Regulatory Order – Synthetic Minor Worksheet

PUGET SOUND
Clean Air Agency

Source: ASKO Processing Inc	**Reg Order Number:** 12318
Installation Address: 434 N 35th St | Seattle, WA 98103	**Registration Number:** 16009
Contact Name: Chuck Babb	**Contact Email:** chuckb@askogroup.com
Applied Date: 01/26/2023	**Contact Phone:**
Engineer: Maggie Corbin	**Inspector:** Aïssata Cissé

A. DESCRIPTION

For the General Order:

Facility-wide synthetic minor emission limit of 1-Bromopropane emissions.

Additional Information:

EPA designated 1-Bromopropane (n-Propyl Bromide, nPB), CAS Number 106-94-5) as a hazardous air pollutant (HAP) on February 4, 2022. Prior to this time, ASKO Processing was considered a natural minor source for purposes of the Title V program. However, ASKO Processing uses 1-bromopropane in their vapor degreaser which has operational limits in Order of Approval No. 9941 issued February 17, 2009. The permit limits emissions to 0.09 lb/ft2-hr of operation. Potential emissions of 1-bromopropane were estimated to be approximately 10 tons per year (tpy), but at the time, 1-bromopropane was not a HAP. It is a VOC but potential emissions were well below the major source threshold for VOCs of 100 tpy.

This review is for a regulatory order under PSCAA Reg I 3.03(f):

"When an applicant requests a federally enforceable regulatory order to limit the potential to emit any air contaminant or contaminants pursuant to WAC 173-400-091, or requests a modification to such an order, the Control Officer or a duly authorized representative may issue such order consistent with the requirements of WAC 173-400-091 and 173-400-171 and Section 3.03(e) above. Regulatory orders issued pursuant to this section are effective the day the Control Officer or representative approves the order and may be appealed to the Pollution Control Hearings Board pursuant to Section 3.17 of Regulation I and RCW 43.21B.310."

ASKO Processing submitted this synthetic minor permit application and processing fee under Reg I 3.03(e).

Facility

ASKO Processing is a metal finishing shop located in Seattle. It provides a full-range of metal finishing supporting aerospace, electronics and industrial customers.

Proposed Emission Limitations

The applicant is requesting a facility-wide emission limits:

- 9.9 tons of 1-bromopropane during any consecutive 12 month period.

The limits are discussed in Section G.

Permit History

In addition to this facility-wide limit of this Order, the facility has the following existing Notice of Construction Order of Approvals which will not be affected by this permitting action:

NOC	Issue Date	Description
11921	2/5/2020	One zinc nickel processing line with air emissions from zinc nickel alloy plating tank and nickel strike tank controlled by packed bed scrubber rated at 5,350 cfm
11617	7/25/2018	Chromic acid anodizing tank with emissions controlled by composite mesh pad filter rated at 6300 cfm
10911	4/27/2015	Titanium etch tank containing nitric acid and hydrofluoric acid. Exhaust fan also used to vent alkaline cleaner tank
10510	8/27/2012	Tank for Type VIII passivation of stainless steel aerospace parts using nitric acid.
10064	7/22/2009	Replacement of existing control equipment with mist eliminators for 3 hard chrome plating tanks.
9941	2/17/2009	Vapor Degreaser using 1-bromopropane
9593	4/4/2007	Sludge Dryer controlled by a Venturi scrubber
5170	9/30/1993	Evaporator (no longer in use, removed)
3826	4/8/1991	Scrubber on Titanium-Cadmium plating tank
12181	Determined no NOC permit needed in accordance with 6.03(b)(10)	Poly ET-III-W evaporator with an integral chevron mist eliminator/polyethylene mesh pad used to concentrate chrome plating solution. Closed loop system – no exhaust

ASKO had a synthetic minor permit that limited trichloroethylene usage issued in 1995, but that was cancelled when ASKO switched to 1-bromopropane in their vapor degreaser.

B. DATABASE INFORMATION

No new equipment will be added under this Order.

