Court, Suite 101
Yakima, WA. 98901

Re: **International Paper, Yakima Facility**
NSR Permit Application for a SUN625 Rotary Die Cutter

Dear Wade,

Please find attached the NSR permit application to support an existing Rotary Die Cutter (RDC) at the International Paper Yakima facility, located at 600 West Ahtanum Road, Union Gap WA, 98903. The original RDC application was submitted in 2020 and this submittal provides more recent information regarding site contacts and material usage/emission calculations. Notably, the City signed off on the SEPA checklist on 3/4/2020 as a part of the original application. This unit will operate similar to currently permitted printing units.

This application package includes the following:

- NSR Permit Application Form (Form P-41)
- Printing and Graphic Arts Registration (Form P-55)
- Supporting documentation, such as, facility layout map, emission calculations, product emission data & SDSs

Volatile organic compounds (VOC) emissions were determined using material purchase records from 2021 & 2022. As VOC content varies by color, a weighted average of all ink products purchased and their associated VOC content were used to calculate the average VOC content. The average VOC content was used to determine typical emissions while the ink and ink additive with the highest VOC content was used to determine maximum potential to emit. Particulate emissions associated with trimming go through the existing cyclone and baghouse located on the roof of the building.

Should you have any questions or comments concerning this permit application package, please contact myself (509.907.1909; jose.ibarra@ipaper.com) or Jayme Dryden of Ashworth Leininger Group (805.764.6005; jdryden@algcorp.com).

Very truly yours,



Jose Ibarra
EHS Manager



Yakima Regional Clean Air Agency

INSTRUCTIONS FOR PERMIT APPLICATION

Use this sheet as a checklist to determine when your application is substantially complete.

Each PERMIT APPLICATION for the construction, installation or establishment of a new air contaminant source, or modification of existing air pollution source or control equipment or permit, needs to be accompanied by the following information to be considered complete:

Included N/A

- ☒ ☐ Process flow sheets and equipment layout diagrams.
- ☐ ☒ Control equipment manufacturer, model number, size, serial numbers (for each piece of control equipment).
- ☒ ☐ Quantify average and maximum hourly throughput values, average yearly totals, and maximum concentrations for each pollutant.
- ☒ ☐ Applicant's calculation of the kinds and amounts of emissions for each emission point, materials handling operation or fugitive category (both controlled and uncontrolled).
- ☒ ☐ Plot plan including identification of proposed emission points to the atmosphere, distance to property boundaries, height of buildings and stack height above ground level.
- ☒ ☐ Identification of raw materials and/or product specifications (physical and chemical properties) and typical ranges of operating conditions as related to each emission point (toxic air contaminants require a separate summary); Material Safety Data Sheets (MSDS) should be included in the PERMIT APPLICATION for all compounds used.
- ☒ ☐ Identification of the methods/equipment proposed for prevention/control of emissions to the atmosphere.
- ☒ ☐ Information sufficient to demonstrate the ability of the emission controls proposed as being consistent with those provided in the applicable regulations (BACT/NSPS/RACT/NESHAPS/LAER analysis). See attached worksheet for typical layout of BACT analysis information.
- ☐ ☒ The kinds and amounts of emission offset credits proposed for assignment when operations are within a non-attainment boundary (see WAC 173-400-120 and 131).
- ☐ ☒ Estimates of the proposed project ambient impact under average and least favorable conditions where pertinent to PSD (WAC 173-400-720) or Toxic Air Pollutants (WAC 173-460) requirements.
- ☐ ☒ Additional information, evidence, or documentation as required by the Board of Directors, or the Control Officer, to show that the proposed project will meet federal, state and local air pollution control regulations.
- ☐ ☒ For applications that include equipment that has previously been approved, authorized or registered, a lapse is considered to have occurred if the registration fees are delinquent for more than one calendar year or the source has not operated within five years prior to the receipt of any required PERMIT APPLICATION (WAC 173-400-110).
- ☐ ☒ Applications that include previously approved or authorized equipment require that additional information regarding previous owners or approvals be provided so that YRCAA records can be updated. Equipment registered and/or approved for a given company cannot be authorized without a legal name change, purchase of company or equipment, or a legal contract or subcontract to do business with or for the approved source. Responsibility for operation of authorized equipment rests with the registered source.
- ☒ ☐ All applications need to be accompanied with a completed SEPA checklist or SEPA determination. YRCAA may process the SEPA determination, if no other agency has done it. In this case a SEPA checklist with the proper fees must be submitted with the NSR application.

