Notice of Construction (NOC) Worksheet

PUGET SOUND
Clean Air Agency

Source: Safran Cabin	**NOC Number: 12527**
Installation Address: 12806, 12810 & 12730 State Ave, Bldg #1/#2 /#3, Marysville, WA 98271	**Registration Number: 17033**
Contact Name: Cesar Gonzalez	**Contact Email: cesar-a.gonzalez-r@safrangroup.com**
Applied Date: 03-06-2025	**Contact Phone: (360) 888-8097**
Engineer: Maggie Corbin	**Inspector: Rain Yates**

A. DESCRIPTION

For the Order of Approval:

One C4-2 adhesive application line consisting of five ovens and two coaters. One Legacy adhesive application line consisting of four ovens and two enclosed resin application areas. Emissions from the Legacy line application areas and two of the Legacy line ovens are controlled by one 1.9 MMBtu/hr natural gas-fired Triton 10.95 regenerative thermal oxidizer. Emissions from the C4-2 line ovens and two of the Legacy line ovens are controlled by one 4 MMBtu/hr natural gas-fired Triton 15.95 regenerative thermal oxidizer.

Facility

Safran was permitted to operate three adhesive application processes in the building located at 12806 State Avenue in Marysville within Safran's facility, referred to as the C4-1, C4-2, and Legacy lines. These lines are used to produce honeycomb core, which is used as a structural material for aerospace parts. All three lines use GP7649 resin, which contains phenol and formaldehyde.

The C4-1 line has been removed from the facility reducing potential emissions of VOC, phenol and formaldehyde.

The C4-2 line produces thin sheets of honeycomb core, and the Legacy line produces large honeycomb core blocks. For the C4-2 line, a continuous flow of resin is applied to the honeycomb sheet as it travels on a conveyor through the coaters, and the resin is cured in ovens staged along the conveyor. For the Legacy line, an uncoated honeycomb block is loaded into one of the enclosed resin application areas. A flow coater is used to coat the block in resin. Then, the enclosure is opened, and the block is manually transferred to a curing oven.

The lines are currently permitted under NOC Order of Approval No. 12500 to include the following equipment:

- One C4-2 adhesive application line: Five curing ovens, two coaters. Emissions from the ovens are controlled by the Triton 15.95 RTO, and emissions from the coaters uncontrolled.

- One Legacy adhesive application line: Four curing ovens, two enclosed resin application areas. Emissions from the ovens are controlled by the Triton 15.95 RTO. Emissions from the resin application areas are controlled by the Triton 10.95 RTO.

The facility operates under facility-wide emission limits to retain their status as a non-major source of hazardous air pollutants (HAPs) and volatile organic compounds (VOCs).

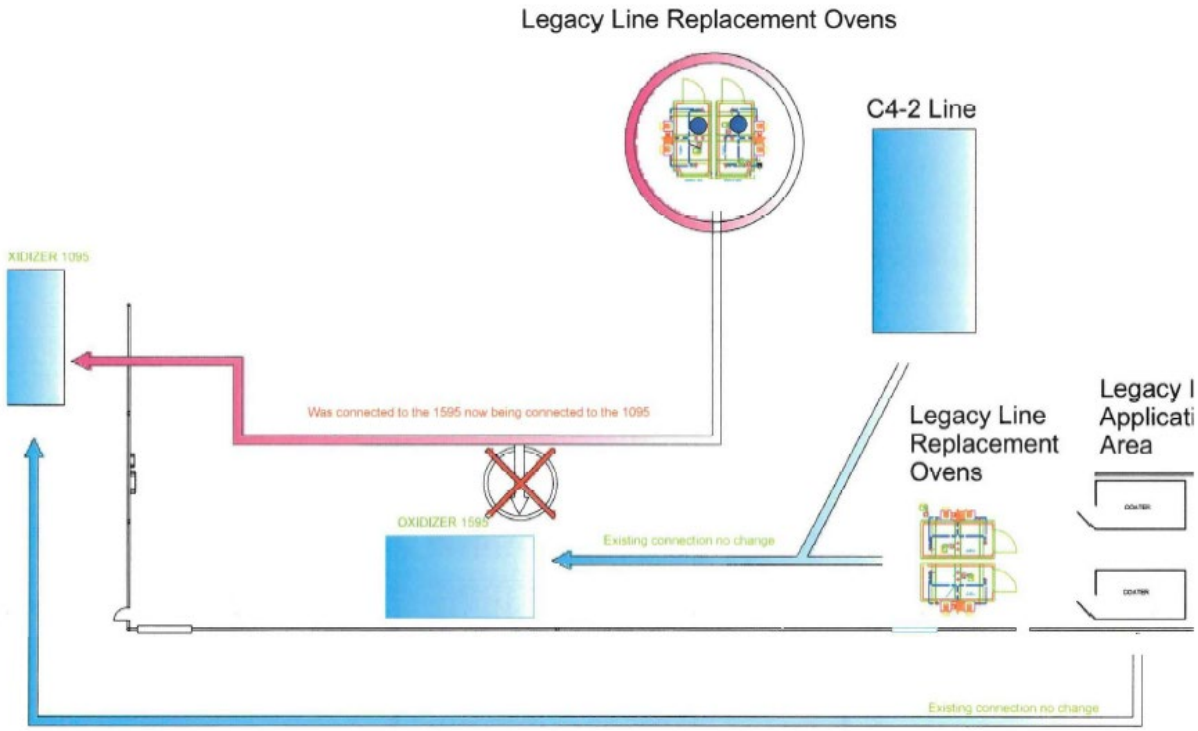
Proposed Equipment/Activities

The applicant is proposing the following changes to their operations:

1. Removal of the C4-1 line from the facility (this was removed in the previous permit – Order of Approval 12500)
2. Replacement of four existing Legacy production line ovens with new ovens
3. Two of the replacement ovens will route their exhaust to the Triton 10.95 and the remaining two will route their exhaust to the Triton 15.95. Currently all four ovens are routed to the Triton 15.95.

