



TECHNICAL SUPPORT DOCUMENT

**Air Discharge Permit ADP 25-3710
Air Discharge Permit Application CL-3298**

Issued: June 25, 2025

ePac Portland, LLC

SWCAA ID - 2733

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ABBREVIATIONS

List of Acronyms

| | | | |
|-------|---|----------|---|
| ADP | Air Discharge Permit | PSD | Prevention of Significant Deterioration |
| AP-42 | Compilation of Emission Factors, AP-42, 5th Edition, Volume 1, Stationary Point and Area Sources – published by EPA | RCW | Revised Code of Washington |
| ASIL | Acceptable Source Impact Level | SCC | Source Classification Code |
| BACT | Best available control technology | SDS | Safety Data Sheet |
| CAM | Compliance Assurance Monitoring | SQER | Small Quantity Emission Rate listed in WAC 173-460 |
| CAS# | Chemical Abstracts Service registry number | Standard | Standard conditions at a temperature of 68°F (20°C) and a pressure of 29.92 in Hg (760 mm Hg) |
| CFR | Code of Federal Regulations | SWCAA | Southwest Clean Air Agency |
| EPA | U.S. Environmental Protection Agency | T-BACT | Best Available Control Technology for toxic air pollutants |
| EU | Emission Unit | WAC | Washington Administrative Code |
| NOV | Notice of Violation/ | | |
| NSPS | New Source Performance Standard | | |

List of Units and Measures

| | | | |
|-------------------|-----------------------------------|-------|----------------------------------|
| µg/m ³ | Micrograms per cubic meter | ppmv | Parts per million by volume |
| acfm | Actual cubic foot per minute | ppmvd | Parts per million by volume, dry |
| gr/dscf | Grain per dry standard cubic foot | ppmw | Parts per million by weight |
| lb/hr | Pounds per hour | scfm | Standard cubic foot per minute |
| lb/yr | Pounds per year | tpy | Tons per year |
| MMBtu | Million British thermal unit | | |
| ppm | Parts per million | | |

List of Chemical Symbols, Formulas, and Pollutants

| | | | |
|-------------------|---|-------------------|--|
| CO | Carbon monoxide | PM | Particulate Matter with an aerodynamic diameter 100 µm or less |
| CO ₂ | Carbon dioxide | | |
| CO ₂ e | Carbon dioxide equivalent | | |
| HAP | Hazardous air pollutant listed pursuant to Section 112 of the Federal Clean Air Act | PM ₁₀ | PM with an aerodynamic diameter 10 µm or less |
| NO _x | Nitrogen oxides | PM _{2.5} | PM with an aerodynamic diameter 2.5 µm or less |
| O ₂ | Oxygen | SO ₂ | Sulfur dioxide |
| O ₃ | Ozone | TAP | Toxic air pollutant pursuant to Chapter 173-460 WAC |
| | | VOC | Volatile organic compound |

Terms not otherwise defined have the meaning assigned to them in the referenced regulations or the dictionary definition, as appropriate.

1. FACILITY IDENTIFICATION

Applicant Name: ePac Portland, LLC
Applicant Address: 8233 Forsyth Street, Suite 116, Middleton, WI 53562

Facility Name: ePac Portland, LLC
Facility Address: 18110 SE 34th Street, Vancouver, WA 98683

SWCAA Identification: 2733

Contact Person: Samir Patel, VP of Development

Primary Process: Commercial Digital Printing
SIC/NAICS Code: 2759 /
323115 /

Facility Latitude and Longitude: 45° 35' 58.04" N
122° 29' 4.54" W

Facility Classification: Natural Minor

2. FACILITY DESCRIPTION

ePac Portland, LLC (ePac) operates a digital printing facility that performs flexible packaging printing operations (pressure-sensitive labels, shrink sleeve, wraparound labels, and in-mold labels).

3. CURRENT PERMITTING ACTION

This permitting action is in response to Air Discharge Permit application number CL-3298 (ADP Application CL-3298) dated May 1, 2025. ePac submitted ADP Application CL-3298 requesting approval of the following:

- Installation of one new Hewlett Packard Indigo 25000 digital printing press configured with an Enercon O3X-10 ozone decomposer.

