



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 | |
|---------|-------------------------------------|-------------------------------------|---|
| Att. #1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Process flow sheets and equipment layout diagrams. |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Control equipment manufacturer, model number, size, serial numbers (for each piece of control equipment). |
| Att. #2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Quantify average and maximum hourly throughput values, average yearly totals, and maximum concentrations for each pollutant. |
| Att. #2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Applicant's calculation of the kinds and amounts of emissions for each emission point, materials handling operation or fugitive category (both controlled and uncontrolled). |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Plot plan including identification of proposed emission points to the atmosphere, distance to property boundaries, height of buildings and stack height above ground level. |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 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. |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Identification of the methods/equipment proposed for prevention/control of emissions to the atmosphere. |
| Att. #1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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. |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 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). |
| Att. #1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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. |
| Att. #1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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. |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 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). |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 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. |
| Att. #3 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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.



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(1) (c)-an application is not complete until the permit application filing fee required by YRCAA has been paid.

OFFICAL USE ONLY

YRCAA NSR No: _____ Date Fee Paid: _____

Received by: _____ Filing Fee: **\$400.00**

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

Review of the application will not begin, until the application filling 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 Novolex Shields, LLC.

NATURE OF BUSINESS Manufacturer of plastic bags and sheeting

MAILING ADDRESS 1009 Rock Avenue, Yakima, WA 98902

FACILITY ADDRESS (if different): _____

PHONE and FAX NUMBERS (509) 225-0823 Email: jose.ilbarra@novolex.com

TYPE OF PROCESS, EQUIPMENT, OR APPARATUS Two Bell-Mark portable printing presses to be
designated BMP-23 and BMP-31 respectively.

LIST OF AIR CONTAMINANT(S) WHICH WILL BE PRODUCED AND/OR CONTROLLED _____
VOC, TAPs

ESTIMATED STARTING DATE: Upon issuance of permit

ESTIMATED COMPLETION DATE: June 2024

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.* **SEPA submitted to City of Yakima Planning Dept 5/10/2024.**
- ☐ 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 _____
AOP #y-004, NSR #NC-SBPC-96, SNRP-11-SBPC-2014, NSRP-08-NSLLC-2021

Describe Input to Output Process (Attach drawings, schematics, prints, or block diagrams) _____
Install two Bell-Mark portable printing presses

ESTIMATED COSTS: OF BASIC SOURCE EQUIPMENT \$ **~ 2 MM**

OF CONTAMINANT CONTROL APPARATUS \$ **NA**

Process: Production Output per Year (tons, pounds, etc) _____

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

Percentage of Production (%)

Dec - Feb **25** Mar - May **25**

Jun - Aug **25** Sep - Nov **25**

Operating Schedule: Hrs/Day **8** Days/Wk **7** Wks/Yr **52**

II. Emissions Estimations and Calculations:

1. Criteria Pollutants (gr/dscf, tons/yr, lbs/hr., ppm, etc.) **[Emissions increase due to project]**

Particulate (PM₁₀, PM_{2.5}) **0**

Volatile Organic Compounds **91 tons/yr**

Nitrogen Oxides **0**

Sulfur Oxides **0**

Carbon Monoxide **0**

Lead **0**

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

See Attachment 2

3. Fugitive Pollutants (Source) _____ Quantity (in gr/dscf, tons/yr, lbs/hr. ppm, etc.)
None. _____

4. Air Pollution Modeling Exempt per SQER (See Attachment 2) Reference: WAC 173-460-050(2)
Results _____
Computer Printout Attached? ☐ Yes ☐ No

III. Emission Data:

1. Stack NA Height (Feet) _____ Inside Diameter (feet) _____
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) NA
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 NA Type _____ % Sulfur _____
% 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) 24 Length (feet) 131 Width (feet) 115

IV. Air Pollution Control Equipment:

Baghouse NA Type _____ 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 NA Type _____ Model #, Serial # _____
Efficiency _____
Gas Differential Pressure (psi) _____ Liquor Differential Pressure (psi) _____
Liquor Flow (gpm) _____ Discharge Area Dimensions (feet²) _____
Gas Flow (cfm) _____ Other Data _____

