



**TECHNICAL SUPPORT DOCUMENT**

**Air Discharge Permit 22-3523  
Air Discharge Permit Application CL-3196**

**Issued: July 7, 2022**

**Pratt Retail Specialties**

**SWCAA ID – 2758**

Prepared By: Vanessa McClelland  
Air Quality Engineer  
Southwest Clean Air Agency

## TABLE OF CONTENTS

1. FACILITY IDENTIFICATION .....	1
2. FACILITY DESCRIPTION .....	1
3. CURRENT PERMITTING ACTION.....	1
4. PROCESS DESCRIPTION .....	1
5. EQUIPMENT/ACTIVITY IDENTIFICATION .....	2
6. EMISSIONS DETERMINATION .....	3
7. REGULATIONS AND EMISSION STANDARDS .....	5
8. RACT/BACT/BART/LAER/PSD/CAM DETERMINATIONS.....	8
9. AMBIENT IMPACT ANALYSIS .....	9
10. DISCUSSION OF APPROVAL CONDITIONS .....	10
11. START-UP AND SHUTDOWN/ALTERNATIVE OPERATING SCENARIOS/POLLUTION PREVENTION.....	11
12. EMISSION MONITORING AND TESTING.....	11
13. FACILITY HISTORY .....	11
14. PUBLIC INVOLVEMENT OPPORTUNITY .....	12

## ABBREVIATIONS

### *List of Acronyms*

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

### *List of Units and Measures*

µg/m <sup>3</sup> .....	Micrograms per cubic meter	MMBtu.....	Million British thermal unit
µm .....	Micrometer (10 <sup>-6</sup> meter)	MMcf .....	Million cubic feet
acfm.....	Actual cubic foot per minute	ppm .....	Parts per million
bhp.....	Brake horsepower	ppmv .....	Parts per million by volume
dscfm.....	Dry Standard cubic foot per minute	ppmvd .....	Parts per million by volume, dry
g/dscm .....	Grams per dry Standard cubic meter	ppmw.....	Parts per million by weight
gpm .....	Gallon per minute	psig.....	Pounds per square inch, gauge
gr/dscf .....	Grain per dry standard cubic foot	rpm .....	Revolution per minute
hp.....	Horsepower	scfm.....	Standard cubic foot per minute
hp-hr.....	Horsepower-hour	tph .....	Ton per hour
		tpy .....	Tons per year

*List of Chemical Symbols, Formulas, and Pollutants*

C <sub>3</sub> H <sub>8</sub> .....	Propane	O <sub>3</sub> .....	Ozone
CH <sub>4</sub> .....	Methane	PM.....	Particulate Matter with an aerodynamic diameter 100 µm or less
CO .....	Carbon monoxide	PM <sub>10</sub> .....	PM with an aerodynamic diameter 10 µm or less
CO <sub>2</sub> .....	Carbon dioxide	PM <sub>2.5</sub> .....	PM with an aerodynamic diameter 2.5 µm or less
CO <sub>2</sub> e.....	Carbon dioxide equivalent	SO <sub>2</sub> .....	Sulfur dioxide
H <sub>2</sub> S .....	Hydrogen sulfide	SO <sub>x</sub> .....	Sulfur oxides
HAP.....	Hazardous air pollutant listed pursuant to Section 112 of the Federal Clean Air Act	TAP .....	Toxic air pollutant pursuant to Chapter 173-460 WAC
HCl.....	Hydrochloric acid	TGOC.....	Total Gaseous Organic Carbon
Hg.....	Mercury	TOC.....	Total Organic Carbon
N <sub>2</sub> O .....	Nitrous oxide	TSP.....	Total Suspended Particulate
NH <sub>3</sub> .....	Ammonia	VOC .....	Volatile organic compound
NO <sub>2</sub> .....	Nitrogen dioxide		
NO <sub>x</sub> .....	Nitrogen oxides		
O <sub>2</sub> .....	Oxygen		

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: Pratt Retail Specialties  
Applicant Address: 3201 SE Columbia Way, Vancouver, WA 98661

Facility Name: Pratt Retail Specialties  
Facility Address: 3201 SE Columbia Way, Building 42, Suite 100,  
Vancouver, WA 98661  
SWCAA Identification: 2758