The current permitting action provides approval for new equipment installation as proposed in ADP Application CL-3298. ADP 25-3710 will supersede ADP 21-3496 in its entirety.

4. PROCESS DESCRIPTION

- 4.a. Digital Printing Operations (existing). Two web-fed digital printing presses are used to produce images by laying down impressions of each required color separately on a photo imaging plate. Up to seven (7) ink colors may be used in the digital printing operations. The amount of impressions applied per hour is constant so press output is reduced with job runs that utilize more ink colors. Each digital printer typically runs at a rate of up to 100 linear feet per minute in 4-color mode and 82 feet per minute in 5-color mode.

Digital printing presses use inks that consist of color pigments, binders, and other additives suspended in a non-polar, low-volatility petroleum distillate (Imaging Oil) that is identified on the safety data sheets (SDS) as petroleum hydrocarbon CAS 90622-58-5. The low-volatility petroleum hydrocarbon has a vapor pressure of 0.3 mm Hg at 20°C and an initial boiling point of 372°F. The inks are received in cartridges

and generally contain between 20 and 30% solids with the remainder comprised of imaging oil. Inks are diluted in the ink tanks with the addition of new or recovered imaging oil. The imaging oil is flashed off when the image is transferred to an electrically heated blanket roller. Ink resins left behind coalesce into a thin, cohesive ink film on the blanket roller and are transferred to the print media where the inks immediately solidify and bond to the lower-temperature substrate.

Evaporated imaging oil is collected by an internal vapor hood and routed to an onboard water-chilled condenser to recover the oil for reuse in the printing operations. The onboard oil vapor recovery system has a recovery efficiency of 90%. Recovered imaging oil is reused on-site in the printing process. Excess imaging oil that cannot be reused is collected and shipped as waste to an approved off-site disposal facility. Unrecovered image oil is captured with a ventilation system and emitted as volatile organic compound (VOC) emissions.

Each digital printing press is equipped with a corona treating unit built into the priming unwinder of the unit. This equipment uses an electric charge to condition the substrate surface to promote adhesion of the ink solids and has the potential to create ozone. Hot air and ozone produced by the unwinder priming process are exhausted to an ozone decomposition unit and then through a separate exhaust to the ambient air.

A laminator is used to apply/overlay printed material surfaces with a layer of protective film subsequent to printing. This process does not use solvents. Adhesives used in the lamination process have the potential to contain methylene diphenyl diisocyanate (CAS No. 101-68-8), which is typically used in polyurethane coatings and defined as a regulated hazardous air pollutant (HAP). The solventless laminator is equipped with two (2) corona substrate treating units manufactured by Enercon Industries Corp. Process air from each treater is captured with the use of a ventilation system and sent to ozone decomposers prior to being discharged to the ambient air.

ADP Application CL-3298. ePac proposes to install a third digital printer, which will operate using the same process as the existing printers. No process changes are proposed.

5. EQUIPMENT/ACTIVITY IDENTIFICATION

5.a. Digital Printing Press 1 (existing). This unit is a web fed, digital printing press described as follows:

| | |
|-------------------|---|
| Make / Model: | Hewlett Packard Indigo 20000 (s/n 51000348) |
| Web Width: | 30" |
| Capacity: | 135 linear feet per minute (up to 7 colors) |
| Ozone Decomposer: | (1) Vetaphone OZC-5 |
| Exhaust Rate: | 423.8 acfm (12 m ³ /min) |
| Exhaust: | 6" diameter, vertical at ~22' above ground level. |
| Location: | 45° 35' 58.04" N 122° 29' 4.54" W |

5.b. Digital Printing Press 2 (existing). This unit is a web fed, digital printing press described as follows:

Make / Model: Hewlett Packard Indigo 20000 (s/n 51000349)
 Web Width: 30"
 Capacity: 135 linear feet per minute (up to 7 colors)
 Ozone Decomposer: (1) Vetaphone OZC-5
 Exhaust Rate: 423.8 acfm (12 m³/min)
 Exhaust: 6" diameter, vertical at ~22' above ground level.
 Location: 45° 35' 58.04" N 122° 29' 4.54" W