The application transmittal shall conform to YRCAA review requirements wherever possible as detailed in the General Regulations for Air Pollution Sources (WAC 173-400).

Each drawing, document, or other form of transmittal considered by the applicant to be proprietary and confidential must be suitably identified as confidential in red ink, and signed and dated by the applicant or its agent. Be aware that YRCAA follows the requirements in 40 CFR 2 for determination of confidentiality. YRCAA may not process company sensitive information as confidential.

Orders of Approval (to construct, modify, or install) are issued for specific equipment or processes described in the application. Changes to the processes or control equipment are not allowed without new source review (Permit Application and Permit) if these changes result in an emission of a different type or an increase in emissions (WAC 173-400-110). Process equipment changes that result in decreased emissions require notification to YRCAA.

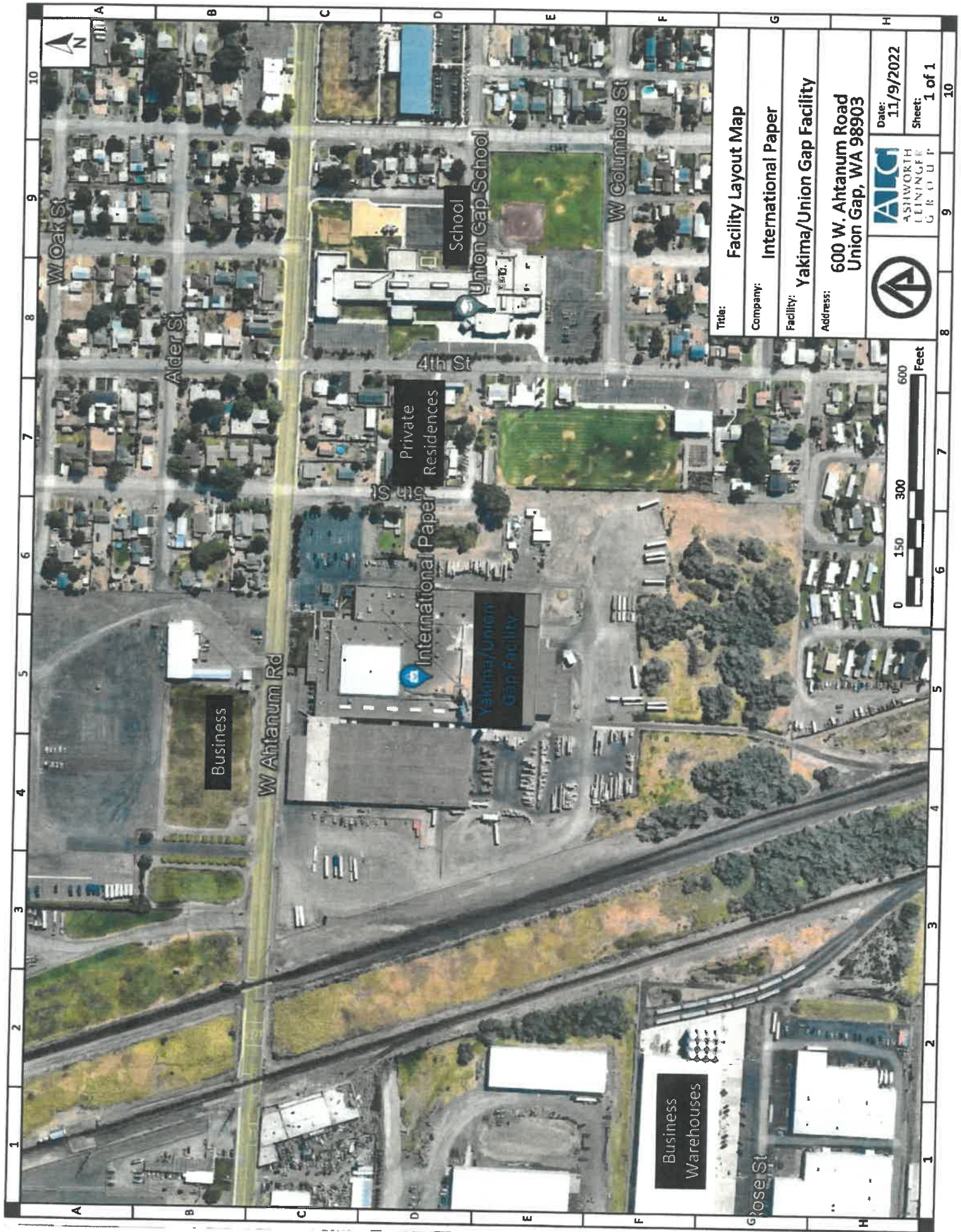
The SIC code is identified as the four digit major group classification in the 1987 Standard Industrial Code Classification Manual listing of SIC codes can be obtained for free from the internet.