40 CFR Part 63, Subpart N applies to this facility.
40 CFR Part 63 Subpart WWWWWW applies to this facility, but the Agency has not requested delegation for implementation and enforcement of this NESHAP.

C. REGULATORY ORDER FEES AND ANNUAL REGISTRATION FEES

Regulatory Order Fees:

Fees have been assessed in accordance with PSCAA Regulation I, 3.03(e) for Regulatory Orders: per Regulation I 3.03(e): "When a regulatory order is requested by an applicant, the Agency shall assess a fee of $4,000 to cover the costs of processing and issuing a regulatory order under this section. The Agency shall also assess a fee equal to the cost of providing public notice in accordance with Section 3.03(b) of this regulation. These fees shall be due and payable within 30 days of the date of the invoice and shall be deemed delinquent if not fully paid within 90 days of the invoice."

Fee Description	Cost	Amount Received (Date)
Reg I 3.03(e)	$ 4,000	
Public Notice Fees*	TBD	
Fee received		$ 4000 (1/27/23)
Total		

*Publication fees to be invoiced following public comment period

Registration Fees:
Registration fees are assessed to the facility on an annual basis. Fees are assessed in accordance with Regulation I, Section 5.07. Current fees for 2023 are shown below:

PUGET SOUND
Clean Air Agency

Invoice for Year 2023 Registration Fees

Bill To:
Asko Processing Inc **434 N 35th St** **Seattle, WA 98103** **Attention: Accounts Payable**

Invoice Date:	Invoice #:
November 19, 2022	20230352
Due Date:	**Terms:**
January 03, 2023	Net 45 Days
Facility ID (Registration #):	
16009	

Site Address: ***Asko Processing Inc***
434 N 35th St, Seattle, WA 98103

The annual registration fee is required by Washington State law and Puget Sound Clean Air Agency's Regulation I.

Facility Fees and Applicable Regulations		Charges
Base Fee for Registered Sources. Reg I, 5.07(c)	**$**	1,150.00
Reg I, 5.03(a)(1) - Facilities subject to federal emission standards (Title 40 CFR) Reg I, 5.03(a)(5) - Facilities with gas or odor control equipment (>= 200 cfm) Reg I, 5.03(a)(6) - Facilities with particulate control equipment (>= 2,000 cfm)		
Additional Fees:		
Reg I, 5.07(c)(1) - 40 CFR 63 Subpart N	$	2,100.00
	$	**3,250.00**
Fee Totals		
TOTAL REGISTRATION FEE	**$**	**3,250.00**
The Total Registration Fee is due by January 03, 2023. If unpaid after January 03, 2023, the facility may be subject to enforcement action with civil penalties (Reg I, 5.07(b)).		

This Order will adjust the applicable portions of Reg I 5.03(a)(2) will now apply. Additional fees in Reg I 5.07(c)(2) will apply since the source will be subject to a federally enforceable limit. In addition, fees in Reg I 5.07(c)(3) will apply to emissions reported under Section 5.05(b).

D. STATE ENVIRONMENTAL POLICY ACT (SEPA) REVIEW

State Environmental Policy Act (SEPA) review was not conducted for the issuance of this Regulatory Order. In this case, the Regulatory Order does not include the establishment of any new source of emissions.

Regulation I, Article 2. The SEPA review is undertaken to identify and help government decision-makers, applicants, and the public to understand how a project will affect the environment. A review under SEPA is required for projects that are not categorically exempt in WAC 197-11-800 through WAC 197-11-890. A new source review action which requires a NOC application submittal to the Agency is not categorically exempt. A SEPA determination was made for actions that triggered a Notice of Construction permit.