5.c. Digital Printing Press 3 (new). This unit is a web fed, digital printing press described as follows:

Make / Model: Hewlett Packard Indigo 25000 (s/n IL51100001)
 Web Width: 30"
 Capacity: 138 linear feet per minute (up to 7 colors)
 Ozone Decomposer: (1) Enercon O3X-10 (s/n 156647-1-1)
 Exhaust Rate: 423.8 acfm (12 m³/min)
 Exhaust: 6" diameter, vertical at ~22' above ground level.
 Location: 45° 35' 58.04" N 122° 29' 4.54" W

ADP Application CL-3298. ePac proposes to install a new digital printing press that has the same operating capacities and emissions as the existing printing presses. No changes are proposed to the existing presses.

5.d. Laminator (existing). This unit is a solventless laminator described as follows:

Make / Model: Nordmeccanica Super Simplex L1100 (s/n 3453)
 Ozone Decomposer: Vetaphone OZC-M10
 Exhaust Rate: 529.7 acfm (15 m³/min)
 Exhaust Stack: 6" diameter, vertical at ~28' above grade.
 Location: 45° 35' 58.04" N 122° 29' 4.54" W

5.e. Insignificant Emission Units. The following pieces of facility equipment have been determined to have insignificant emissions, and are not registered as emission units:

None identified.

5.f. Equipment/Activity Summary.

| ID No. | Equipment/Activity | Control Equipment/Measure |
|--------|--|--|
| 1 | Digital Printing Press 1 (Hewlett Packard Indigo 20000) | Low Volatility Inks, Internal Vapor Recovery, Ozone Decomposer |
| 2 | Digital Printing Press 2 (Hewlett Packard Indigo 20000) | Low Volatility Inks, Internal Vapor Recovery, Ozone Decomposer |
| 3 | Digital Printing Press 3 (Hewlett Packard Indigo 25000) | Low Volatility Inks, Internal Vapor Recovery, Ozone Decomposer |

| ID No. | Equipment/Activity | Control Equipment/Measure |
|---------------|--|----------------------------------|
| 4 | Laminator (Nordmeccanica Super Simplex L1100) | Ozone Decomposer |

6. EMISSIONS DETERMINATION

Emissions to the ambient atmosphere from printing and laminating operations, as proposed in ADP Application CL-3298, consist of volatile organic compounds (VOC), ozone (O₃), toxic air pollutants (TAPs), and hazardous air pollutants (HAPs).

Unless otherwise specified by SWCAA, actual emissions must be determined using the specified input parameter listed for each emission unit and the following hierarchy of methodologies:

- Continuous emissions monitoring system (CEMS) data;
- Source emissions test data (EPA reference method). When source emissions test data conflicts with CEMS data for the time period of a source test, source test data must be used;
- Source emissions test data (other test method); and
- Emission factors or methodology provided in this TSD.

- 6.a. Printing Press Inks (*modified*). Potential emissions from printing press inks are calculated based on maximum estimated ink consumption, SDS information for individual ink products, and material balance methodology. Information provided by the manufacturer (Hewlett Packard) indicates the printer exhaust condensers are capable of maintaining a 90% control efficiency for VOC. Annual emissions will be calculated based on actual ink usage using the same methodology.

| Printing Operations | | |
|------------------------------|-----------|-----------|
| Annual Ink/Oil Consumption = | 332,794 | lb/yr |
| Annual VOC content = | 233,563 | lb/yr |
| VOC control efficiency = | 90% | wt % |
| | Emissions | Emissions |
| Pollutant | lb/yr | tpy |
| VOC | 23,356 | 11.68 |

- 6.b. Printing Press 1 - Ozone (*existing*). Ozone is emitted from the corona treater installed on Printing Press 1. Emissions are controlled by an integral ozone decomposer. Potential ozone emissions from press operation are calculated based on 8,760 hr/yr of operation, maximum power consumption of 2.0 kW and an emission factor from the manufacturer. The manufacturer has submitted information indicating the ozone decomposer unit is capable of maintaining a 99% control efficiency for ozone generated in the production process. Annual emissions will be calculated based on actual operation using the same methodology.