Cyclone NA Type _____ Model #, Serial # _____
Efficiency _____ $PM_{2.5}$: _____ and PM_{10} : _____
Gas Flow (cfm) _____ Discharge Area Dimensions (feet²) _____
Other Data _____

Precipitator NA Type _____ Model #, Serial # _____
Efficiency _____
Gas Flow (cfm) _____ Gas Velocity (ft/sec) _____
Residence Time _____ Gas Differential Pressure (psi) _____
Precipitation Rate (ft/sec) _____ Discharge Area Dimensions (feet²) _____
Other Data _____

Ad/Absorp NA Type _____ Model #, Serial # _____
Efficiency _____
Gas Flow _____ Gas Velocity (ft/sec) _____
Gas Temp (degree F) _____ Bed Volume (ft³) _____
Bed Dimensions (feet) _____ Capacity (hours) _____
Contaminant (lb/day) _____ Regeneration time (hours) _____

Other NA 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.) SDSs on-file already with YRCAA

Note: Indicate how much quantity are used per MSDSs

☐ Yes ☐ No, if not why? _____

2. Fugitive Dust Control Plan (Attach if Necessary) NA

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

☐ Yes ☒ No, if not, why? Not yet available

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

☐ Yes ☒ No, if not, why? Not yet available

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 Jose Ibarra Date 5-22-2024

Title Environmental, Health and Safety Manager Date _____

Name and Title of Individual Filling out Form:

Name (print) Beth Fifield Hodgson, Environmental Consultant

Signature Beth Fifield Hodgson

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 Jose Ibarra

Title Environmental, Health and Safety Manager

Attachment 1
Facility Description

Novolex Shields, LLC – Yakima, Washington
Project Description

Background:

Novolex Shields, LLC (Shields) manufactures flexible packaging using polyethylene resin as the primary raw material to product plastic sheeting, tubing, and bags. Shields is located at 1009 Rock Avenue in Yakima, Washington. The facility currently operates under Air Operating Permit No. Y-003-04.

Project Description:

Shields intends to install two Bell-Mark AAS992 44” portable printing presses. At the same time, Shields intends to remove Flex Press 3 from its operation. The two new printing presses will be portable and designated as BMP 23 and BMP 31. These presses are designed to be used individually in-line with existing extruders or in combination to print 2 sides of extruded film.

Emissions:

Potential to emit (PTE) was calculated for maximum uncontrolled emissions at 30,000 lbs of printed material per day per press and 3,500,000 lbs of printed material per year per press.

The PTE was compared against de minimis values listed in WAC 173-400 Table 110(5) and WAC 173-460-150 to determine which pollutants trigger permitting. One criteria pollutant (VOCs) and 3 toxics pollutants triggered permitting – 2-butoxy ethanol, copper compounds, and isopropyl alcohol.

The maximum emissions were also compared against small quantity emission rate (SQER) values listed in WAC 173-460-150 to determine if any pollutants trigger air dispersion modeling. No emissions exceed their corresponding SQER limit; therefore, modeling is not required.

BACT:

A BACT analysis was not performed since the emissions sources are portable and installing control equipment on portable equipment is infeasible, including but not limited to permanent total enclosure and ducting emissions to a regenerative thermal oxidizer.

Project Timeline:

- The two Bell-Mark AAS992 portable printing presses will be installed upon issuance of this air permit.
- Flex Press 3 is out of commission and will be dismantled this year.

Printing Process Flow:

Shields operates thirty (30) extrusion lines. Different grades of polyethylene resins, colorants, and other additives are mixed in the extrusion hopper to obtain the required properties and color. The mixture is heated in the extruder to a semi-liquid material that is forced through the circular die at high pressures. The hot semi-viscous film is drawn off vertically upwards as a cylindrical bubbles which cool off to a solid film as it rises. The bubble is pinched into a flat tube and rolled directly as stock for conversion into bags, or run through Flexographic printing process and rolled for further conversion or direct shipment to customers.