The facility anticipates similar throughput to the existing ovens and is not requesting any change to facility-wide emission limitations.

The flow diagram below shows the replacement ovens and the routing to the two RTO's.



Permit History

These operations are currently permitted under NOC Order of Approval No. 12500 issued February 7, 2025. This permit updated the emission limits on the RTO to eliminate the oxygen correction which was consistent with the original BACT determination. The most recent BACT determination was conducted during the review of installation of a new RTO under 10715 and a RACT determination was conducted when the existing control system was modified (NOC 11806). The permit history is shown in the table below:

4519 8/6/02 6/26/92 Superseded by OA 9538	Two Southwestern Systems Natural Gas Afterburners at 3100 cfm (1400F), one serving two Honeycomb Curing Ovens, and one serving a single oven. Two in-line conveyor type stage cure ovens, and one in-line conveyor-type post cure oven	Thermal Oxidizer capable of 99% destruction efficiency for VOC using EPA Method 25A	Original permit. Modified in 2002 for addition of new ovens which debottlenecked the process and allowed higher production rate.
8356 1/23/01 5/16/02 Superseded by OA 9538	One Catalytic Products Quadrant Thermal Oxidizer rated at 6,000 cfm and 1400 degrees F	No change	Requested temperature change of oxidizer from 1400 F to 1350 F
9538 1/30/07 Superseded by OA 9872	One 15,000 scfm Catalytic Products Triton natural gas regenerative thermal oxidizer and one natural gas Catalytic Products Quadrant thermal oxidizer rated at 6,000 scfm to control five 1,000 scfm ovens (C4 nodeline adhesive production line) and four 1,200 scfm ovens (Legacy nodeline adhesive production line).	99.0% or higher destruction efficiency for VOC using EPA Method 25A	Installation of RTO to control emissions from C4 and Legacy nodeline adhesive application processes. Existing ovens but bottleneck with existing 6000 cfm oxidizer permitted under 8356. Permit brought in existing 6000 cfm oxidizer and C4 and Legacy production lines (OA 8356) but equipment under 4519 no longer exist to removed as part of this permit process.
9872 7/31/08 Modified 2/23/09 Superseded by OA 10426	One 15,000 scfm Catalytic Products Triton natural gas regenerative thermal oxidizer to control five 1,000 scfm ovens (C4 nodeline adhesive production line) and four 1,200 scfm ovens (Legacy nodeline adhesive production line).	BACT/tBACT updated based on test results and BAAQMD BACT for printing processes which were determined to have similar types of emissions. Modified to at least 98.5% destruction efficiency for VOC or <10 ppmdv or less at the RTO outlet calculated using EPA Method 25A	New VOC limit for Triton RTP and remove 6000 cfm oxidizer since no longer in use. Removal efficiency of 99.0% could not be met because of low VOC loading. Removed limit on formaldehyde based on test results
10426 2/29/23 Superseded by OA 10715	One C4(2) nodeline adhesive production line with two coaters and five ovens, 1,500 scfm each; One C4 nodeline adhesive production line with five ovens, 1,000 scfm each;	No change with increase in emissions At least 98.5% destruction efficiency for VOC or <10 ppmdv or less at the RTO outlet	Addition of a second nodeline adhesive production line

	One Legacy nodeline adhesive production line with four ovens, 1,200 scfm each. Emissions from the C4, C4(2), and Legacy line ovens are controlled by the Catalytic Products Triton natural gas regenerative thermal oxidizer, rated for 15,000 cfm.	calculated using EPA Method 25A	
10715 3/28/14 Superseded by OA 11806	Addition of one 1.9 MMBtu/hour natural gas fired Regenerative Thermal Oxidizer (RTO) Triton-10.95 to control the emission from the existing C4 (1) node line adhesive application line	At least 98.5% destruction efficiency for VOC or <10 ppmdv or less at the RTO outlet calculated using EPA Method 25A	Installation of an RTO to control emissions of C4 (1) adhesive application line to allow for operation of Legacy, C4 (1) and C4 (2 lines concurrently
11806	One C4-1 adhesive application line consisting of five ovens and two coaters. One C4-2 adhesive application line consisting of five ovens and two coaters. One Legacy adhesive application line consisting of four ovens and two enclosed resin application areas. Emissions from the C4-1 line ovens and Legacy line application areas are controlled by one 1.9 MMBtu/hr natural gas-fired Triton 10.95 regenerative thermal oxidizer. Emissions from the C4-2 line ovens and Legacy line ovens are controlled by one 4 MMBtu/hr natural gas-fired Triton 15.95 regenerative thermal oxidizer	RACT determination: The technical worksheet specifies the existing BACT emission limit is: destruction efficiency of 98.5% or an outlet VOC concentration not exceeding 10 ppmdv, as measured by EPA Method 25A as hexane, on a dry, volumetric basis corrected to 3% O_2. RACT determined to be maintaining this same emission limit although anticipated with higher load of VOCs being routed to Triton 10.95, it was assumed the higher efficiency limit would be met. Addressed capture efficiency and phenol polymerization.	Proposal to modify the existing control system for the Legacy line by routing uncontrolled emissions to the Triton 10.95 RTO
12500	One C4-2 adhesive application line consisting of five ovens and two coaters. One Legacy adhesive application line consisting of four ovens and two enclosed resin application areas. Emissions from the Legacy line application areas are controlled by one 1.9 MMBtu/hr natural gas-fired Triton 10.95 regenerative thermal oxidizer. Emissions from the C4-2 line ovens and Legacy line ovens are controlled by one 4 MMBtu/hr natural gas-fired Triton 15.95 regenerative thermal oxidizer.	Update BACT analysis	No change except reflected removal of C4-1 line.

B. DATABASE INFORMATION

New NSPS due to this NOCOA?	**No**
New NESHAP due to this NOCOA?	**No**
New Synthetic Minor due to this NOCOA?	**Yes**

The source is operating under a synthetic minor emission limit under Order of Approval No. 12500. The emission limits will be transferred to this Order of Approval.