| | | | | |
|--------------------------|--------|---------------------|-------|------------------------|
| Printing Press 1 - Ozone | | | | |
| Operation = | 8,760 | hours | | |
| Exhaust rate = | 12.0 | m ³ /min | | |
| Exhaust concentration = | 300.0 | ppmv | | |
| Destruction efficiency = | 0.99 | | | |
| Pollutant | lb/hr | lb/yr | tpy | Emission Factor Source |
| O ₃ | 0.0095 | 83 | 0.042 | Mfg |

- 6.c. Printing Press 2 - Ozone (*existing*). Ozone is emitted from the corona treater installed on Printing Press 2. Emissions are controlled by an integral ozone decomposer. Potential ozone emissions from press operation are calculated based on 8,760 hr/yr of operation, maximum power consumption of 2.0 kW and an emission factor from the manufacturer. The manufacturer has submitted information indicating the ozone decomposer unit is capable of maintaining a 99% control efficiency for ozone generated in the production process. Annual emissions will be calculated based on actual operation using the same methodology.

| | | | | |
|--------------------------|--------|---------------------|-------|------------------------|
| Printing Press 2 - Ozone | | | | |
| Operation = | 8,760 | hours | | |
| Exhaust rate = | 12.0 | m ³ /min | | |
| Exhaust concentration = | 300.0 | ppmv | | |
| Destruction efficiency = | 0.99 | | | |
| Pollutant | lb/hr | lb/yr | tpy | Emission Factor Source |
| O ₃ | 0.0095 | 83 | 0.042 | Mfg |

- 6.d. Printing Press 3 - Ozone (*new*). Ozone is emitted from the corona treater installed on Printing Press 2. Emissions are controlled by an integral ozone decomposer. Potential ozone emissions from press operation are calculated based on 8,760 hr/yr of operation, maximum power consumption of 2.0 kW and an emission factor from the manufacturer. The manufacturer has submitted information indicating the ozone decomposer unit is capable of maintaining a 99% control efficiency for ozone generated in the production process. Annual emissions will be calculated based on actual operation using the same methodology.

| | | | | |
|--------------------------|--------|---------------------|-------|------------------------|
| Printing Press 2 - Ozone | | | | |
| Operation = | 8,760 | hours | | |
| Exhaust rate = | 12.0 | m ³ /min | | |
| Exhaust concentration = | 300.0 | ppmv | | |
| Destruction efficiency = | 0.99 | | | |
| Pollutant | lb/hr | lb/yr | tpy | Emission Factor Source |
| O ₃ | 0.0095 | 83 | 0.042 | Mfg |

- 6.e. Laminator - Ozone (existing). Ozone is emitted from the corona treater installed on the Laminator. Emissions are controlled by two integral ozone decomposers. Potential ozone emissions from operation of the Laminator are calculated based on 8,760 hr/yr of operation, use of two decomposer units, 12 m³/min of exhaust per decomposer unit, and a maximum ozone exhaust concentration of 300 ppmv. The manufacturer has submitted information indicating the ozone decomposer units are capable of maintaining a 99% control efficiency for ozone generated in the production process. Annual emissions will be calculated based on actual operation using the same methodology.

| | | | | | |
|--------------------------|----------|--------|-------|-------|------------------------|
| Laminator - Ozone | | | | | |
| Operation = | 8,760 | hours | | | |
| Power consumption = | 2.0 | kW | | | |
| Destruction efficiency = | 0.99 | | | | |
| | EF | | | | |
| Pollutant | lb/kW*hr | lb/hr | lb/yr | tpy | Emission Factor Source |
| O ₃ | 7.30E-02 | 0.0015 | 13 | 0.006 | Mfg |