Contact Person: Jay Rogers, President of Converted Paper (360-903-9217)  
Primary Process: Paper Bag Manufacturing  
SIC/NAICS Code: 2674: SIC Uncoated Paper and Multiwall Bags  
322220: NAICS Paper Bag and Coated and Treated  
Paper Manufacturing  
Facility Classification: Natural Minor

## 2. FACILITY DESCRIPTION

Pratt Retail Specialties proposes to operate a bag manufacturing facility,

## 3. CURRENT PERMITTING ACTION

This permitting action is in response to Air Discharge Permit (ADP) application number CL-3196 dated May 24, 2022. Pratt Retail Specialties submitted ADP application CL-3196 requesting the operation of a bag manufacturing facility. Operations conducted at the facility will include paper bag manufacturing lines, which will include cutting, gluing, printing, and folding various weight paper substrates.

This is the initial permitting action for this facility.

## 4. PROCESS DESCRIPTION

Rolls of corrugated paper are received at the facility by truck and stored/staged. When ready, a roll of paper is placed on the machine (either the Sunhope or the Holweg-Weber) and is fed continuously through the machine. The paper is printed with up to four colors by flexographic printing technology using water-based inks. The printed paper is then cut, trimmed, folded, and glued with cold-set water-based glues to form a finished bag. All operations from paper roll to finished bags take place within the same machine. Paper is cut and trimmed using serrated blades, similar to scissors, which the manufacturer states do not create dust. Finished bags are stacked, packaged, and staged in a warehouse for shipment.

## 5. EQUIPMENT/ACTIVITY IDENTIFICATION

- 5.a. Sunhope Bag Making Machines. Six (6) Sunhope bag making machines, model SBH330B, are used to make paper bags. They are roll-fed, square bottom paper bag machines that perform side seam gluing, tube forming, tube cutting, bottom creasing, bottom gluing, bottom forming, and final product feed out all in one run. The side seam glue is applied by a pressurized nozzle that applies a small bead of glue along the edge of the paper. The bottom glue is applied by rolling the glue onto the open bottom of the bag prior to mechanical folding. All six (6) 330B machines will include printing capabilities as well as flat handle applicators. The handles are applied to the bags after bag formation has occurred. The handles are applied by placing small spots of glue via pressurized nozzle on the bag. Printing on the paper bags will use a flexographic printing process.

Max Line Speed (bags/min): 200  
Line Speed (feet/min): 348  
Production (bags/hr): 12,000  
Max Paper Width (inch): 38.50  
Ventilation: Emissions are ventilated to the ambient air through  
unpowered wall and ceiling vents on the building.

- 5.b. Holweg Weber Bag Making Machine. One (1) Holweg Weber bag making machine, model 833A, is used to make paper bags. It is a roll-fed, square bottom paper bag machine that performs side seam gluing, tube forming, tube cutting, bottom creasing, bottom gluing, bottom forming, and final product feed out all in one run. The side seam glue is applied by a pressurized nozzle that applies a small bead of glue along the edge of the paper. The bottom glue is applied by rolling the glue onto the open bottom of the bag prior to mechanical folding. The 833A machine will include printing capabilities as well as flat handle applicators. The handles are applied to the bags after bag formation has occurred. The handles are applied by placing small spots of glue via pressurized nozzle on the bag. Printing on the paper bags will use a flexographic printing process.

Max Line Speed (bags/min): 400  
Line Speed (feet/min): 980  
Production (bags/hr): 24,000  
Max Paper Width (inch): 43.31  
Ventilation: Emissions are ventilated to the ambient air through  
unpowered wall and ceiling vents on the building.

- 5.c. Reel-to-Reel Flexo Printing Machine. The Reel-to-Reel Flexo printing machine is a one (1) color flexo printer which will print labels or designs onto the paper used to produce the bags depending on customer requests. Emissions are ventilated to the ambient air through unpowered wall and ceiling vents on the building.

- 5.d. Space Heating. Four make-up air units, Modine Manufacturing Co., Model No. PDP200AE0130, rated 200,000 Btu/hr each, totaling 0.80 MMBtu/hr to provide facility space heating.

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:

- One electric hot water heater.

5.f. Equipment/Activity Summary.