E. TRIBAL CONSULTATION

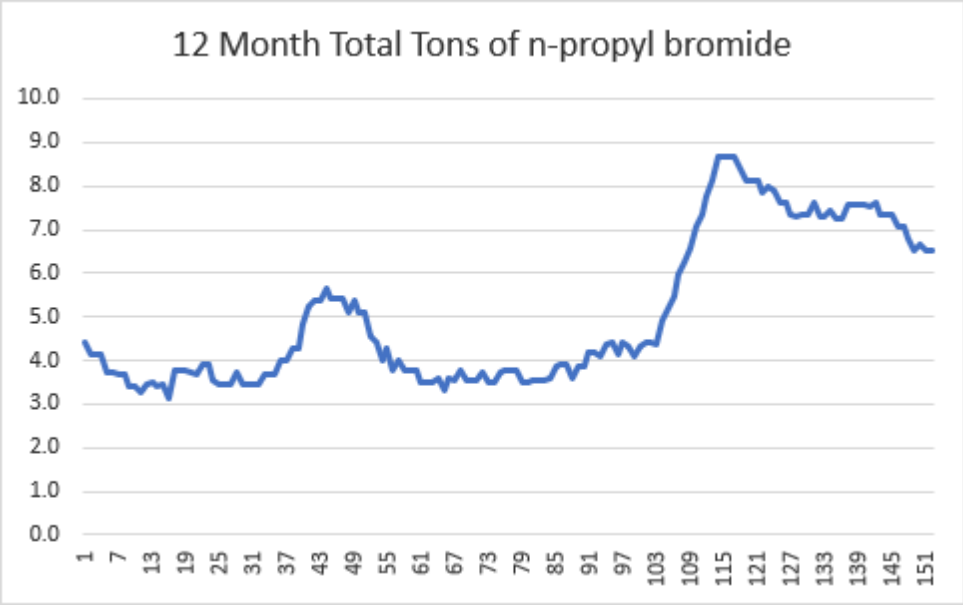
On November 21, 2019, the Agency's Interim Tribal Consultation Policy was adopted by the Board. Criteria requiring tribal consultation are listed in Section II.A of the policy and include establishment of a new air operating permit source, establishment of a new emission reporting source, modification of an existing emission reporting source to increase production capacity, or establishment or modification of certain equipment or activities. In addition, if the Agency receives an NOC application that does not meet the criteria in Section II.A but may represent similar types and quantities of emissions, the Agency has the discretion to provide additional consultation opportunities.

This project does not meet any of the criteria for consultation listed in Section II.A of the Agency's Interim Tribal Consultation Policy. This order does not authorize an increase in emissions or new equipment. The intent of this Order is to establish a federally enforceable limit on potential emissions.

F. EMISSION ESTIMATES

Facility-wide Emissions

Actual emissions of 1-bromopropane are tracked and recorded by the facility:



Based on the review of NOC 9941, potential emissions of 1-bromopropane were calculated to be 10 tons/year.

Based on current operations, the solvent used in the degreaser is the only source of 1-bromopropane emissions. However, the limit is not specific to degreaser operations but would require ASKO to track and record all emissions of 1-bromopropane if new products were introduced that contained 1-bromopropane. In addition, there are other processes at the facility that may emit HAPs and VOC. The

applicant submitted a review of potential sources of HAP on February 2, 2023 and this information is summarized below:

Hexavalent chromium: Chromium compounds are HAPs and PM. ASKO Processing has hard chrome plating and anodizing operations that are limited to 60 million amp-hrs/year and controlled by a composite mesh-pad systems. Potential emissions are less than 10 lb/yr.

Other Inorganic HAP/PM: HAP emissions related to other plating operations include cadmium compounds, cobalt compounds (single use is as a lightly used additive for gold plating), cyanide compounds, chromium compounds, lead compounds, manganese compounds (non-electrolytic process, and nickel compounds. Because of the nature of these operations, the overall emissions are low (<1 tons/year). This is supported by the Metal Finishing Facility Risk Screening Tool (MFFRST): Technical Documentation and User's Guide (2001).

ASKO also operate a sludge dryer permitted under NOC 9593. Emissions were evaluated based on test results submitted for another facility. Emissions are controlled by a mesh pad demister. Potential emissions of PM were estimated to be 28 lb/yr, mostly heavy metals including inorganic HAP.