C. NOC FEES AND ANNUAL REGISTRATION FEES

NOC Fees:

Fees have been assessed in accordance with the fee schedule in Regulation I, Section 6.04. All fees must be paid prior to issuance of the final Order of Approval.

Fee Description	Cost	Amount Received (Date)
Filing Fee	$ 3,000	
Equipment - 4 replacement ovens and modification to existing control system	$2,000	
Public Notice Fee	$750 + publication fees	
Filing received		$ 3,000 (3/6/2025)
Additional fee received		$2,000 (5/23/2025)
Public Notice Fee + publication costs		$750 + publication fees (TBD)
Total		**$5,750**

Registration Fees:
Registration fees are assessed to the facility on an annual basis. Fees are assessed in accordance with Regulation I, Section 5.07. No change in the registration fee categories with this proposed modification.

PUGET SOUND
Clean Air Agency

Invoice for Year 2025 Registration Fees

Bill To:
Safran Cabin **12810 State Avenue** **Marysville, WA 98271** **Attention: Accounts Payable**

Invoice Date:	Invoice #:
November 22, 2024	20250047
Due Date:	**Terms:**
January 06, 2025	Net 45 Days
Facility ID (Registration #):	
17033	

Site Address: ***Safran Cabin***
12806, 12810 & 12730 State Ave, Bldg #1/#2 /#3, Marysville, WA 98271

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)			$ 1,418.00
Reg I, 5.03(a)(3) - Facilities with annual emissions that meet or exceed thresholds			
Reg I, 5.03(a)(4)(M) - Facilities with aerospace coating operations			
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)(2) - Facilities with annual emissions that meet or exceed thresholds			$ 2,804.00
			$ 4,222.00
Emission Surcharges - Reg I, 5.07(c)(3)	**Tons in 2023**	**Per Ton**	
CO (Carbon Monoxide)	4	$ 30	$ 120.00
HAP (Hazardous Air Pollutants)	16	$ 60	$ 960.00
NOx (Nitrogen Oxides)	5	$ 60	$ 300.00
PM10 (Particulate Matter < 10 microns)	6	$ 60	$ 360.00
VOC (Volatile Organic Compounds)	52	$ 60	$ 3,120.00
			$ 4,860.00
Fee Totals			
TOTAL REGISTRATION FEE			**$ 9,082.00**
The Total Registration Fee is due by January 06, 2025. If unpaid after January 06, 2025, the facility may be subject to enforcement action with civil penalties (Reg I, 5.07(b)).			

D. STATE ENVIRONMENTAL POLICY ACT (SEPA) REVIEW

State Environmental Policy Act (SEPA) review was conducted in accordance with 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 new SEPA determination is not required because the potential impacts from this project have already been reviewed. The C4-1, C4-2, and Legacy lines and Triton 15.95 RTO were reviewed under SEPA by PSCAA, and a DNS was issued by PSCAA on February 29, 2012 (Order No. 10426, issued February 29, 2012). The Triton 10.95 RTO was reviewed under SEPA by PSCAA, and a DNS was issued by PSCAA on

March 28, 2014 (Order No. 10715, issued March 28, 2014). Copies of these DNS are included below and are being relied upon for this project.


10426-dns.pdf


10715-dns.pdf

This proposed change reviews replacement ovens but there will be no change in the raw materials used in the replacement ovens and no change in throughput. In addition, two of the ovens will be rerouted to the second RTO.

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.

F. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) REVIEW

Best Available Control Technology (BACT)

New stationary sources of air pollution are required to use BACT to control all pollutants not previously emitted, or those for which emissions would increase as a result of the new source or modification. BACT is defined in WAC 173-400-030 as, "an emission limitation based on the maximum degree of reduction for each air pollutant subject to regulation under Chapter 70.94 [now 70A.15] RCW emitted from or which results from any new or modified stationary source, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each pollutant."

An emissions standard or emissions limitation means "a requirement established under the Federal Clean Air Act or Chapter 70.94 [now 70A.15] RCW which limits the quantity, rate, or concentration of emissions of air contaminants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction and any design, equipment, work practice, or operational standard adopted under the Federal Clean Air Act or Chapter 70.94 [now 70A.15] RCW."

Best Available Control Technology for Toxics (tBACT)

New or modified sources are required to use tBACT for emissions control for TAP. Best available control technology for toxics (tBACT) is defined in WAC 173-460-020 as, "the term defined in WAC 173-400-030, as applied to TAP."

Analysis

Safran is proposing to replace the four ovens used for post cure and stage cure in the Legacy production line and to modify the existing control system to route two of these replacement ovens through the existing Triton 10.95 regenerative thermal oxidizer (RTO). The two other replacement ovens will be routed through the existing Triton 15.95 RTO. The four existing ovens are currently routed through the Triton 15.95 RTO. The facility is no longer operating the C4-1 production line which was previously routed to the Triton 10.95. This modification to the control system will redistribute the emissions and flow more evenly between the two RTOs. Each oven is rated at 1.5 MMBtu/hr.

According to the applicant, each enclosure will have an exhaust flow rate of roughly 2,000 acfm.

Based on NOC application #10426 (for the installation of the Triton 10.95 RTO), the Triton 10.95 RTO has the design capacity to handle 10,000 scfm. Based on the most recent stack test for the Triton 10.95 RTO (conducted on April 16, 2024), the RTO had an average inlet flow rate of 5,145 scfm. Based on this information, it is expected that the Triton 10.95 RTO has the additional capacity available for the exhaust from two of the Legacy line ovens.

Based on NOC application #10715 (for the installation of the Triton 15.95 RTO), the Triton 15.95 RTO has the design capacity to handle 15,000 scfm. Based on the most recent stack test for the Triton 15.95 RTO (conducted on April 17, 2024), the RTO had an average inlet flow rate of 10,970 scfm.