ID No.	Equipment/Activity	Control Equipment/Measure
1	Six (6) Sunhope Bag Making Machines, model SBH330B	Low VOC inks and adhesives
2	One (1) Holweg Weber Bag Making Machine, model 833A	Low VOC inks and adhesives
3	Reel-to-Reel Flexo Printing Machine	Low VOC inks
4	Four Space Heaters	Low sulfur fuel (natural gas)

## 6. EMISSIONS DETERMINATION

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 and Gluing Operations. VOC, TAP, and HAP emissions from printing and gluing operations are calculated using Safety Data Sheet (SDS) information for individual inks and glues, additional information from the manufacturers, estimated material consumption, and a material balance methodology. It was assumed that 100 percent of the volatile material from the ink, glues, and printing products are emitted to the ambient air. Wherever SDS information indicated a range of potential pollutant concentrations for a material, the average concentration was used to calculate annual emissions unless a more specific concentration was provided. Emissions of particulate matter were assumed to be zero because there are no spraying activities.

Letters from Specialty Adhesives & Coatings and Flint Group listed VOC, TAP, and HAP emission factors different from those in the SDS as well as included new TAP and HAP emissions not listed on the SDS.

Percentage by Weight of HAPs and TAPs for Each Product from Manufacturer's Data

TAP	Specialty Adhesives #3217	Flint Inks (variety)
Acetaldehyde (75-07-0)	0.0068 %	
Ethanolamine (141-43-5)		0.65 %

Formaldehyde (50-00-0)	0.0019%	
Methanol (67-56-1)	0.0118%	
Vinyl Acetate (108-05-1)	0.094%	

The facility expects to use a maximum of 809,196 lbs of inks and 3,741,852 lbs of glue a year.

<u>Pollutant</u>	<u>Emissions</u>
VOC	11.02 tpy
TAP	4.77 tpy
HAP	2.14 tpy

- 6.b. Space Heaters. Potential annual emissions from the combustion of natural gas in the Modine space heaters were calculated with the assumption that the equipment will operate at full rated capacity for 8,760 hours per year. Emissions of NO<sub>x</sub>, CO, VOC, SO<sub>2</sub>, PM/PM<sub>10</sub>/PM<sub>2.5</sub>, formaldehyde, and benzene were calculated using emission factors from AP-42 Section 1.4 (7/98). Greenhouse gas emissions were calculated using the procedures specified in 40 CFR 98. All PM is assumed to be PM<sub>10</sub>/PM<sub>2.5</sub>.

<b>Modine Space Heaters</b>						
Heat Rate =		0.800 MMBtu/hr (combined)				
Natural Gas Heat Value =		1,020 Btu/scf for AP-42 emission factors				
Natural Gas Heat Value =		1,026 Btu/scf for 40 CFR 98 GHG emis. fct.				
Fuel Consumption =		6.871 MMscf/yr				
Pollutant	Emission Factor lb/MMscf	Emission Factor lb/MMBtu	Emissions lb/hr	Emissions tpy	Emission Factor Source	
NO <sub>x</sub>	100	0.0980	0.078	0.34	AP-42 Sec. 1.4 (7/98)	
CO	84	0.0824	0.066	0.29	AP-42 Sec. 1.4 (7/98)	
VOC	5.5	0.0054	0.0043	0.019	AP-42 Sec. 1.4 (7/98)	
SO <sub>x</sub> as SO <sub>2</sub>	0.6	0.0006	4.71E-04	2.06E-03	AP-42 Sec. 1.4 (7/98)	
PM	7.6	0.0075	0.006	0.026	AP-42 Sec. 1.4 (7/98)	
PM <sub>10</sub>	7.6	0.0075	0.006	0.026	AP-42 Sec. 1.4 (7/98)	
PM <sub>2.5</sub>	7.6	0.0075	0.006	0.026	AP-42 Sec. 1.4 (7/98)	
Benzene	0.0021	2.06E-06	1.65E-06	7.21E-06	AP-42 Sec. 1.4 (7/98)	
Formaldehyde	0.075	7.35E-05	5.88E-05	2.58E-04	AP-42 Sec. 1.4 (7/98)	
Greenhouse Gases			CO <sub>2</sub> e lb/MMBtu	CO <sub>2</sub> e lb/MMscf	tpy, CO <sub>2</sub> e	Emis. Fact. Src
CO <sub>2</sub>	53.06	1	116.98	120,019	409.9	40 CFR 98
CH <sub>4</sub>	0.001	25	0.055	56.55	0.2	40 CFR 98
N <sub>2</sub> O	0.0001	298	0.066	67.41	0.2	40 CFR 98

6.c. Emissions Summary.