Specific designs and prints required by customers on the plastic film rolls or flexible packaging products are accomplished by Flexographic printing process. In each flex printing unit, an ink roller that is partially immersed in the ink fountain provides the ink feed to an adjacent anilox roll where a constant ink thickness on the anilox roll surface is deposited. The ink thickness is controlled by the clearance between the two rollers. The anilox roll coats the design print on the plate cylinder is printed on the plastic film as the plate cylinder rolls over the moving plastic film. The printed plastic film is then either air dried or passed through a hot air tunnel dryer and subsequently cooled down by chill rollers. Dryer exhaust containing VOC pollutants from standalone Flexographic printing units and from extrusion lines or in-line press combinations are sent to a main header and combusted in one of the regenerative thermal oxidizers (RTO3 and RTO4) before discharging to atmosphere. Emissions from portable printing presses will exhaust within the building and eventually to atmosphere. The printed plastic films produced from the extrusion and printing operations are rolled and prepared for conversion in the Bag Department or stored for shipment to customers.

Federal Rule Applicability:

- Prevention of Significant Deterioration (PSD) – see the PSD determination below.
- New Source Performance Standards (40 CFR 60) – No NSPS standards are applicable to this source.
- National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR 63) – Subpart KK applies to this source and is already implemented at Shields.

PSD Determination:

PSD may be triggered if three criteria are met:

- ***The pollutants emitted in, or increased by, significant amounts by the project are subject to PSD¹.*** Shields' new portable printing presses would emit volatile organic compounds (VOCs) which are precursors of stratospheric ozone formation. Based on Washington State regulations, VOCs meet the definition of "air contaminant²" and are subject to PSD.
- ***The new major source would locate, or the modified source is located, in an area designated as attainment or unclassifiable³.*** Shields is located at 1009 Rock Avenue in Yakima, Washington. This area is classified as nonclassifiable or in attainment for ozone. The facility is not a major source for any other regulated pollutant.
- ***The proposed new source must be a "major stationary source" or the proposed modification to an existing source must be a "major modification"⁴.*** Although Shields has the potential to emit 1,885 tons of VOCs per year, Shields is not a major source for purposes of PSD because no project has triggered PSD. Therefore, the PSD **modification** thresholds are not under consideration.

In determining whether this project is a major stationary source, the following steps to were considered in accordance with WAC 173-400-800.

¹ 40 CFR 52.21(a)(2)(iv)(a)

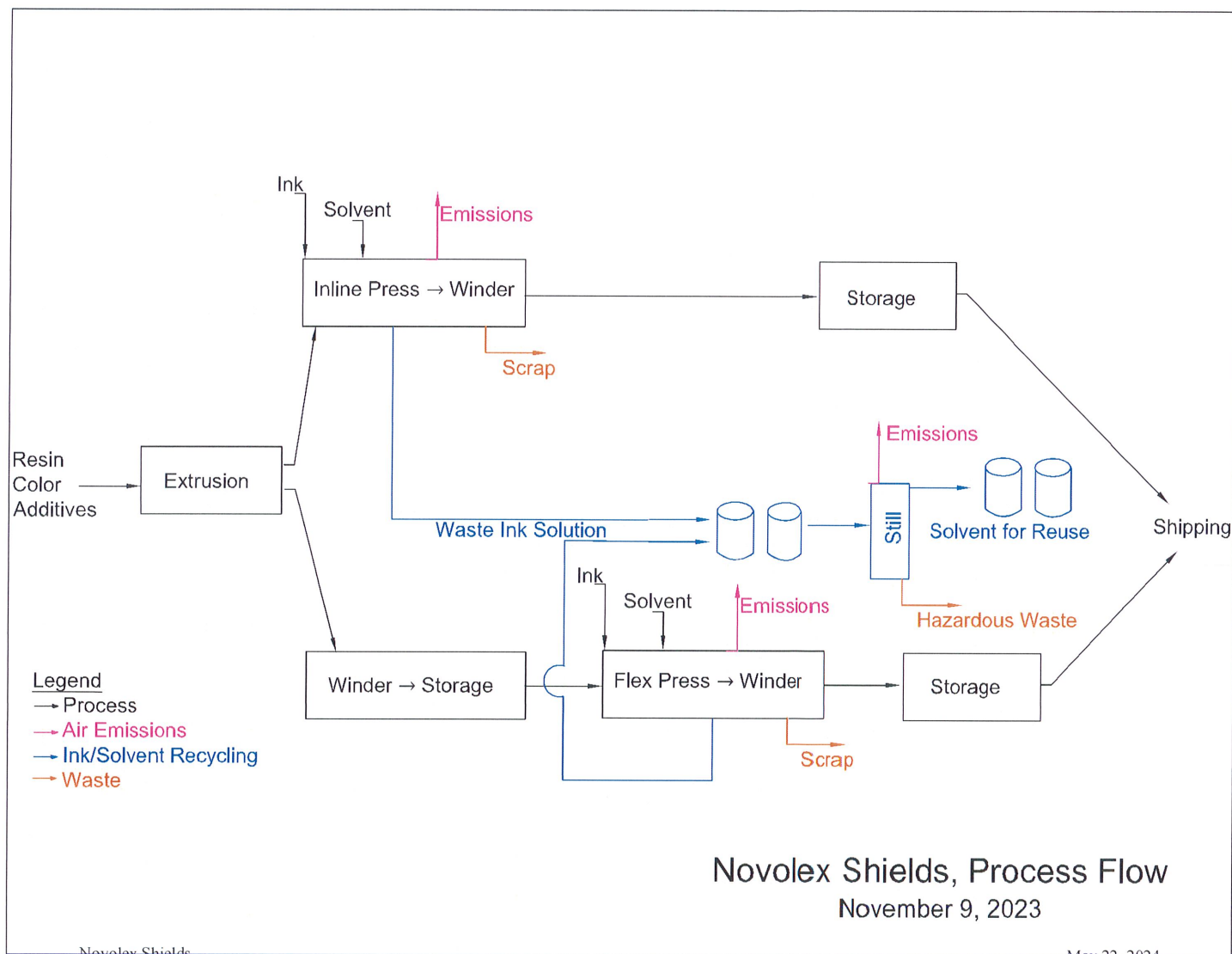
² WAC 18-04-030(1) (effective 02/01/1975) and WAC 173-403-030(3) (effective 03/06/1985)