- 6.f. Laminator - MDI (existing). Adhesives used in the lamination process have the potential to contain methylene diphenyl diisocyanate (MDI CAS No. 101-68-8). MDI emissions are very small because the compound has a low vapor pressure and polymerizes to become part of the finished product (cured adhesive). Potential MDI emissions from operation of the Laminator are calculated based on 8,760 hr/yr of operation, a maximum production rate of 100 ft/min, a laminator width of 2.5 ft, and an emission formula from the Alliance for the Polyurethanes Industry (trade group). Annual emissions will be calculated based on actual production using the same methodology.

| | | | | | |
|------------------------|----------------------------|--------------------|-------|--------|------------------------------------|
| Laminator - MDI | | | | | |
| Laminator production = | 12,207,425 | m ² /yr | | | |
| Max production rate = | 33,445 | m ² /dy | | | |
| | EF | | | | |
| Pollutant | g/m ² laminated | lb/hr | lb/yr | tpy | Emission Factor Source |
| MDI (101-68-8) | 6.381E-06 | 1.960E-05 | 0.172 | 0.0001 | Alliance for Polyurethane Industry |

- 6.g. Emissions Summary/Facility-wide Potential to Emit. Facility-wide potential to emit as calculated in the sections above is summarized below.

| <u>Pollutant</u> | <u>Potential Emissions (tpy)</u> | <u>Project Increase (tpy)</u> |
|-------------------|----------------------------------|-------------------------------|
| NO _x | 0.00 | 0.00 |
| CO | 0.00 | 0.00 |
| VOC | 11.68 | 3.92 |
| SO ₂ | 0.00 | 0.00 |
| Pb | 0.00 | 0.00 |
| PM | 0.00 | 0.00 |
| PM ₁₀ | 0.00 | 0.00 |
| PM _{2.5} | 0.00 | 0.00 |
| O ₃ | 0.13 | 0.04 |
| TAP | 0.0001 | 0.0001 |
| HAP | 0.0001 | 0.0001 |
| CO ₂ e | 0 | 0 |

| <u>Pollutant</u> | <u>CAS Number</u> | <u>Category</u> | <u>Facility-wide Emissions (lb/yr)</u> | <u>Project Increase (lb/yr)</u> | <u>WAC 173-460 SQER (lb/yr)</u> |
|------------------------|-------------------|-----------------|--|---------------------------------|---------------------------------|
| Methylene Diisocyanate | 101-68-8 | HAP/TAP | 0.17 | 0.0 | 175 |

7. REGULATIONS AND EMISSION STANDARDS

Regulations that have been used to evaluate the acceptability of the proposed facility and establish emission limits and control requirements include, but are not limited to, the regulations, codes, or requirements listed below.

- 7.a. Title 40 Code of Federal Regulations Part 63 (40 CFR 63) Subpart KK "National Emission Standards for Hazardous Air Pollutants -Printing and Publishing" applies to each new and existing facility that is a major source of HAP and operates publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses. This facility does not operate any of the affected printing presses and is not a major source of HAP so this regulation is not applicable.
- 7.b. 40 CFR 63 Subpart JJJJ "National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating" applies to each new and existing facility that operates web coating lines and is a major source of HAP. Printing lines at the proposed facility meet the definition of a "web coating line", but the facility is not a major source so this regulation is not applicable.
- 7.c. Revised Code of Washington (RCW) 70A.15.2040 empowers any activated air pollution control authority to prepare and develop a comprehensive plan or plans for the prevention, abatement and control of air pollution within its jurisdiction. An air pollution control authority may issue such orders as may be necessary to effectuate the purposes of the Washington Clean Air Act and enforce the same by all appropriate administrative and judicial proceedings subject to the rights of appeal as provided in Chapter 62, Laws of 1970 ex. sess.