<b>Air Pollutant</b>	<b>Potential to Emit (tpy)</b>	<b>Project Impact (tpy)</b>
NO <sub>x</sub>	0.34	0.34
CO	0.29	0.29
VOC	11.04	11.04
SO <sub>2</sub>	0.0021	0.0021
PM	0.026	0.026
PM <sub>10</sub>	0.026	0.026
PM <sub>2.5</sub>	0.026	0.026

<b>Toxic/Hazardous Air Pollutant</b>	<b>Potential to Emit (lb/yr)</b>	<b>Project Impact (lb/yr)</b>	<b>Modeled?</b>
Acetaldehyde [75-07-0]	253.00	253.00	Yes
Benzene [71-43-1]	0.014	0.014	No
Ethanolamine [141-43-5]	5,260.00	5,260.00	Yes
Formaldehyde [50-00-0]	71.00	71.00	Yes
Methanol [67-56-1]	441.54	441.54	No
Vinyl Acetate [108-05-4]	3,517.34	3,517.34	No

**7. REGULATIONS AND EMISSION STANDARDS**

Regulations have been established for the control of emissions of air pollutants to the ambient air. Regulations applicable to the proposed facility 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 following regulations, codes, or requirements. These items establish maximum emissions limits that could be allowed and are not to be exceeded for new or existing facilities. More stringent limits are established in this Permit consistent with implementation of Best Available Control Technology (BACT):

- 7.a. Title 40 Code of Federal Regulations (40 CFR) 60.7 "Notification and Recordkeeping" requires that notification shall be submitted to SWCAA, the delegated authority, for date construction commenced, anticipated initial start-up, and initial start-up.
- 7.b. 40 CFR Part 60.8 "Performance Tests" requires that emission tests, if required, be conducted according to test methods approved in advance by the permitting authority and a copy of the results be submitted to the permitting authority. Per section 12, there are no emission monitoring or testing requirements established as part of this permitting action.
- 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 (RCW 70A.15) 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 ADP for installation and establishment of an air contaminant source.
- 7.e. WAC 173-460 "Controls for New Sources of Toxic Air Pollutants" (as in effect August 21, 1998) requires BACT for toxic air pollutants (T-BACT), identification and quantification of emissions of toxic air pollutants and demonstration of protection of human health and safety.
- 7.f. WAC 173-476 "Ambient Air Quality Standards" establishes ambient air quality standards for PM<sub>10</sub>, PM<sub>2.5</sub>, lead, SO<sub>2</sub>, NO<sub>x</sub>, ozone, and CO in the ambient air, which must not be exceeded. The facility emits PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, NO<sub>x</sub>, and CO; therefore, certain sections of this regulation apply.
- 7.g. Southwest Clean Air Agency (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, SO<sub>2</sub>, concealment and masking, and fugitive dust.
- 7.h. SWCAA 400-040(1) "Visible Emissions" requires that emissions of an air contaminant from any emissions unit must not exceed twenty percent opacity for more than three minutes in any one hour at the emission point, or within a reasonable distance of the emission point.
- 7.i. SWCAA 400-040(2) "Fallout" requires that emissions of PM from any source must not be deposited beyond the property under direct control of the owner(s) or operator(s) of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.
- 7.j. SWCAA 400-040(3) "Fugitive Emissions" requires that reasonable precautions be taken to prevent the fugitive release of air contaminants to the atmosphere.
- 7.k. SWCAA 400-040(4) "Odors" requires any source which generates odors that may unreasonably interfere with any other property owner's use and enjoyment of their property to use recognized good practice and procedures to reduce these odors to a reasonable minimum. This source must be managed properly to maintain compliance with this regulation.