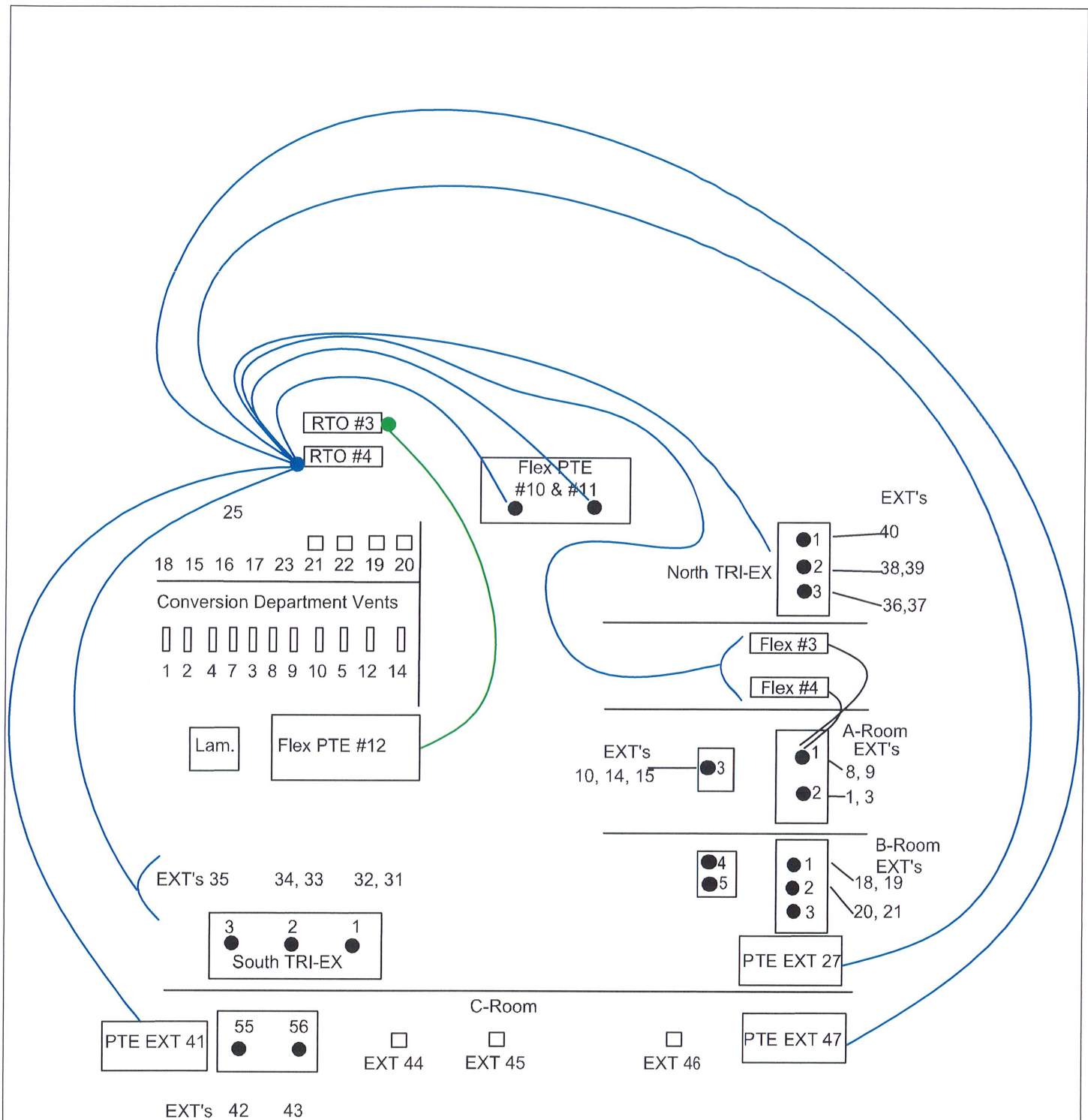
³ 40 CFR 52.21(b)(14)(iii)(a)