The Triton 10.95 and Triton 15.95 RTO's each currently have the following emission limits:

a. A minimum non-methane organic compound (NMOC) destruction efficiency of 98.5 percent; or
b. An outlet NMOC concentration of no greater than 10 parts per million as propane, on a dry, volumetric basis.

Based on a review of the analysis completed on these operations under previous permitting I recommend maintaining the same emission limits. Safran will be required to conduct a source test within 180 days of installation of the four replacement ovens to verify that each RTO still meets the emission limitations. Two ovens will be replaced in the third quarter of 2025, and two will be replaced in the last quarter of 2025.

The Legacy enclosed resin application areas are required to meet the criteria for a permanent total enclosure (PTE) to demonstrate that they have 100% capture efficiency. In addition, a minimum 90% (by weight) capture efficiency requirement for the entire Legacy line (Steps 1 through 4 listed in Section A of this worksheet) was established by Order of Approval No 11806 to meet RACT. There are no proposed changes to the Legacy line including the enclosed resin application area. Safran is required to continue to meet the requirements established under this previous review. This includes periodically testing the

emissions from the Legacy line, calculating the capture efficiency, and verifying that it is above the 90% capture efficiency requirement.

As part of this review, I also evaluated the need to conduct additional testing on capture efficiency for the C4-2 line. Based on information in the NOC 11806 review, average GP7649 resin usage for the Legacy line constitutes roughly 86% of the combined GP7649 resin usage for the three lines permitted at the time. The capture efficiency of the C4-1 line was tested once and was determined to be 69%. The capture efficiency of the C4-2 line has never been tested. At the time of permitting in 2020, it was determined that since the C4-1 and C4-2 lines have low resin usage compared to the Legacy line, the capture efficiency did not currently have a large effect on the resulting facility-wide emissions. Order of Approval 11806 established a condition requiring Safran to test the overall capture efficiency of the C4-1 and/or C4-2 line if requested by the Agency. Based on a review of more recent production data, the resin usage for the Legacy line constitutes roughly 80% of the combined resin usage for the two remaining lines. Therefore, the assumption of 69% capture efficiency for the C4-2 line is adequate.

The applicant provided additional information in the June 9, 2025 e-mail from Mr. Kurtz (Terracon) requesting we not require additional capture efficiency testing on the C4-2 line.

"The old C4-1 line that was removed had capture efficiency testing performed in 2015. The testing was only performed one time due to the difficulty of collecting the data required. This capture efficiency was applied to both the C4-1 and C4-2 lines. Safran is proposing to utilize the capture efficiency from that testing (69%) moving forward. It should be noted that the C4-1 and C4-2 line are similar and there are no modifications occurring to the C4-2 line. In addition, the capture efficiency testing for the C4-2 line would be more difficult. It would require a temporary enclosure around the C4-2 line which includes the construction of four temporary walls (which may impede on an active walkway in the area for equipment and people) in addition to sealing exhaust fans in that area along with bringing in a temporary fan to pull the fugitive emissions from the temporary enclosure."

The updated permit does specify the 69% default capture efficiency unless additional testing is completed. And it retains the condition that the Agency could require capture efficiency testing for the C4-2 line, but that would likely only be necessary if the facility-wide emissions were closer to the limits established in the synthetic minor permit and carried over into this permit. The facility is required to notify the Agency if facility-wide emissions are within 80% of the limits which would provide the Agency an opportunity to determine if additional capture efficiency testing should be required.

Recommendations

Maintain existing emission limits on each RTO:

a. A minimum non-methane organic compound (NMOC) destruction efficiency of 98.5 percent; or
b. An outlet NMOC concentration of no greater than 10 parts per million as propane, on a dry, volumetric basis.

G. EMISSION ESTIMATES

Proposed Project Emissions

Potential Emissions

The replacement of existing ovens is considered a new source. Emissions from all four ovens in the Legacy line have been calculated as follows:

(Legacy resin usage * RTO Capture Efficiency * (1-RTO Destruction Efficiency) * Composition of pollutants in GP7649) + (Legacy Resin Usage * (1-RTO capture Efficiency) * Composition of pollutants in GP7649)

For phenol emissions, emissions were reduced based on phenol polymerization of 37% during the original NOC review. This is based on testing conducted by Georgia-Pacific in 2014. Safran is required to determine the phenol polymerization percentage during each source test, but the permit requires emission calculations based on the less of 37% or the lowest polymerization rate measured during the phenol polymerization testing. Polymerization rate has varied significantly with the tests so for this review, the emissions reductions continue to use the 37% reduction due to phenol polymerization.

The applicant submitted updated emission calculations in an e-mail on 5/6/2025. The applicant requested a limit on their Legacy Line resin usage which has been incorporated into the permit. With this limit, the facility can comply with WAC 173-460 by offsetting toxic emissions (See Section I. Ambient Air Toxics Analysis).

Potential Emission Calculations Based on Limited Usage:

Assumptions:

- Legacy Line Resin Annual Limited Usage: 548,000 lbs
- 90% of emissions are captured in the ovens. This is based on the capture stack testing from previous stack tests. The application area and ovens are both 100% capture, however, the majority of the captured emissions occur in the oven. As such, it was assumed that the 90% capture efficiency are from the ovens.
- Destruction efficiency: 98.5% (permit limit for RTO 15.95)
- VOC Emission Factor = Approximately 1.22 lb/lb resin based on original NOC calculations
- Formaldehyde is 1.5% of resin
- Phenol is 12.94% of resin (based on maximum phenol % of batches)
- Phenol polymerization is 37%

Potential Emissions:

Oven VOC Limited Emissions: 548,000 lbs x 0.9 x (1-0.985) = 5 tons/year

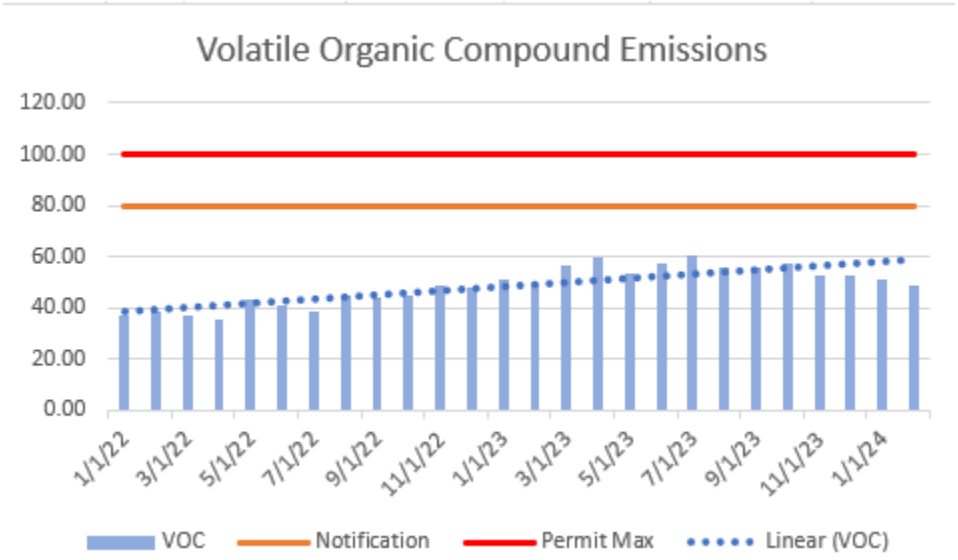
Oven Formaldehyde Limited Emissions: 548,000 lbs x 0.9 x 0.015 x (1-0.985) = 110.97 lbs of formaldehyde emissions

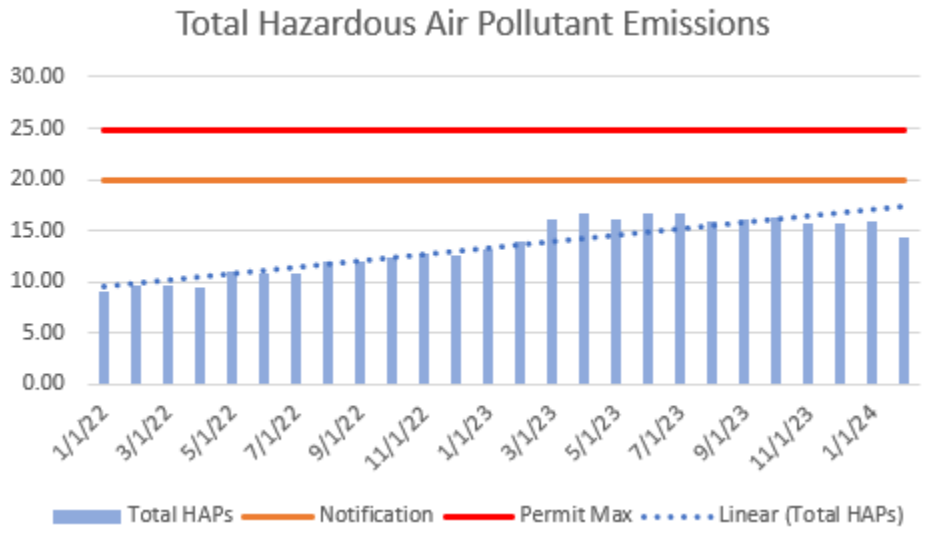
Oven Phenol Limited Emissions: 548,000 lbs x 0.9 x 0.1294 x (1-0.37) x (1-0.985) = 604.09 lbs of phenol emissions (1.66 lbs per day on average)

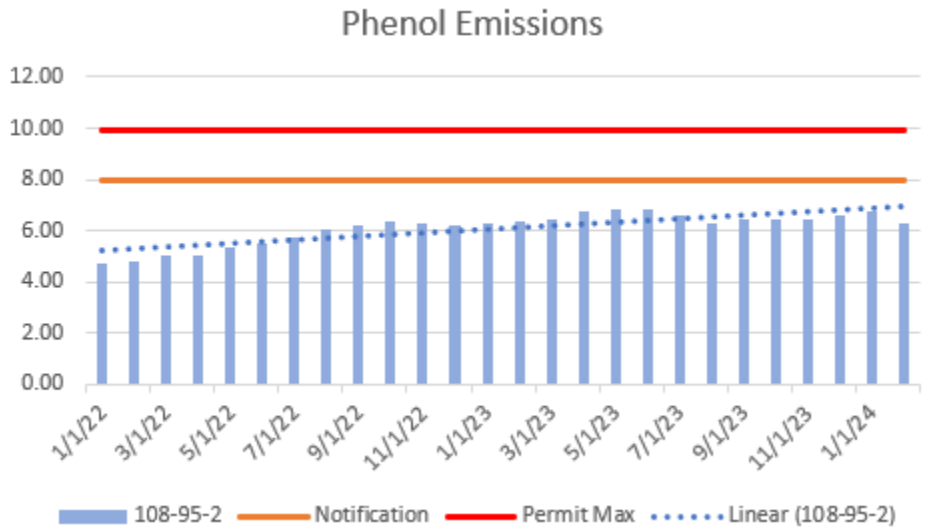
Facility-wide Emissions

Synthetic minor limits were established in previous Orders of Approval and are being transferred to this Order of Approval to continue to limit the potential VOC, total HAP, and single HAP emissions from the facility. Facility-wide emissions will be limited to 9.9 tons of any single HAP, 24.9 tons of total HAP, and 99.0 tons of VOC.

I reviewed recent records and the facility remains below these limits.







Reporting Source? Yes. Safran is currently a reporting source of VOC, total HAP, phenol, and methanol. Emissions from the facility will not be affected by this project. Safran self-reports emissions annually. A summary of emissions for the previous five years is shown below:

	2019	2020	2021	2022	2023
CO	3.7	3.0	4.0	4.6	4.3
NO2	4.4	3.6	4.7	5.5	5.1
HAP	17.4	7.9	9.3	12.7	15.8
TAC	30.0	17.9	16.5	19.2	23.4
VOC	63.5	39.8	38.6	47.7	52.4
PM10	6.7	2.0	2.4	5.6	6.2
PM2.5	0.3	0.3	0.4	0.4	0.4
SO2	0.0	0.0	0.0	0.0	0.0

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 the following Order of Approval No. 12500. The source is considered a "**synthetic minor**". These emission limits will be transferred to this Order but are not being modified by this proposed action.