Acids: ASKO also uses nitric acid and hydrochloric acids. I reviewed the calculations in NOC 10911 and potential emissions based on diffusion/dragout calculations were 93 lb/year for nitric acid and 4.0 lb/yr for hydrofluoric acid. Hydrochloric acids can be assumed to be in a similar range.

Combustion Sources: The facility uses small amounts of natural gas in their sludge dryer and to heat the building. Average daily therms are estimated to be 22 therms/year (2200 SCF). Emissions from combustion from these small combustion sources is insignificant.

Abrasive Blasting: The facility has 4 abrasive blast units with emissions controlled by dust collectors. All of these units are very small with dust collectors ranging from 200 to 3400 cfm (total 7,900 cfm).

The applicant provide estimates of abrasive purchased in 2021 and 2022 which averaged 14,300 lb for aluminum oxide and 1800 for glass bead. Using EPA's AP-42 emission factor of 0.69 lb/1000 lb of abrasive, actual emissions are 11 lb/year. Prorating up to 24/7 operations, potential emissions would still be less than 50 lb/yr. Even assuming the dust collectors were operated 24 hours day/7 days per week at full capacity with 0.05 gr/dscf regulatory limit, emissions would be 15 tons/year which is well below major source thresholds but also significantly higher that would ever be anticipated from these operations.

Other VOC Emissions: This facility does not do spray coating. They do use some VOC/organic HAP containing materials. This includes chemical maskants in the plating and anodizing operations, but only small quantities of maskants are used (~20 gallons in 2022). These products do contain toluene but the emissions from these small quantities are very low. The facility operates a dip tank which contain PCE which is a HAP but usage is low with the last purchases in 2021 (55 gallon drum on AC-818-C-Perc) and 10 gallons of thinner which also contains PCE. Finally, the facility does use MEK and acetone in their operations. MEK is no longer a HAP but a VOC. The facility estimated use of MEK and acetone to be

2,425 pounds in 2022. Based on the usage of organic solvents, usage would be well below 1 tons/year for a single HAP (considering MEK is not a HAP).

Summary: Based on a review of all the emissions activities, potential emissions of total HAP are below 25 tons/year and potential emissions of criteria pollutants are below 100 tons/year. The only single HAP with potential emissions above 10 tons/year is 1-bromopropane. Therefore, the synthetic minor limits only 1-bromopropane emissions.

The facility is required to monitor all emissions sources and report to the Agency if emissions are above the reporting thresholds in Regulation I, Section 5.05(b):

> The owner or operator of a source requiring registration under Section 5.03 of this regulation shall submit a report by June 30th of each year, listing the emissions of those air contaminants emitted during the previous calendar year that equaled or exceeded:
>
> (1) 2.50 tons of any single hazardous air pollutant (HAP);
>
> (2) 6.25 tons of total hazardous air pollutants (HAP);
>
> (3) 25.0 tons of carbon monoxide (CO), nitrogen oxides (NO_x), particulate matter ($PM_{2.5}$ or PM_{10}), sulfur oxides (SO_x), or volatile organic compounds (VOC); or
>
> (4) 0.5 tons of lead.

The facility has not reported emissions since 2007. For 2022, ASKO will be required to report emissions of 1-bromopropane since it is now a HAP. Reporting of emissions allows the Agency to monitor actual emissions and if emissions of other HAP or criteria pollutants exceed 25% of major source thresholds, the potential emissions would be reevaluated to determine if above major thresholds. In addition, new emission units would be required to obtain a Notice of Construction permit in accordance with Regulation I, Article 6 and facility-wide potential emissions would be reevaluated at that time.

G. LIMIT EVALUATION

The federally enforceable limits for this regulatory order must meet the requirements of WAC 173-400-091. WAC 173-400-091(3) requires that any order issued include monitoring, recordkeeping and reporting requirements sufficient to ensure that the source or stationary source complies with the conditions of the order.

EPA has provided guidance for federally enforceable permit limits in several documents which were utilized in the development of the limits, compliance demonstration, monitoring recordkeeping and reporting requirements of this Order (PDF copies are located in the "NOC Worksheet References" sub-folder of this project folder).