⁴ 40 CFR 52.21(b)(1)(i)(a)

- 1) Fugitive and point source emissions for this project were considered per WAC 173-400-810(14)(e)(xxvii).
- 2) The two new portable printing presses have a combined potential to emit of 98 tons per year of VOCs as described on page 1-1 which is below the major source threshold of 100 tpy per WAC 173-400-810(14)(a). As such this project is a not a major source for ozone per WAC 173-400-810(14)(d).
- 3) Furthermore, in determining the net emissions increase associated with this project, the maximum average emission rate from the 3 presses that will contemporaneously be removed – portable printing press 7 and flex presses 1 and 3 – was also considered. The maximum average emission rate over a consecutive 24-month period in the last 10 years occurred between January 2014 and December 2015. The average actual emissions from the three presses being removed is 5.8 tons of VOC per year. Therefore, the net emissions increase is 91.4 tons VOC. The net emissions increase is below the 100-ton PSD threshold.

Therefore this project is not a major modification of a major source, not a major source, and not subject to PSD.





Legend:

●Roof Vents

EXT = Extruder with Inline Press

FLEX = Standalone Press

PTE= Permanent Total Enclosure

Novolex Shields Roof Vents

November 9, 2023

Attachment 2
Emissions Inventory

Emission Calculations
Derivation of Emission Factors

Bell-Mark Portable Printing Presses

Source	Emission Factor ¹ (lbs VOC/printed lbs)	Maximum Emission Rate ² (tons VOC/year)	Exemption Level (tpy)	Exceeds Threshold?	Capture Efficiency ³	Destruction Efficiency ³	Captured and Destroyed VOC Emissions (lbs/yr)	Non-Captured and Non-Destroyed VOC Emissions (lbs/yr)	Total VOC Emissions (tpy)
44" Printing Presses	0.02792	97.7	2	Yes	0%	0%	0	195,432	97.7

Assumptions:

- VOC emissions are determined based on maximum VOC's applied per printed pound for the 6-year annual period beginning 2018. (see p 2-2).
- Maximum printed lbs will be: 3,500,000 lbs/year each for 2 portable presses
- The Portable Presses will not have control equipment.