Mail or deliver in person the completed application package to:

Yakima Regional Clean Air Agency
186 Iron Horse Court, Suite 101
Yakima, WA 98901-2303

Application fees must accompany application for the application to be considered complete. An invoice will be sent out for the Engineering review after final decision on the application. Make checks payable to "Yakima Regional Clean Air Agency" or "YRCAA".

The PERMIT APPLICATION package submitted must be complete. All applications are screened for completeness before processing. Applicants submitting incomplete application packages will be notified of their incomplete status and may result in a delay in processing the application.



Title: Facility Layout Map

Company: International Paper

Facility: Yakima/Union Gap Facility

Address: 600 W. Ahtanum Road
Union Gap, WA 98903



Date: 11/9/2022

Sheet: 1 of 1



Yakima Regional Clean Air Agency
186 Iron Horse Court, Suite 101, Yakima WA 98901
Phone: (509) 834-2050 Fax: (509) 834-2060
<https://www.yakimacleanair.org>

PRINTING AND GRAPHIC ARTS REGISTRATION

NOTE: Enter information from your previous calendar year activities and mail it back or email it to registration@yrcaa.org

1. FACILITY INFORMATION HAS THE BUSINESS NAME OR OWNERSHIP CHANGED IN THE LAST YEAR? ☐ YES ☒ NO					
a. FACILITY NAME Yakima Container Plant		b. OWNER NAME International Paper		c. UNIFIED BUSINESS IDENTIFIER (UBI) 600-622-589	
d. PHYSICAL ADDRESS 600 W. Ahtanum Road, Union Gap WA 98903			e. MAILING ADDRESS same		
f. CONTACT NAME & TITLE Jose Ibarra, EHS Manager		g. PHONE 509-576-3122		h. EMAIL jose.ibarra@ipaper.com	
i. PREFERRED CONTACT METHOD ☐ MAIL ☒ EMAIL					
2. GENERAL INFORMATION					
a. DOES YOUR FACILITY USE INKS, SOLVENTS, OR THINNERS? ☒ YES, COMPLETE REMAINDER OF FORM, PROVIDE THE MSDS AND PAY THE REGISTRATION FEE. ☐ NO, SIGN AND RETURN THIS FORM WITHOUT THE FEE.					
b. OPERATING SCHEDULE		HOURS PER DAY 24		DAYS PER WEEK 5-7	
				WEEKS PER YEAR 52	
3. EQUIPMENT AND PROCESS INFORMATION					
a. PRINTING PROCESSES USED ☐ HEATSET WEBPRESS ☐ ROTOGRAVURE ☒ FLEXOGRAPHY ☐ SCREEN PRINTING ☐ OFFSET LITHOGRAPHY (NON-HEATSET WEB) ☐ NEWSPRINT ☐ OTHER (SPECIFY BELOW)					
b. ANNUAL QUANTITY AND UNIT OF MEASURE FOR INKS AND SOLVENTS USED					
INK TYPE	QUANTITY	SOLVENTS	QUANTITY	THINNERS	QUANTITY
Water-based Flexographic Inks	214,000 lbs	Additives	9,100 lbs		
c. MATERIAL SAFETY DATA SHEETS ☐ PREVIOUSLY SUBMITTED ☒ INCLUDED WITH THIS REGISTRATION SUBMISSION					
d. EMISSION CONTROLS USED					
☐ INCINERATION ☐ ACTIVATED CARBON ADSORBER ☒ WATER BASED INKS AND COATINGS					
☐ OTHER (PLEASE SPECIFY)					
4. CERTIFICATION I, the undersigned, do hereby certify that the information provided is accurate and complete to the best of my knowledge.					
SIGNATURE 		TITLE Site Manager			
NAME (PRINT) Steve Roy		DATE 11/28/2022			