- Options for Limiting the Potential to Emit (PTE) of a Stationary Source Under Section 112 and Title V of the Clean Air Act (Act), 1/25/1995

- Guidance on Enforceability Requirements for Limiting Potential to Emit through SIP and §112 Rules and General Permits, 1/25/1995
- Approaches to Creating Federally-Enforceable Emissions Limits, 11/3/1993
- EPA comments on Lockwood Regional Landfill March 29, 2011

Limits
The applicant requested the limit on 1-bromopropane be set at 9.9 tons/year which is 99% of the major source threshold of 10 tons for any single HAP. Per EPA guidance (example from EPA comments on Lockwood Regional Landfill March 29, 2011 which can be found in the project folder file "March 29 2011 Lockwood Landfill" PDF) "EPA encourages a 5-10% buffer between the permitted emission limits and the federal threshold". A 5% buffer (9.5 ton/12 month rolling period) will be used for this synthetic minor emission limit because compliance is to be determined on a monthly basis (12-month rolling) calculated using the material balance method to calculate emissions. While this monitoring structure does not determine compliance as frequently as other monitoring systems (e.g. continuous emission monitoring system), a 5% buffer is determined to be sufficient to ensure that the facility remains below Title V permitting thresholds.

Recordkeeping and Reporting
The facility will track solvent additions and deletions to the vapor degreaser and the 1-bromopropane contents of the solvent based on manufacturer's supplied data such as a safety data sheet, product data sheet or technical data sheet. Emissions of 1-bromopropane from solvent removed from the degreaser in waste may also be subtracted from usage if the solvent composition has been determined through waste analysis (sampling of each waste drum disposed of off-site).

Currently, the degreaser solvent is the only emission source of 1-bromopropane. However, Condition 2(c) does require ASKO to include emissions from other sources and include those in the calculations. This will account for changes in the operation that may incorporate additional sources of 1-bromopropane.

Within 30 days of the end of each month, the owner or operator shall calculate the facility-wide emissions 1-bromopropane for the previous month and the previous consecutive 12 month period.

H. OPERATING PERMIT OR PSD

The Title V Air Operating Permit (AOP) program applicability for the entire source has been reviewed.

The facility is not a Title V air operating permit source because post project PTE remains below Title V applicability thresholds and criteria due to federally enforceable limits of this Order 12318. The source is considered a "**synthetic minor**".

I. APPLICABLE RULES & REGULATIONS

Puget Sound Clean Air Agency Regulations

SECTION 3.03 GENERAL REGULATORY ORDERS

(f) When an applicant requests a federally enforceable regulatory order to limit the potential to emit any air contaminant or contaminants pursuant to WAC 173-400-091, or requests a modification to such an order, the Control Officer or a duly authorized representative may issue such order consistent with the requirements of WAC 173-400-091 and 173-400-171 and Section 3.03(e) above. Regulatory orders issued pursuant to this section are effective the day the Control Officer or representative approves the order and may be appealed to the Pollution Control Hearings Board pursuant to Section 3.17 of Regulation I and RCW 43.21B.310.

Washington State Administrative Code

WAC 173:400-091: Voluntary limits on emissions.

(1) Upon request by the owner or operator of a new or existing source or stationary source, the permitting authority with jurisdiction over the source shall issue a regulatory order that limits the potential to emit any air contaminant or contaminants to a level agreed to by the owner or operator and the permitting authority with jurisdiction.

(2) A condition contained in an order issued under this section shall be less than the source's or stationary source's otherwise allowable annual emissions of a particular contaminant under all applicable requirements of the chapter **70.94** RCW and the FCAA, including any standard or other requirement provided for in the Washington state implementation plan. The term "condition" refers to limits on production or other limitations, in addition to emission limitations.

(3) Any order issued under this section shall include monitoring, recordkeeping and reporting requirements sufficient to ensure that the source or stationary source complies with any condition established under this section. Monitoring requirements shall use terms, test methods, units, averaging periods, and other statistical conventions consistent with the requirements of WAC **173-400-105**.