- 7.d. RCW 70A.15.2210 provides for the inclusion of conditions of operation as are reasonably necessary to assure the maintenance of compliance with the applicable ordinances, resolutions, rules and regulations when issuing an Air Discharge Permit for installation and establishment of an air contaminant source.
- 7.e. Washington Administrative Code (WAC) 173-460 "Controls for New Sources of Toxic Air Pollutants" requires Best Available Control Technology for toxic air pollutants (T-BACT), identification and quantification of emissions of toxic air pollutants and demonstration of protection of human health and safety. SWCAA implements WAC 173-460 as in effect on August 21, 1998.
- 7.f. WAC 173-476 "Ambient Air Quality Standards" establishes ambient air quality standards for PM₁₀, PM_{2.5}, lead, sulfur dioxide, nitrogen dioxide, ozone, and carbon monoxide in the ambient air, which shall not be exceeded.
- 7.g. SWCAA 400-040 "General Standards for Maximum Emissions" requires all new and existing sources and emission units to meet certain performance standards with respect to Reasonably Available Control Technology (RACT), visible emissions, fallout, fugitive emissions, odors, emissions detrimental to persons or property, sulfur dioxide, concealment and masking, and fugitive dust.
- 7.h. SWCAA 400-050 "Emission Standards for Combustion and Incineration Units" requires that all provisions of SWCAA 400-040 be met and that no person shall cause or permit the emission of particulate matter from any combustion or incineration unit in excess of 0.23 grams per dry cubic meter (0.1 grains per dry standard cubic foot) of exhaust gas at standard conditions.
- 7.i. SWCAA 400-060 "Emission Standards for General Process Units" prohibits particulate matter emissions from all new and existing process units in excess of 0.1 grains per dry standard cubic foot of exhaust gas.
- 7.j. SWCAA 400-109 "Air Discharge Permit Applications" requires that an Air Discharge Permit application be submitted for all new installations, modifications, changes, or alterations to process and emission control equipment consistent with the definition of "new source". Sources wishing to modify existing permit terms may submit an Air Discharge Permit application to request such changes. An Air Discharge Permit must be issued, or written confirmation of exempt status must be received, before beginning any actual construction, or implementing any other modification, change, or alteration of existing equipment, processes, or permits.
- 7.k. SWCAA 400-110 "New Source Review" requires that SWCAA issue an Air Discharge Permit in response to an Air Discharge Permit application prior to establishment of the new source, emission unit, or modification.
- 7.l. SWCAA 400-111 "Requirements for Sources in a Maintenance Plan Area" requires that no approval to construct or alter an air contaminant source shall be granted unless it is evidenced that:
- (1) The equipment or technology is designed and will be installed to operate without causing a violation of the applicable emission standards;
 - (2) Emissions will be minimized to the extent that the new source will not exceed emission levels or other requirements provided in the maintenance plan;
 - (3) Best Available Control Technology will be employed for all air contaminants to be emitted by the proposed equipment;
 - (4) The proposed equipment will not cause any ambient air quality standard to be exceeded; and
 - (5) If the proposed equipment or facility will emit any toxic air pollutant regulated under WAC 173-460, the proposed equipment and control measures will meet all the requirements of that Chapter.

- 7.m. SWCAA 490 "Emission Standards and Controls for Sources Emitting Volatile Organic Compounds" establishes emission standards and control requirements for sources of VOC located in ozone nonattainment or maintenance plan areas. SWCAA 490-204 "Graphic Arts Systems" applies to printing systems that use more than 100 tons per year of VOCs as a component of ink, for the thinning of ink, cleaning of presses, press components and equipment. The proposed facility will not use more than 100 tons per year of VOC as an ink component. Therefore, this regulation is not applicable.

8. RACT/BACT/BART/LAER/PSD/CAM DETERMINATIONS

The proposed equipment and control systems incorporate Best Available Control Technology (BACT) for the types and amounts of air contaminants emitted by the processes as described below:

New BACT Determinations

- 8.a. BACT Determination – Digital Printing. The use of low volatility inks and printing presses with internal vapor recovery and recycling systems that recover >90% of VOC emissions has been determined to meet BACT for the types and quantities of air contaminants emitted from digital printing presses at this facility.
- 8.b. BACT Determination – Corona Treatment. The use of process enclosure and decomposers capable of maintaining an ozone destruction efficiency of 99% has been determined to meet BACT for the types and quantities of air contaminants emitted from corona treatment operations at this facility.