SUBMIT
Form P-55

2022 YTD Purchase and Product Data

Item Key	Product Description	Purchase (lbs)	Density (lbs/gal)	Wt% VOC	VOC (lbs)	Notes
20273652	EPIC II PMS 280 C MW BLUE	85.0		0.23	0.20	
20273679	EPIC PMS 286 C MW BLUE	169.0		0.57	0.96	
20273726	EPIC PMS 2748 C MW BLUE	494.0		0.10	0.50	
20273831	EPIC II PMS 2925 U MW BLUE	45.0		0.70	0.31	
20273858	EPIC II PMS 3005 C MW BLUE	225.0		0.03	0.07	
20273870	EPIC III 34 BLUE	1,620.0		0.07	1.05	
20273909	STEMILT BLUE	90.0		0.04	0.04	
20273975	EPIC II PMS 2925 U K BLUE	45.0		0.04	0.02	
20274011	EPIC 40 PURPLE	136.0		0.45	0.62	
20274254	EPIC III 49 PURPLE	2,570.0		0.59	15.26	
20274475	EPIC PMS VIOLET U MW	134.0		0.28	0.38	
20275002	EPIC 908 GOLD	90.0		0.45	0.40	
20275021	EPIC PMS 484 U MW BROWN	90.0		0.61	0.55	
20275059	EPIC PMS 4625 U MW BROWN	4,325.0		0.51	22.18	
20275175	EPIC PMS 188 U MW BROWN	45.0		0.72	0.33	
20275191	EPIC II PMS 873 U MW NM GOLD	45.0		0.65	0.29	
20275232	EPIC PMS 467 U MW TAN	349.0		0.02	0.06	
20275259	EPIC PMS 1685 U K BROWN	540.0		0.05	0.27	
20275320	EPIC PMS 1817 U MW BROWN	135.0		0.08	0.11	
20275326	EPIC PMS 188 U K BROWN	223.0		0.06	0.12	
20275744	EPIC PMS 4685 U K TAN	624.0		0.15	0.93	
20275914	ORGANIC CREAM K	180.0		0.11	0.20	
20275959	AGRIBEEF RED K	90.0		0.12	0.11	
20277007	EPIC PMS 032 U MW RED	270.0		0.46	1.25	
20277011	EPIC PMS PROCESS MAGENTA	180.0		0.75	1.36	
20277030	EPIC PMS 186 U MW RED	89.0		0.12	0.10	
20277071	EPIC III 73 RED	854.0		0.08	0.72	
20277078	EPIC III 76 RED	723.0		0.32	2.31	
20277102	EPIC III 74 RED	3,955.0		0.25	9.77	
20277183	EPIC III 75 RED	8,771.0		0.51	44.67	
20277207	EPIC III 78 RED	135.0		0.14	0.19	
20277222	EPIC III 609 MAROON	815.0		0.16	1.30	
20277260	EPIC PMS 200 U MW RED	450.0		0.08	0.36	
20277376	EPIC II PMS 1817 U K MAROON	539.0		0.48	2.57	
20277451	EPIC PMS 1805 U MW RED	90.0		0.63	0.56	
20277484	EPIC II PMS 1787 C MW RED	305.0		0.70	2.13	
20277509	X0488 EPIC II TARGET NR RED K	645.0		0.06	0.36	
20277892	EPIC II PMS 032 C MW RED	40.0		0.01	0.00	
20279097	EPIC PMS 421 U MW GRAY	45.0		0.74	0.33	
20279715	EPIC II PMS BLACK U MW	181.0		0.52	0.94	
20279766	EPIC II PMS 420 U MW GRAY	2,752.0		0.14	3.85	
20279910	EPIC WHITE	7,920.0		0.13	9.98	
20281024	EPIC PMS 458 U MW GOLD	205.0		0.03	0.06	
20281044	EPIC II PMS 124 C MW YELLOW	1,391.0		0.17	2.41	
20282037	EPIC PMS 347 C MW GREEN	311.0		0.09	0.29	
20282121	EPIC II PMS 2262 C MW GREEN	270.0		0.01	0.04	
20282218	EPIC III 2008 GREEN	4,807.0		0.07	3.33	
20282224	EPIC III 25 K GREEN	493.0		0.07	0.36	
20282227	EPIC II PMS 576 U K GREEN	315.0		0.04	0.14	
20282228	EPIC II PMS 5743 U K GREEN	314.0		0.09	0.29	
20282230	WILD TWIST DARK GREEN MW	135.0		0.04	0.06	
20283076	LOWES PMS 7712 U K BLUE	493.0		0.06	0.29	
20283090	TROUT BLUE KRAFT II	2,534.0		0.05	1.18	
20283101	LOWES PMS 280 U K BLUE	845.0		0.06	0.47	
20283121	EPIC III 394 BLUE	1,576.0		0.10	1.63	
20283134	EPIC II PMS 632 U MW BLUE	200.0		0.02	0.03	