Pollutant			Uncontrolled PTE		Averaging Period	De minimis ^{2,3}	Exceeds de minimis?	Controlled (0%) PTE	SQER ⁴	Exceeds SQER?
Toxic Pollutant	CAS	Category	Emission Factors (lb/printed lbs) ¹	Annual (lb/year)		(lb/avg period)		Annual (lb/year)	(lb/avg period)	
2-Butoxy Ethanol	111-76-2	TAP	1.05E-05	73.77	day	0.30	Yes	74	6.1	No
Acetaldehyde	75-07-0	HAP/TAP	4.01E-10	2.8E-03	year	3.0	No	0	60	NA
Butanone	78-93-3	TAP	0.00E+00	0	day	19	No	0	270	NA
Copper Compounds	C7440-50-8	TAP	4.59E-05	321.6	hour	9.3E-03	Yes	322	0.19	No
Diethylene Glycol Monoethyl Et	111-90-0	HAP	6.26E-08	0.4	n.r.	n.r.	NA	0	n.r.	NA
Ethanol	64-17-5	n.r.	1.53E-03	10679.2	n.r.	n.r.	NA	10679	n.r.	NA
Ethylbenzene	100-41-4	HAP/TAP	0.00E+00	0	year	3.2	No	0	65	NA
Ethylene Glycol	107-21-1	HAP/TAP	5.20E-08	0.36	day	1.5	No	0	30	NA
Glycol Ether EP [EGPE]	2807-30-9	HAP	5.21E-05	364.49	n.r.	n.r.	NA	364	n.r.	NA
Glycol Ether PM [PGME]	107-98-2	TAP	9.61E-06	67.24	day	26	No	67	520	NA
Hexamethylene diisocyanate	822-06-0	HAP/TAP	0.00E+00	0	day	2.6E-04	No	0	5.2E-03	NA
Isopropyl Alcohol	67-63-0	TAP	3.90E-04	2733	hour	0.30	Yes	2733	5.9	No
MIBK	108-10-1	HAP/TAP	2.90E-06	20.32	day	11	No	20	220	NA
n-Propyl Acetate	109-60-4	n.r.	3.33E-03	23277.06	n.r.	n.r.	NA	23277	n.r.	NA
n-Propyl Alcohol	71-23-8	n.r.	2.16E-02	151208.21	n.r.	n.r.	NA	151208	n.r.	NA
Toluene	108-88-3	HAP/TAP	0.00E+00	0	day	19	No	0	370	NA
Xylene	1330-20-7	HAP/TAP	0.00E+00	0	day	8.2E-01	No	0	16	NA

Note:

- Since lower toxicity inks are used today than in 2003, emission factors are defined based on the worst case per printed pound for the 6-year annual period beginning 2018. (see p. 2-2).
- De minimis threshold (WAC 173-460-150) compared to the maximum uncontrolled PTE of each pollutant. Exceeding De minimis triggers permitting and additional assessment.
- Maximum daily emissions calculated assuming 30,000 lb/day/press.
- SQER threshold (WAC 173-460-150) compared to the maximum controlled PTE of each pollutant. Exceeding SQER triggers modeling.

Emission Calculations
Derivation of Emission Factors

Metric	CAS #		2023	2022	2021	2020	2019	2018
VOCs (lbs)		Criteria	1742530.11	1749157	2199857	2337474	2080009	1804715
2-Butoxy Ethanol (TAP)	111-76-2	TAP	0	0	0	0	0	700
Acetaldehyde (HAP)	75-07-0	HAP	0	0	0	0	0.02	0.026654
Butanone [MEK] (TAP)	78-93-3	TAP	0	0	0	0	0	0
Copper Compounds (TAP)	C7440-50-8	TAP	1	701.2	815.4	1015	0	3051.06
Diethylene Glycol Monoethyl E	111-90-0	HAP	5	1.8	0.8	0	3.09	0.88
Ethanol (N.R.)	64-17-5	N.R.	39311	55331.52	70468.76	79431.66	84658.89	101330
Ethylbenzene (HAP)	100-41-4	HAP	0	0	0	0	0	0
Ethylene Glycol (HAP)	107-21-1	HAP	0	0	0	0.4	4.2	0
Glycol Ether EP [EGPE], (HAP)	2807-30-9	HAP	0	0	0	357	4203	380.62
Glycol Ether PM [PGME], (TAP)	107-98-2	TAP	0	140	817	744.55	748.04	638.04
Hexamethylene-di-isocyanate	822-06-0	HAP	0	0	0	0	0	0
Isopropyl Alcohol (TAP)	67-63-0	TAP	22648	27923.69	25883.53	28287.67	22044.29	25932.93
MIBK (HAP)	108-10-1	HAP	1	1	3.2	2.7	49.28	192.78
n-Propyl Acetate (N.R.)	109-60-4	N.R.	214865.484	215021.6	264906.4	278405.7	241866.9	200849.5
n-Propyl Alcohol (N.R.)	71-23-8	N.R.	1360502.36	1345235	1723044	1808528	1641788	1412645
Toluene (HAP)	108-88-3	HAP	0	0	0	0	0	0
Vinyl Acetate	108-05-4	HAP	0	0	0	0	0	0
Xylene (HAP)	1330-20-7	HAP	0	0	0	0	0	0
Printed Pounds			79885127	75788551	92968687	83723614	80718763	66419919