Previous BACT Determinations

- 8.c. BACT Determination – Digital Printing (ADP 21-3496). The use of low volatility inks and printing presses with internal vapor recovery and recycling systems that recover >90% of VOC emissions has been determined to meet BACT for the types and quantities of air contaminants emitted from printing operations at this facility.
- 8.d. BACT Determination – Corona Treatment (ADP 21-3496). The use of process enclosure and decomposers capable of maintaining an ozone destruction efficiency of 99% has been determined to meet BACT for the types and quantities of air contaminants emitted from corona treatment operations at this facility.
- 8.e. BACT Determination – Lamination (ADP 21-3496). The use of solventless adhesives and high vapor pressure adhesive constituents has been determined to meet BACT and T-BACT for the types and quantities of air contaminants emitted from the laminating operation at this facility.

Other Determinations

- 8.f. Prevention of Significant Deterioration (PSD) Applicability Determination. The potential to emit of this facility is less than applicable PSD applicability thresholds. Likewise, this permitting action will not result in a potential increase in emissions equal to or greater than the PSD thresholds. Therefore, PSD review is not applicable to this action.
- 8.g. Compliance Assurance Monitoring (CAM) Applicability Determination. CAM is not applicable to any emission unit at this facility because it is not a major source and is not required to obtain a Part 70 permit.

9. AMBIENT IMPACT ANALYSIS

- 9.a. Criteria Air Pollutant Review. Criteria pollutant emissions from approved operations are not expected to cause an adverse impact on ambient air quality.
- 9.b. Toxic Air Pollutant Review. The new equipment approved by this permitting action will not change the previously approved ambient impact of ePAC's facility.

Conclusions

- 9.c. Installation of a new digital printer, as proposed in ADP Application CL-3298, will not cause the ambient air quality requirements of Title 40 Code of Federal Regulations (CFR) Part 50 "National Primary and Secondary Ambient Air Quality Standards" to be violated.
- 9.d. Installation of a new digital printer, as proposed in ADP Application CL-3298, will not cause the requirements of WAC 173-460 "Controls for New Sources of Toxic Air Pollutants" or WAC 173-476 "Ambient Air Quality Standards" to be violated.
- 9.e. Installation of a new digital printer, as proposed in ADP Application CL-3298, will not cause a violation of emission standards for sources as established under SWCAA General Regulations Sections 400-040 "General Standards for Maximum Emissions," 400-050 "Emission Standards for Combustion and Incineration Units," and 400-060 "Emission Standards for General Process Units."

10. DISCUSSION OF APPROVAL CONDITIONS

SWCAA has made a determination to issue ADP 25-3710 in response to ADP Application CL-3298. ADP 25-3710 contains approval requirements deemed necessary to assure compliance with applicable regulations and emission standards as discussed below.

- 10.a. Supersession of Previous Permits. ADP 25-3710 supersedes ADP 21-3496 in its entirety.
- 10.b. General Basis. Permit requirements for equipment affected by this permitting action incorporate the operating schemes proposed by the applicant in ADP Application CL-3298. Permit requirements established by this action are intended to implement BACT, minimize emissions, and assure compliance with applicable requirements on a continuous basis. Emission limits for approved equipment are based on the maximum potential emissions calculated in Section 6 of this Technical Support Document.
- 10.c. Monitoring and Recordkeeping Requirements. ADP 25-3710 establishes monitoring and recordkeeping requirements sufficient to document compliance with applicable emission limits, ensure proper operation of approved equipment and provide for compliance with generally applicable requirements. Specific requirements are established for hours of operation, ink consumption, and laminator production.
- 10.d. Reporting Requirements. ADP 25-3710 establishes general reporting requirements for annual air emissions, upset conditions and excess emissions. Specific requirements are established for hours of operation, ink consumption, and laminator production. Reports are to be submitted on an annual basis.

- 10.e. Digital Printing. Visible emissions from process ventilation systems have been limited to zero percent opacity, consistent with proper operation. Ozone decomposer units are required to be in operation whenever corona treatment is being performed. Permit requirements require that SWCAA be notified prior to the use of new inks or printing materials at the facility. This notification will allow SWCAA and the permittee to assess the potential adverse air quality impact of a process or material change. Changes that result in significant air quality impacts will require New Source Review prior to implementation.