***Confidential* 2022 YTD Purchase and Product Data**

Item Key	Product Description	Purchase (lbs)	Density (lbs/gal)	Wt% VOC	VOC (lbs)	Notes
Inks						January-September 2022
10589340	EPIC 90 BLACK (KIT)	2,025.0		0.07	1.42	
20139090C	BLACK CONCENTRATE	8,750.0		0.37	32.38	
20262255	EPIC PMS 617 U K GREEN	46.0		0.29	0.13	
20263249	EPIC PMS 2945 C MW BLUE	45.0		0.55	0.25	
20263397	EPIC II PMS 3125 U MW BLUE	135.0		0.02	0.03	
20263521	EPIC III 30 BLUE	1,126.0		0.38	4.24	
20263932	EPIC PMS 2766 C K BLUE	581.0		0.45	2.60	
20267116	EPIC II PMS 1805 U K RED	855.0		0.46	3.92	
20267336	GW RED K	90.0		0.19	0.17	
20267337	GW RED MW	90.0		0.61	0.54	
20270020	EPIC 20 GREEN (KIT)	720.0		0.14	1.00	
20270022	EPIC 22 GREEN	90.0		0.09	0.08	
20270032	EPIC 32 BLUE	450.0		0.04	0.20	
20270038	EPIC 38 BLUE	90.0		0.05	0.05	
20270050	EPIC 50 BROWN	90.0		0.57	0.51	
20270052	EPIC 52 BROWN	1,485.0		0.54	8.01	
20270077	EPIC 77 RED	134.0		0.59	0.79	
20270080	EPIC 80 ORANGE	225.0		0.40	0.89	
20270081	EPIC 81 ORANGE	315.0		0.48	1.51	
20270103	EPIC 103 YELLOW	540.0		0.43	2.33	
20270313	EPIC 3213 BLUE	90.0		0.40	0.36	
20270329	EPIC 3229 BLUE	2,430.0		0.49	11.87	
20270388	EPIC 388 BLUE	720.0		0.47	3.41	
20270523	EPIC 523 BROWN	765.0		0.54	4.17	
20270902	EPIC 9002 GRAY	315.0		0.03	0.11	
20270970	EPIC 970 GRAY	180.0		0.03	0.05	
20271095	EPIC III 13 YELLOW	492.0		0.47	2.32	
20271114	EPIC II PMS 115 U MW YELLOW	315.0		0.05	0.15	
20271120	EPIC III 10 YELLOW	1,304.0		0.42	5.44	
20272028	EPIC 2014 GREEN	80.0		0.55	0.44	
20272099	EPIC PMS 368 U MW GREEN	134.0		0.70	0.93	
20272129	EPIC III 24 GREEN	5,040.0		0.50	25.34	
20272159	EPIC III 25 MW GREEN	1,145.0		0.53	6.12	
20272222	EPIC III 21 GREEN	2,607.0		0.48	12.43	
20272230	EPIC III 29 GREEN	3,596.0		0.12	4.45	
20272243	EPIC III 2081 GREEN	1,978.0		0.48	9.56	
20272318	EPIC II PMS 315 U MW GREEN	160.0		0.04	0.06	
20272395	EPIC PMS 576 U MW GREEN	135.0		0.09	0.13	
20272579	EPIC PMS 370 U K GREEN	45.0		0.05	0.02	
20272617	EPIC PMS 381 U K GREEN	45.0		0.16	0.07	
20272735	EPIC II PMS 7741 U MW GREEN	135.0		0.04	0.06	
20272800	EPIC 29 FR GREEN	3,277.0		0.56	18.22	
20273004	EPIC PMS 280 U MW BLUE	90.0		0.04	0.04	
20273085	EPIC III 33 BLUE	10,027.0		0.08	7.62	
20273113	EPIC PMS 3005 U MW BLUE	90.0		0.74	0.66	
20273138	EPIC II PMS 2995 C MW BLUE	249.0		0.70	1.73	
20273175	EPIC III 3086 BLUE	1,843.0		0.05	1.00	
20273235	EPIC III 39 BLUE	1,429.0		0.07	1.00	
20273302	EPIC PMS 295 U K BLUE	406.0		0.04	0.15	
20273309	EPIC PMS 2985 U MW BLUE	226.0		0.72	1.64	
20273340	EPIC III 31 BLUE	2,567.0		0.07	1.77	
20273346	EPIC II PMS 288 U MW BLUE	267.0		0.17	0.44	
20273385	EPIC PMS 2925 U MW BLUE	135.0		0.71	0.96	
20273425	EPIC II PMS 2945 U MW BLUE	90.0		0.45	0.40	
20273583	EPIC PMS 280 U K BLUE	92.0		0.43	0.39	