Emission Factors (lbs/printed pounds)	2023	2022	2021	2020	2019	2018	Max EF
VOCs	0.02181295	0.023079	0.023662	0.027919	0.025769	0.027171	0.027919
2-Butoxy Ethanol (TAP)	0	0	0	0	0	0	1.05E-05
Acetaldehyde (HAP)	0	0	0	0	2.48E-10	4.01E-10	4.01E-10
Butanone [MEK] (TAP)	0	0	0	0	0	0	0
Copper Compounds (TAP)	1.2518E-08	9.25E-06	8.77E-06	1.21E-05	0	4.59E-05	4.59E-05
Diethylene Glycol Monoethyl Ether (HAP)	6.259E-08	2.38E-08	8.61E-09	0	3.83E-08	1.32E-08	6.26E-08
Ethanol (N.R.)	0.00049209	0.00073	0.000758	0.000949	0.001049	0.001526	0.001526
Ethylbenzene (HAP)	0	0	0	0	0	0	0
Ethylene Glycol (HAP)	0	0	0	4.78E-09	5.2E-08	0	5.2E-08
Glycol Ether EP [EGPE], (HAP)	0	0	0	4.26E-06	5.21E-05	5.73E-06	5.21E-05
Glycol Ether PM [PGME], (TAP)	0	1.85E-06	8.79E-06	8.89E-06	9.27E-06	9.61E-06	9.61E-06
Hexamethylene-di-isocyanate (HAP)	0	0	0	0	0	0	0
Isopropyl Alcohol (TAP)	0.00028351	0.000368	0.000278	0.000338	0.000273	0.00039	0.00039
MIBK (HAP)	1.2518E-08	1.32E-08	3.44E-08	3.22E-08	6.11E-07	2.9E-06	2.9E-06
n-Propyl Acetate (N.R.)	0.00268968	0.002837	0.002849	0.003325	0.002996	0.003024	0.003325
n-Propyl Alcohol (N.R.)	0.01703073	0.01775	0.018534	0.021601	0.02034	0.021268	0.021601
Toluene (HAP)	0	0	0	0	0	0	0
Vinyl Acetate	0	0	0	0	0	0	0
Xylene (HAP)	0	0	0	0	0	0	0

Historical Actual Emissions for PSD Determination

	2014	2015	2016	2017	2018	2019	2020	2021	2022	Maximum Average Rate in a 24-month
	Total Emissions (lbs)	Total Emissions (lbs)	Total Emissions (lbs)	Total Emissions (lbs)	Total Emissions (lbs)	Total Emissions (lbs)	Total Emissions (lbs)	Total Emissions (lbs)	Total Emissions (lbs)	
Extr/IP 7	3,467	2,614	2,043	342	0	0	0	0	0	3,041
Flex 1	4,561	5	0	0	0	0	0	0	0	2,283
Flex 3	12,440	0	15	665	1,138	0	0	0	0	6,220
Total	20,468	2,619	2,058	1,007	1,138	0	0	0	0	11,544
	10.2	1.3	1.0	0.50	0.57	0	0	0	0	5.8

lbs
tons

*Per 40 CFR 52.21(b)(21)(ii)