Emission increases associated with this project were reviewed for Prevention of Significant Deterioration (PSD) Program applicability. The modification of the control system will not result in an increase in emissions.

I. AMBIENT TOXICS IMPACT ANALYSIS

The estimated potential toxic air pollutant (TAP) emissions are based on limited throughput for the legacy line of 548,000 pounds per year requested by the applicant in their 5/6/2025 e-mail. Since the ovens are replacement ovens, they are considered a new source.

Potential emissions (limited throughput):

Assumptions:

- Legacy Line Resin Annual Limited Usage: 548,000 lbs
- 90% of emissions are captured in the ovens. This is based on the capture stack testing from previous stack tests. The application area and ovens are both 100% capture, however, the majority of the captured emissions occur in the oven. As such, it was assumed that the 90% capture efficiency are from the ovens.
- Destruction efficiency: 98.5% (permit limit for RTO 15.95)
- Formaldehyde is 1.5% of resin
- Phenol is 12.94% of resin (based on maximum phenol % of batches)
- Phenol polymerization is 37%

Potential Emissions:

- Oven Formaldehyde Limited Emissions: 548,000 lbs x 0.9 x 0.015 x (1-0.985) = 110.97 lbs of formaldehyde emissions
- Oven Phenol Limited Emissions: 548,000 lbs x 0.9 x 0.1294 x (1-0.37) x (1-0.985) = 604.09 lbs of phenol emissions (1.66 lbs per day on average)

The SQER for phenol is based on a 24 hour average and is 15 lb/day. The SQER for formaldehyde is based on an annual average and is 27 lbs/year. Estimated potential emissions both formaldehyde and phenol exceed the Small Quantity Emission Rates (SQER) in WAC 173-460-150.

In this case, the ovens are being replaced so there is an associated reduction of TAPS from the existing ovens. In accordance with WAC 173-460-080, proposed reductions of actual emissions of a particular TAP from emission units at the source may be used for offsetting emissions of TAP caused by the new or modified source.

Actual emissions used in off-setting analysis:

Assumptions:

- Legacy Line Resin Annual Actual Usage (average of 2023 and 2024 usage): 389,597 lbs
- 90% of emissions are captured in the ovens. This is based on the capture stack testing from previous stack tests. The application area and ovens are both 100% capture, however, the majority of the captured emissions occur in the oven. As such, it was assumed that the 90% capture efficiency are from the ovens.
- Destruction efficiency: 98.4% (from 2024 stack test for RTO 15.95)
- Formaldehyde is 1.5% of resin
- Phenol is 12.94% of resin (based on maximum phenol % of batches)

- Phenol polymerization is 37%

Actual Emissions:

- Oven Formaldehyde Actual Emissions: 389,597 lbs x 0.9 x 0.015 x (1-0.984) = 84.15 lbs of formaldehyde emissions
- Oven Phenol Actual Emissions: 389,597 x 0.9 x 0.1294 x (1-0.37) x (1-0.984) = 457.35 lbs of phenol emissions (1.25 lbs per day on average)

Offsetting Calculations

Formaldehyde emission increase: 26.82 lbs per year which is below the SQER for formaldehyde of 27 lbs per year.

Phenol emission increase: 0.41 lbs per day which is below the SQER for phenol of 15 lbs per day.

With the limit on resin throughput, the facility can comply with WAC 173-460 by offsetting toxic emissions associated with removal of existing ovens.

J. APPLICABLE RULES & REGULATIONS

Puget Sound Clean Air Agency Regulations

SECTION 5.05 (c): The owner or operator of a registered source shall develop and implement an operation and maintenance plan to ensure continuous compliance with Regulations I, II, and III. A copy of the plan shall be filed with the Control Officer upon request. The plan shall reflect good industrial practice and shall include, but not be limited to, the following:
(1) Periodic inspection of all equipment and control equipment;
(2) Monitoring and recording of equipment and control equipment performance;
(3) Prompt repair of any defective equipment or control equipment;
(4) Procedures for startup, shut down, and normal operation;
(5) The control measures to be employed to ensure compliance with Section 9.15 of this regulation; and
(6) A record of all actions required by the plan.
The plan shall be reviewed by the source owner or operator at least annually and updated to reflect any changes in good industrial practice.

SECTION 6.09: Within 30 days of completion of the installation or modification of a stationary source subject to the provisions of Article 6 of this regulation, the owner or operator or applicant shall file a Notice of Completion with the Agency. Each Notice of Completion shall be submitted on a form provided by the Agency, and shall specify the date upon which operation of the stationary source has commenced or will commence.

SECTION 9.03: (a) It shall be unlawful for any person to cause or allow the emission of any air contaminant for a period or periods aggregating more than 3 minutes in any 1 hour, which is:
(1) Darker in shade than that designated as No. 1 (20% density) on the Ringelmann Chart, as published by the United States Bureau of Mines; or

(2) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in Section 9.03(a)(1).
(b) The density or opacity of an air contaminant shall be measured at the point of its emission, except when the point of emission cannot be readily observed, it may be measured at an observable point of the plume nearest the point of emission.
(c) This section shall not apply when the presence of uncombined water is the only reason for the failure of the emission to meet the requirements of this section.

SECTION 9.09: General Particulate Matter (PM) Standard. It shall be unlawful for any person to cause or allow the emission of particulate matter in excess of the following concentrations:
Equipment Used in a Manufacturing Process: 0.05 gr/dscf

SECTION 9.11: It shall be unlawful for any person to cause or allow the emission of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property.

SECTION 9.13: It shall be unlawful for any person to cause or allow the installation or use of any device or use of any means designed to mask the emission of an air contaminant which causes detriment to health, safety or welfare of any person.