ADP Application CL-3298. ePac is not proposing any changes to digital printing processes at the facility. This permitting action only adds an additional printing press for the purpose of expanding general capacity.

- 10.f. Requirements for Unmodified Emission Units. Permit requirements for existing emission units not affected by ADP Application CL-3298 are carried forward unchanged from ADP 21-3496.

11. START-UP AND SHUTDOWN/ALTERNATIVE OPERATING SCENARIOS/POLLUTION PREVENTION

- 11.a. Start-up and Shutdown Provisions. Pursuant to SWCAA 400-081 "Start-up and Shutdown", technology based emission standards and control technology determinations shall take into consideration the physical and operational ability of a source to comply with the applicable standards during start-up or shutdown. Where it is determined that a source is not capable of achieving continuous compliance with an emission standard during start-up or shutdown, SWCAA shall include appropriate emission limitations, operating parameters, or other criteria to regulate performance of the source during start-up or shutdown.

The applicant did not identify any start-up and shutdown periods during which affected equipment is not capable of achieving continuous compliance with applicable technology determinations or approval conditions. To SWCAA's knowledge, this facility can comply with all applicable standards during startup and shutdown.

- 11.b. Alternate Operating Scenarios. SWCAA conducted a review of alternate operating scenarios applicable to equipment affected by this permitting action. The permittee did not propose or identify any applicable alternate operating scenarios. Therefore, none were included in the permit requirements.
- 11.c. Pollution Prevention Measures. SWCAA conducted a review of possible pollution prevention measures for the facility. No pollution prevention measures were identified by either the permittee or SWCAA separate from those measures required under BACT considerations. Therefore, none were included in the permit requirements.

12. EMISSION MONITORING AND TESTING

- 12.a. Emission Monitoring – Ozone Decomposers (existing). Emission monitoring of the printer and laminator ozone decomposer units is required on a continuing 12-month cycle. All emission monitoring shall be conducted in accordance with ADP 25-3710, Appendix A.

13. FACILITY HISTORY

- 13.a. Previous Permitting Actions. SWCAA has previously issued the following Permits for this facility:

| <u>Permit Number</u> | <u>Application Number</u> | <u>Date</u> | <u>Purpose</u> |
|--------------------------|-------------------------------|-------------|--|
| 21-3496 | CL-3172 | 12/8/2021 | Installation of a new digital printing facility. |

- 13.b. Compliance History. A search of source records on file at SWCAA identified the following compliance issues at the facility during the past five (5) years.

| <u>Date</u> | <u>NOV Number</u> | <u>Violation</u> |
|-------------|-----------------------|--|
| 3/25/2025 | 11323 | Installation and operation of unpermitted equipment. |
| 10/9/2024 | 11313 | Failure to comply with Notice of Correction 11263. |
| 10/9/2024 | 11312 | Failure to comply with Notice of Correction 10923 and Air Discharge Permit 21-3496. |
| 5/10/2024 | 11263 | Failure to submit 2023 emissions inventory by March 15, 2024 in violation of Air Discharge Permit 21-3496. |
| 7/20/2023 | 10923 | Failure to perform and/or submit annual testing in violation of Air Discharge Permit 21-3496. |

14. PUBLIC INVOLVEMENT OPPORTUNITY

- 14.a. Public Notice for ADP Application CL-3298. Public notice for ADP Application CL-3298 was published on the SWCAA internet website for a minimum of (15) days beginning on May 2, 2025.
- 14.b. Public/Applicant Comment for ADP Application CL-3298. SWCAA did not receive specific comments, a comment period request or any other inquiry from the public regarding this ADP application. Therefore, no public comment period was provided for this permitting action.
- 14.c. State Environmental Policy Act. A complete SEPA checklist was submitted by ePac Portland, LLC in conjunction with ADP Application CL-3298. After reviewing the checklist, SWCAA has made a Determination of Nonsignificance (DNS 25-025) concurrent with issuance of ADP 25-3710.