- 7.l. SWCAA 400-040(6) "Sulfur Dioxide" requires that no person is allowed to emit a gas containing in excess of 1,000 ppm of SO<sub>2</sub>, corrected to 7% O<sub>2</sub> or 12% CO<sub>2</sub> as required by the applicable emission standard for combustion sources.
- 7.m. SWCAA 400-040(8) "Fugitive Dust Sources" requires that reasonable precautions be taken to prevent fugitive dust from becoming airborne and to minimize emissions.
- 7.n. SWCAA 400-060 "Emission Standards for General Process Units" requires that all new and existing general process units do not emit PM in excess of 0.23 g/Nm<sup>3</sup><sub>dry</sub> (0.1 gr/dscf) of exhaust gas.
- 7.o. SWCAA 400-109 "Air Discharge Permit Applications" requires that an ADP 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 ADP application to request such changes. An ADP 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.p. SWCAA 400-110 "New Source Review" requires that SWCAA issue an ADP in response to an ADP application prior to establishment of the new source, emission unit, or modification.
- 7.q. SWCAA 400-111 "Requirements for Sources in a Maintenance Plan Area" requires that no approval to construct or alter an air contaminant source will 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) BACT 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.

The facility is located in a maintenance plan area; therefore, this regulation applies to the facility.

- 7.r. 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 including flexographic printing systems that use more than 100 tpy of VOCs as a component of ink, for the thinning of

ink, cleaning of presses, press components and equipment. The permittee does not use more than 100 tpy of VOCs, therefore, the standards in this section do not apply to the permittee.

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

The proposed equipment and control systems incorporate BACT for the types and amounts of air contaminants emitted by the processes, as described below:

### *BACT Determination(s)*

- 8.a. BACT Determination – Bag Making Operations. In previous BACT determinations for other printing operations in SWCAA's jurisdiction, inks containing less than 1 lb/gal VOC met the requirements of BACT for inks in printing operations. The Permittee submitted additional information from BACT Guideline 4.7.15 from the San Joaquin Valley District (9/22/2006) that lists BACT as "use of coating with a VOC content (less water and exempt compounds) as indicated, or lower: 0.3 lb/gal." The density of the proposed ink is approximately 9.21 lb/gal with a VOC content of 1.06%, equal to 0.098 lb/gal, less than the San Joaquin BACT determination. Based on this review, the proposed use of low VOC ink has been determined to meet the requirements of BACT for the types and quantities of emissions from printing operations.

The South Coast Air Quality District's Rule 1168 was adopted in April 1989 to reduce VOC emissions from adhesive and sealant applications. The rule has been amended 14 times; the last amendment was in October 2017. At this time, the VOC limit for "contact adhesive" is 80 g/L or 0.67 lb/gal. The density of the proposed glue is approximately 9.1 lb/gal with a VOC content of 0.65%, equal to 0.032 lb/gal, less than the South Coast Air Quality District, Rule 1168. Based on this review, the proposed use of low VOC glue has been determined to meet the requirements of BACT for the types and quantities of emissions from gluing operations.

- 8.b. BACT Determination – Space Heating. The proposed use of low-sulfur fuel (natural gas) has been determined to meet the requirements of BACT for the types and quantities of emissions from space heating.
- 8.c. Prevention of Significant Deterioration (PSD) Applicability Determination. 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.d. 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 (Title V) permit.

## 9. AMBIENT IMPACT ANALYSIS

- 9.a. Criteria Air Pollutant Review. Emissions of NO<sub>x</sub>, CO, PM, VOC (as a precursor to O<sub>3</sub>), and SO<sub>2</sub> are emitted at levels where no adverse ambient air quality impact is anticipated.
- 9.b. TAP Small Quantity Review. The TAP emissions associated with this facility are quantified in Section 6 of this TSD. Based on the emission calculations in accordance with Section 6 for the emission units and activities described in ADP application CL-3196, none of the estimated emission rates exceed the Small Quantity Emission Rate (SQER) specified in WAC 173-460 (as in effect August 21, 1998), with the exception of acetaldehyde, ethanolamine, and formaldehyde.

Emissions rates of acetaldehyde, ethanolamine, and formaldehyde were modeled using AERMOD (version 21112). The results of the model indicate that the project will not cause an incremental increase in ambient concentrations greater than the applicable acceptable source impact level (ASIL) identified in WAC 173-460.

TAP	SQER as per WAC 173- 460 (lb/yr)	ASIL as per WAC 173-460 (µg/m <sup>3</sup> )	Averaging Period	PTE (lb/yr)	Emission Rate (lb/hr)	Modeled Concentration (µg/m <sup>3</sup> )
Acetaldehyde (75-07-0)	50	0.45	Annual	253	0.29	0.263
Ethanolamine (141-43-5)	1,750	25	24-hr	5,260	0.60	22.1
Formaldehyde (50-00-0)	20	0.077	Annual	71	0.0081	0.074

The emission concentrations were also compared to WAC 173-460 (as in effect 2019) emissions limits, and they did not exceed those limits.