2022 YTD Purchase and Product Data

Item Key	Product Description	Purchase (lbs)	Density (lbs/gal)	Wt% VOC	VOC (lbs)	Notes
20284040	EPIC II PMS 2104 C K PURPLE	135.0		0.10	0.13	
20284047	EPIC II PMS 2617 U MW PURPLE	40.0		0.19	0.07	
20285006	EPIC PMS 467 C MW TAN	270.0		0.50	1.35	
20287003	EPIC II PMS 2348 C MW RED	270.0		0.48	1.29	
20287014	EPIC PMS 201 C K RED	90.0		0.40	0.36	
20287029	EPIC PMS 200 C K RED	360.0		0.32	1.15	
20287038	EPIC PMS 704 U K RED	180.0		0.04	0.07	
20287052	EPIC PMS 2035 C K RED	679.0		0.15	1.01	
20287096	EPIC II PMS 2339 C MW RED	359.0		0.03	0.09	
20451010	RAINIER 124 C MW GOLD	665.0		0.56	3.72	
20452001	RAPID II PMS 347 C MW GREEN	319.0		0.51	1.62	
20454000	RAPID II PMS 2748 C MW PURPLE	359.0		0.47	1.67	
20457000	RAPID II PROCESS MAGENTA	313.0		0.55	1.71	
20482879	RAPID II PMS 347 C MW GREEN	135.0		3.04	4.11	
20484206	RAPID II PMS 2748 C MW PURPLE	135.0		1.85	2.50	
20487857	RAPID II PROCESS MAGENTA	135.0		3.64	4.91	
20571192	RAINIER 124 C MW GOLD	677.0		3.51	23.75	
20572908	RAINIER 382 U K GREEN	45.0		0.13	0.06	
20579163	BLADE 90 BLACK	29,565.0		0.38	112.49	
20581245	CHROMAPAK YELLOW	559.0		0.57	3.21	
20581345	CHROMAPAK 108 U YELLOW	174.0		0.77	1.33	
20582264	CHROMAPAK 348 U GREEN	134.0		0.55	0.73	
20582434	CHROMAPAK III 368 U GREEN	129.0		0.52	0.67	
20583394	CHROMAPAK 280 U BLUE	240.0		0.53	1.28	
20583395	CHROMAPAK YS BLUE	89.0		0.56	0.49	
20583657	CHROMAPAK III PROCESS CYAN U	210.0		0.59	1.23	
20587327	CHROMAPAK 75 RED	480.0		0.57	2.75	
20587386	CHROMAPAK 1797 U RED	135.0		0.60	0.81	
20587482	CHROMAPAK 185 U RED	90.0		0.51	0.46	
20587483	CHROMAPAK III 185 U RED	120.0		0.44	0.53	
20829025	CASCADIAN WARM GRAY	43.0		0.77	0.33	