SECTION 9.15: It shall be unlawful for any person to cause or allow visible emissions of fugitive dust unless reasonable precautions are employed to minimize the emissions. Reasonable precautions include, but are not limited to, the following:
(1) The use of control equipment, enclosures, and wet (or chemical) suppression techniques, as practical, and curtailment during high winds;
(2) Surfacing roadways and parking areas with asphalt, concrete, or gravel;
(3) Treating temporary, low-traffic areas (e.g., construction sites) with water or chemical stabilizers, reducing vehicle speeds, constructing pavement or rip rap exit aprons, and cleaning vehicle undercarriages before they exit to prevent the track-out of mud or dirt onto paved public roadways; or
(4) Covering or wetting truck loads or allowing adequate freeboard to prevent the escape of dust-bearing materials.

REGULATION I, SECTION 9.20(a): It shall be unlawful for any person to cause or allow the operation of any features, machines or devices constituting parts of or called for by plans, specifications, or other information submitted pursuant to Article 6 of Regulation I unless such features, machines or devices are maintained in good working order.

Washington State Administrative Code

WAC 173-400-040(3): Fallout. No person shall cause or allow the emission of particulate matter from any source to be deposited beyond the property under direct control of the owner or operator of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.

WAC 173-400-040(4): Fugitive emissions. The owner or operator of any emissions unit engaging in materials handling, construction, demolition or other operation which is a source of fugitive emission:

(a) If located in an attainment area and not impacting any nonattainment area, shall take reasonable precautions to prevent the release of air contaminants from the operation.

WAC173-400-111(7): Construction limitations.

(a) Approval to construct or modify a stationary source becomes invalid if construction is not commenced within eighteen months after receipt of the approval, if construction is discontinued for a period of eighteen months or more, or if construction is not completed within a reasonable time. The permitting authority may extend the eighteen-month period upon a satisfactory showing by the permittee that an extension is justified.

Federal

NESHAP Subpart WWWW – Reinforced Plastic Composites Production

NESHAP Subpart WWWW applies to reinforced plastic composites production facilities that are major sources of HAP emissions. Since Safran is a synthetic minor source of HAP emissions, Subpart WWWW does not apply to Safran.

K. PUBLIC NOTICE

This project meets the criteria for mandatory public notice under WAC 173-400-171(3). Criteria requiring public notice includes, but is not limited to, a project that exceeds emission threshold rates as defined in WAC 173-400-030 (e.g. 40 tpy NOx, VOC, or SO_2, 100 tpy CO, 15 tpy PM_{10}, 10 tpy $PM_{2.5}$, 0.6 tpy lead), includes a WAC 173-400-091 synthetic minor limit, has a toxic air pollutant emission increase above the acceptable source impact level in WAC 173-460-150, or has significant public interest. In accordance with WAC 173-460-080(3), an applicant may include the reduction of toxic air pollutants from existing emission sources but the limits must be in the approval order and must meet the requirements in WAC 173-460-071.

<publish in Everett Herald and DJC>

A notice of application was posted on the Agency's website for 15 days. No requests or responses were received. A copy of the website posting is below:

Safran Cabin	12806, 12810 & 12730 State Ave, Bldg #1/#2 /#3, Marysville, WA 98271	The applicant is proposing to replace four existing ovens used in the production of large honeycomb core blocks (structural material for aerospace parts). Air pollutant emissions from the ovens will be controlled by existing thermal oxidizers (afterburners).	03/13/25	Maggie Corbin

L. RECOMMENDED APPROVAL CONDITIONS

Standard Conditions:

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the installation address in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.

2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.

Specific Conditions:

FACILITY-WIDE EMISSION LIMITS:

3. The owner or operator shall limit facility-wide emissions of hazardous air pollutants (HAPs) as established by 42 U.S.C 7412(b)(1) and amended in 40 CFR 63 Subpart C in Section 112(b) to less than 9.9 tons of any single listed HAP, 24.9 tons of all HAPs combined, and 99.0 tons of volatile organic compounds (VOCs) during any 12 consecutive months.

4. The owner or operator shall monitor and record quantities of all purchases of raw materials and quantities of full containers of expired, unused raw materials that were shipped as waste on a monthly basis. Raw materials include all products used at the facility that contribute to HAP and VOC emissions. The owner or operator shall maintain, on-site, safety data sheets or certified product data sheets for these raw materials.

5. Within 15 days of the end of each month, the owner or operator shall calculate the facility-wide emissions for each HAP, total HAP, and total VOC for the previous 12 months using a mass balance approach. Emissions shall be calculated using either the actual HAP content for each lot of material provided by the manufacturer or the maximum HAP content (% composition or lb/gallon), the VOC content (% composition or lb/gallon) of each coating, and the total amount (pounds or gallons) of each HAP- and VOC-containing material applied. Purchase records may be used as a surrogate for usage. If the actual HAP content for each lot of material provided by the manufacturer is used, the owner or operator shall maintain records from the manufacturer that show the HAP content contained in the batch as a weight percentage. For the C4-2, and Legacy lines, emissions shall be calculated in accordance with Condition 7. The owner or operator shall prepare monthly records that demonstrate that facility-wide emissions do not exceed the emission limits in Condition 3. Monthly records shall include the following:

    a. Monthly emissions of each HAP;
    b. Monthly emissions of total HAP;
    c. Monthly emissions of total VOC; and
    d. Emissions of each HAP, total HAP, and total VOC emitted over the previous consecutive 12-month period.

6. The owner or operator may not credit shipments of waste in the mass balance calculation, except waste shipments of full containers of expired, unused raw materials. For each waste shipment credited in the facility-wide emission calculations, the owner or operator shall maintain documentation showing that the material has been shipped offsite, including the name of the product, the date that the waste was shipped offsite, and the amount of material shipped.