### Conclusions

- 9.c. Construction of the bag making facility, as proposed in ADP application CL-3196, will not cause the ambient air quality requirements of 40 CFR 50 "National Primary and Secondary Ambient Air Quality Standards" to be violated.
- 9.d. Construction of the bag making facility, as proposed in ADP application CL-3196, 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. Operation of the bag making facility as proposed in ADP application CL-3196, will not violate 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 22-3523 in response to ADP application CL-3196. ADP 22-3523 contains approval requirements deemed necessary to assure compliance with applicable regulations and emission standards as discussed below.

This is the initial permitting action for the facility.

10.a. General Basis. Permit requirements for equipment affected by this permitting action incorporate the operating schemes proposed by the applicant in ADP application CL-3196. Unless otherwise requested by the applicant, emission limits for approved equipment are based on the potential emission calculations in Section 6 of this Technical Support Document. BACT is implemented as proposed for each emission unit.

10.b. Emission Limits. Facility-wide emission limits are based on the sum of the emission limits for approved equipment calculated in Section 6 of this Technical Support Document.

Visible emissions from the bag making operations have been limited to zero percent opacity, consistent with proper operation.

10.c. Operational Limits and Requirements. TAPs are limited via a blanket limitation that does not allow emissions of individual toxic air pollutants to exceed their respective small quantity emission rates established in WAC 173-460 other than those that have been modeled. Such a blanket limitation is more appropriate for this facility because material formulations have changed and are expected to continue changing in the future.

Because this type of operation has the potential to produce nuisance odors, the requirement to minimize odor impacts on neighboring property owners from SWCAA 400-040 was incorporated directly into the ADP. The requirement to store materials containing volatile organic compounds in enclosed containers to minimize evaporation was included as implementation of good air pollution control practice (presumptive BACT).

10.d. Monitoring and Recordkeeping. Sufficient monitoring and recordkeeping requirements were established to document compliance with the emission limits and provide for general requirements (e.g. upset reporting, annual emission inventory submission).

10.e. Emission Monitoring and Testing Requirements. See Section 12.

10.f. Reporting. SWCAA is required to be notified before a new material is used that will result in emissions of a HAP or TAP. This requirement allows SWCAA and the permittee to assess whether a process or material change will have an adverse effect on air quality or require New Source Review without formal submittal of an ADP application. Significant changes must still undergo New Source Review. The ADP requires reporting of the annual air emissions inventory and reporting of the data

necessary to develop the inventory. Excess emissions must be reported immediately in order to qualify for relief from monetary penalty in accordance with SWCAA 400-107.

## **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 must 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 will include appropriate emission limitations, operating parameters, or other criteria to regulate performance of the source during start-up or shutdown.

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 approval conditions.
- 11.c. Pollution Prevention Measures. SWCAA conducted a review of possible pollution prevention measures for the facility. The facility already uses inks and glues containing little or no VOCs to prevent VOC and TAP emissions. No pollution prevention measures were identified by either the permittee or SWCAA separate or in addition to those measures required under BACT considerations. Therefore, none were included in the approval conditions.

## **12. EMISSION MONITORING AND TESTING**

There are no emission monitoring or testing requirements established as part of this permitting action.

## **13. FACILITY HISTORY**

- 13.a. General History. The facility has not been permitted in the past.
- 13.b. Previous Permitting Actions. There are no previously issued ADPs for this facility.

**14. PUBLIC INVOLVEMENT OPPORTUNITY**

- 14.a. Public Notice for ADP Application CL-3196. Public notice for ADP application CL-3196 was published on the SWCAA website for a minimum of fifteen (15) days, beginning on May 25, 2022.
- 14.b. Public/Applicant Comment for ADP Application CL-3196. SWCAA did not receive specific comments, a comment period request, or any other inquiry from the public or the applicant regarding ADP application CL-3196. Therefore, no public comment period was provided for this permitting action.
- 14.c. State Environmental Policy Act. After review of the SEPA Checklist for this project, SWCAA has determined that the project does not have a probable significant impact on the environment and has issued Determination of Non-Significance 22-015. An Environmental Impact Statement is not required under RCW 43.21C.030(2)(c).