(4) Any order issued under this section must comply with WAC **173-400-171**.

(5) The terms and conditions of a regulatory order issued under this section are enforceable. Any proposed deviation from a condition contained in an order issued under this section shall require revision or revocation of the order.

J. PUBLIC NOTICE

This project meets the criteria for mandatory public notice under WAC 173-400-171(3)(k) for establishing a voluntary limit on emissions. This is due to requesting a voluntary limit on emissions for VOCs and HAP. A 30-day public comment period shall be held from March 24, 2023 through April 23, 2023. Notices that the draft materials were open to comment were published in the Seattle Times and Daily Journal of Commerce on March 24, 2023. The Agency posted the application and the draft worksheet on the Agency's website during the comment period.

K. RECOMMENDED APPROVAL CONDITIONS

1. The owner or operator shall limit facility-wide emissions of 1-bromopropane (CAS number 106-94-5) to 9.5 tons during any consecutive 12-month period.

Compliance Demonstration:

2. In order to demonstrate compliance with the emission limit in Condition 1, the owner or operator shall:

   a. Maintain a log of solvent additions and deletions from the vapor degreaser;

   b. Within 30 days of the month, calculate and record emissions of 1-bromopropane during the previous 1 month period and the previous consecutive 12-month period. Emissions must be based on solvent additions and deletions to the vapor degreaser and the 1-bromopropane contents of the solvent based on manufacturer's supplied data such as a safety data sheet, product data sheet or technical data sheet. Emissions of 1-bromopropane from solvent removed from the degreaser in waste may also be subtracted from usage if the solvent composition has been determined through waste analysis; and

   c. Emissions from 1-bromopropane from other activities at the facility (if applicable) shall be included with emissions calculated for the previous 1 month period and the previous consecutive 12-month period in Condition 2(b). The material balance method shall be used to calculate emissions from other activities at the facility.

General Recordkeeping and Reporting

3. The owner or operator shall provide a notification to the Puget Sound Clean Air Agency within 60 days after the end of any consecutive 12-month period if, during that period, facility-wide emissions of 1-bromopropane exceeded 9.5 tons. The permittee shall submit the notification in electronic format as an attachment to an e-mail message to facilitysubmittal@pscleanair.gov or any other e-mail identified by the Agency. The report shall include a summary of the total 12-month emissions, including the supporting emission calculations for the reported emissions.

4. All records maintained by this Order of Approval must be maintained for five years (in hard copy or electronic format) and must be made available to Puget Sound Clean Air Agency personnel upon request.

5. This Order shall expire upon Puget Sound Clean Air Agency's determination that the owner or operator has submitted a complete application for an operating permit under Article 7 of Puget Sound Clean Air Agency Regulation I.

L. CORRESPONDENCE AND SUPPORTING DOCUMENTS

Additional correspondence submitted by e-mail regarding emissions included in electronic NOC folder and Agency EMS system.

M. REVIEWS

Reviews	Name	Date
Engineer:	Maggie Corbin	2/21/2023
Inspector:	Chris Kitchen	2/21/2023
Second Review:	John Dawson	2/21/2023
Applicant Name:	Chuck Babb	3/7/2023

Chuck Babb followed up with concerns about testing wastes for nPB. On 3/14/23, he communicated that he was able to find a lab in Portland and will use EPA 8015 to test the composition of waste drums if they are subtracting off waste sent off-site in their emissions calculations.

RE: Analyses of Solvent: Draft Regulatory Order 12318

CB Chuck Babb <chuckb@askogroup.com>
To Maggie Corbin

Reply | Reply All | Forward

Tue 3/14/2023 8:51 AM

You replied to this message on 3/14/2023 10:11 AM.

Maggie,

I have found a lab in the Portland area, Specialty Analytica, that can do this analyses.

Washington Ecology has them certified. There is no individual certification for the nPB as I understand.

They will use the method EPA 8015.

Please call if you have any questions.

Thanks,

Chuck