Weighted Average			0.00	0.33		YTD & Avg Monthly
Maximum			0.00	3.64		152,512
						16,946
Additives						
				January-September 2022		
16001927GL	PH ADJUSTER VII (MAMP)	480.0		5.00	24.01	
16000011GL	TRANSFER AGENT II	288.0		0.00	0.00	
16001918GL	FLEXO DEFOAMER I	820.0		0.60	4.92	
20769039	FLEXO GRIP	2,455.0		0.00	0.00	
17000250	FOAM DROP	14.5		0.60	0.09	
16001975CB	IP FLEXO SOAP II CONCENTRATE	200.0		15.00	30.00	
16001956	LIQUID BLAST	2,240.0		1.60	35.84	
Weighted Average			0.00	1.46		YTD & Avg Monthly
Maximum			0.00	15.00		6,498
						722
Adhesives						
				2021 - Annual Total		
Henkel CG 49013 GUV		47,368.8	9.01	0.01	4.74	Aquence CG 49013
Weighted Average			9.01	0.010		
Maximum			9.01	0.010		

VOC Emission Calculations

4-Color SUN625 Machine

		Ink		Additives		Adhesive	
		Typical	Maximum	Typical	Maximum	Typical	Maximum
VOC Content	(Weight%)	8.33	3.64	1.46	15.00	0.01	0.01
Material Usage	(lbs/month)	16,946	17,804	.722	.758	3,947	4,147

Operating Hours		
Typical	Maximum	
24	24	
5	7	
50	52	hrs/day day/wk wk/yr

VOC Average Annual

Device	Material	Annual Average (ton/year)
SUN625	Ink	0.333
	Additive	0.063
	Adhesive	0.002
Total		0.398

VOC Maximum Annual

Device	Material	Max Annual (ton/year)
SUN625	Ink	3.884
	Additive	0.683
	Adhesive	0.002
Total		4.569

Notes:

- * Typical VOC content was based on a weighted average of products purchased 2022 YTD and their VOC concentrations.
- * Maximum VOC content based on highest VOC content for each material type.
- * Maximum usage rates provided by facility, assuming 24/7 runtime.
- * Typical usage rates are calculated from maximum hours compared to typical operating hours.
- * Additives usage based on comparison of total additive to total ink purchases.