

Regulatory Order – Synthetic Minor Worksheet



Source: Art Brass Aerospace Finishing	NOC Number: 12472
Installation Address: 5516 3rd Ave S Seattle, WA 98108	Registration Number: 20086
Contact Name: Danny Milette	Contact Email: danny@artbrassplating.com
Applied Date: 07/05/2024	Contact Phone: (206) 767-4443
Engineer: Maggie Corbin	Inspector: Gerard Van der Jagt

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, Art Brass Aerospace Finishing (Art Brass) was considered a natural minor source for purposes of the Title V program. However, Art Brass uses 1-bromopropane in their vapor degreaser which has an emission control system consisting of both equipment and work practices as required in Order of Approval No. 9137 issued February 18, 2005. During the review of the application for use of 1-bromopropane in the degreaser, potential emissions of 1-bromopropane were estimated to be approximately 18 tons per year (tpy), but at the time, 1-bromopropane was not a HAP. 1-Bromopropane is a volatile organic compound (VOC) as defined in 40 CFR 51.100(s) but potential emissions of VOCs were well below the major source threshold 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.”

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

Facility

Art Brass is an aerospace finishing company. It provides a full range of metal finishing supporting aerospace customers.

Proposed Emission Limitations

The applicant is requesting a facility-wide emission limit of hazardous air pollutant emissions below major source thresholds. 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 Orders of Approval which will not be affected by this permitting action:

NC	Approval Date	Project Description
9137	2/18/2005	Switch from TCE to n-propyl bromide in existing vapor degreaser.
10684	3/10/2014	One spray booth (AFC Finishing Model E10F108) for the spray application of solid film lubricant. The rated exhaust flow rate of the booth is 8,000 cubic feet per minute (cfm) and is controlled by a dry filtration system.
10971	9/9/2015	One spray booth with exhaust rate of 6,500 cfm for the finishing of aerospace parts/components. The booth is equipped with Dralle CPA (1st stage), ME/PT (2nd stage), and Dralle XFP 6000 (3rd stage) filtration system.
11662	10/4/2018	One Dry Filter Paint booth with an enclosed volume of approximately 800 cubic feet and a rated exhaust rate of 9,815 cubic feet per minute and used for spray coating aerospace parts.

Other equipment installed and operating at the facility as registered equipment include nickel plating, electroless nickel plating, chromium decorative plating, hydrochloric acid pickling and activation, nickel strike tanks, hydrochloric acid desmut, chromium conversion coating, passivation tanks, cadmium plating, copper cyanide, a curing oven, and a powder coating booth.

Art Brass had a synthetic minor permit that limited trichloroethylene usage issued in 1995, but that was cancelled when Art Brass 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 (decorative chromium plating), but there are no new federal standards that apply.

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		\$ 3,000 (7/5/2024)
Fee Due		\$1,000 (8/14/2024)
Total		

*Publication fees to be invoiced following public comment period

Invoice sent 7/9/2024

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 2024 are shown below:

Invoice for Year 2024 Registration Fees

Bill To:
Art Brass Aerospace Finishing 313 South Findlay St. Seattle, WA 98108
Attention: Accounts Payable

Invoice Date:	Invoice #:
November 18, 2023	20240455
Due Date:	Terms:
January 02, 2024	Net 45 Days
Facility ID (Registration #):	
20086	

Site Address: Art Brass Aerospace Finishing
5516 3rd Ave S, Seattle, WA 98108

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)	\$ 1,350.00
Reg I, 5.03(a)(1) - Facilities subject to federal emission standards (Title 40 CFR)	
Reg I, 5.03(a)(4)(M) - Facilities with aerospace coating operations	
Reg I, 5.03(a)(6) - Facilities with particulate control equipment (\geq 2,000 cfm)	
Additional Fees:	
Reg I, 5.07(c)(1) - 40 CFR 63 Subpart N	\$ 2,450.00
	\$ 3,800.00
Fee Totals	
TOTAL REGISTRATION FEE	\$ 3,800.00
<i>The Total Registration Fee is due by January 02, 2024. If unpaid after January 02, 2024, the facility may be subject to enforcement action with civil penalties (Reg I, 5.07(b)).</i>	

Additional fees in Reg I 5.07(c)(2) will apply since the source will be subject to a federally enforceable limit in Regulation I 5.03(a)(2) (updated to emission capped in database). 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. Actual emissions of 1-bromopropane were reported as 8.3 tons in 2022 and 9.2 tons in 2023.

Based on the review of NOC 9137, potential emissions of 1-bromopropane were calculated to be 18 tons/year. However, that was based on pro-rating production activities from 1,560 hr/year to 8760 hours/year which may not adequately reflect potential emissions. Using EPA's AP-42 emission factor of 0.15 lb/hr/ft² for uncontrolled organic emissions and a surface area of 16 ft², PTE was estimated at 10.5 tpy.

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 Art Brass 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 with their application and this information is summarized below:

Plating Shop: For plating and other activities in the plating shop, the applicant used the EPA's Metal Finishing Facility Risk Screening Tool (MFFRST) which the Agency uses in permitting to estimate potential emissions. HAP emissions of chromium, nickel compounds, hydrochloric acid, and cyanide were evaluated, and total HAP emissions (potential worst-case) were estimated to be less than 500 pounds/year. The single highest HAP was hydrochloric acid which was less than 300 pounds/year. A more refined evaluation of emissions would significantly lower these emission estimates.

Other VOC Emissions: Spray coating at this facility was evaluated under several NOCs but is the three booths are currently operating under Order of Approval Nos. 10971, 10684 and 11662. The applicant used a similar method used in permitting of pro-rating actual emissions to estimate potential emissions

of VOCs and HAPs associated with operations in the three booths. HAPs evaluated included toluene and propylene oxide. Potential VOC emissions from spray coating were estimated to be 13 tons per year and total HAP emissions were estimated to be 3 tons per year.

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 PM₁₀), sulfur oxides (SO_x), or volatile organic compounds (VOC); or
- (4) 0.5 tons of lead.

Art Brass 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 hazardous air pollutant emissions below major source levels. 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 Art Brass 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 12472. 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 August 26, 2024 through September 25, 2025. Notices that the draft materials were open to comment were published in the Seattle Times and Daily Journal of Commerce on August 26, 2024. 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 from the specific waste drum or based on a representative sample of waste. A representative sample may be used if the amount subtracted is based on the lowest concentration of 1-bromopropane measured in three waste samples collected from different waste drums. If a representative sample is used, an updated waste analysis on a waste drum must be obtained at least once every 24 months; 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 45 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 or if the owner or operator submits written notice to the Agency that the use of 1-Bromopropane at the facility has been discontinued.

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	8/6/2024
Inspector:	Gerard Van der Jagt	8/8/2024
Second Review:	John Dawson	8/7/2024
Applicant Name:	Shawn Crane	8/13/2024