7. For the emission calculations required by Condition 5 for the C4-2 and Legacy lines, the owner or operator shall comply with the following:

    a. The owner or operator shall apply a destruction efficiency for the percentage of the VOC, total HAP, and individual HAP emissions captured and routed to the regenerative thermal oxidizers (RTOs). The destruction efficiency used for each RTO for the current monthly emission calculations shall be determined by using the lowest destruction efficiency achieved by each RTO using the two most recent source tests for that RTO conducted in accordance with Conditions 16 or 17. The overall capture efficiency for the Legacy line shall be determined based on the most recent test conducted in accordance with Condition No. 19.

    b. The owner or operator may assume that the capture efficiency for the C4-2 line is 69 percent unless the overall capture of efficiency of the C4-2 line is tested in accordance with Condition No. 20.

    c. The owner or operator may use the actual phenol content for each batch of GP7649 resin used, instead of the maximum phenol content provided on the safety data sheet, provided that the owner or operator maintains records from the resin manufacturer for each batch received that shows the phenol content contained in the batch as a weight percentage.

    d. The owner or operator may assume that a percentage of the phenol contained in the GP7649 resin polymerizes and remains in the final honeycomb core product. If the owner or operator chooses to use this assumption, the phenol polymerization rate used for the current monthly emissions calculation shall be the lesser of 37% or the lowest polymerization rate measured during the phenol polymerization testing conducted in accordance with Condition 18.

8. The owner or operator shall notify the Puget Sound Clean Air Agency in writing, within 30 days after the end of each 12-month period if, during that period, emissions of any individual HAP exceeded 8.0 tons, emissions of any combination of HAP exceeded 20.0 tons, or emissions of VOC exceeded 80.0 tons. The report shall include a summary of the total 12-month emissions and the amount of resin used for the C4-2, and Legacy lines for the time period for which these thresholds were exceeded. Upon request, the owner or operator shall provide the supporting emission calculations for the reported emission totals.

LEGACY LINE RESIN USAGE LIMIT

9. The owner or operator shall limit resin usage to no more than 548,000 pounds during any consecutive 12-month period.

10. The owner or operator shall monitor and record resin usage in the Legacy Line and within 15 days of the end of each month, calculate and record the resin usage for the previous 12 months.

REGENERATIVE THERMAL OXIDIZER EMISSION LIMITS

11. The owner or operator shall only operate four ovens in the Legacy adhesive application line at any one time except during startup testing for the replacement ovens. Startup testing on each oven shall not be conducted for more than 30 days.

12. The exhaust from two of the Legacy production line ovens and the and C4-2 production line ovens shall be vented to the Catalytic Products Triton-15.95 Regenerative Thermal Oxidizer (RTO) for control. The RTO shall be operated at all times while the Legacy ovens or C4-2 production line is running.

13. The exhaust from the two enclosed Legacy resin application areas and two of the Legacy production line ovens shall be vented to the Catalytic Products Triton-10.95 RTO for control. The RTO shall be operated at all times while the Legacy production line is running.

14. Each RTO must meet one of the following emission limits, as determined by EPA Method 25A:

    a. A minimum non-methane organic compound (NMOC) destruction efficiency of 98.5 percent; or
    b. An outlet NMOC concentration of no greater than 10 parts per million as propane, on a dry, volumetric basis.

CAPTURE EFFICIENCY LIMITS

15. The owner or operator shall capture at least 90% by weight of the VOC emissions from the Legacy line, including the ovens, resin application areas, and all intermediate steps. The Legacy enclosed resin application areas shall meet the criteria for a Permanent Total Enclosure (PTE) in 40 CFR Part 51, Appendix M, Method 204.

COMPLIANCE DEMONSTRATION

16. Within 180 days of installation of all four replacement ovens but no later than June 28, 2026, the owner or operator shall test emissions from the Triton 10.95 RTO and the Triton 15.95 RTO in accordance with Regulation I, Section 3.07 to demonstrate compliance with Condition 14. Testing shall consist of at least three, one hour runs using EPA Method 25A and shall include simultaneous measurements at the inlet and outlet of the RTO. The owner or operator shall submit a compliance test plan with the test notification submitted under Regulation I, Section 3.07(b) at least 21 days prior to the compliance test. The test plan shall detail the test methods used for each pollutant, the operational data that will be collected during the test, and any other relevant information about the test.

17. To demonstrate ongoing compliance with Condition 14, the owner or operator shall test emissions from the Triton 10.95 RTO and the Triton 15.95 RTO at least once every 3 years in accordance with Regulation I, Section 3.07. Testing shall consist of at least three, one hour runs using EPA Method 25A and shall include simultaneous measurements at the inlet and outlet of each RTO. The owner or operator shall submit a compliance test plan with the test notification submitted under Regulation I, Section 3.07(b) at least 21 days prior to each compliance test. The test plan shall detail the test

methods used for each pollutant, the operational data that will be collected during the test, and any other relevant information about the test. During all compliance tests, the exhaust shall be sampled at a location prior to the addition of dilution air to the system.

18. For each source test conducted in accordance with Condition Nos. 16 and 17 the owner or operator shall determine the phenol polymerization percentage during each test run. In the test plan required by Condition Nos. 16 and 17, the owner or operator shall detail the proposed testing methodology, including test method that will be used and the methodology used for calculating the polymerization percentage.

19. For each source test conducted in accordance with Condition Nos. 16 and 17, the owner or operator must test the overall capture efficiency of the Legacy line. The owner or operator shall submit a compliance test plan and test notification at least 21 days prior to the compliance test. The test plan shall detail the testing procedure, the operational data that will be collected during the test, and any other relevant information about the test.

20. If requested by the Agency, the owner or operator must test the overall capture efficiency of the C4-2 line in the timeframe requested by the Agency. If a test is required by the Agency, the owner or operator shall submit a compliance test plan and test notification at least 21 days prior to the compliance test. The test plan shall detail the testing procedure, the operational data that will be collected during the test, and any other relevant information about the test.

OPERATING LIMITS

21. After the Legacy resin application process is complete and the resin application enclosure is opened, each block shall immediately be transferred to an open curing oven.

22. The RTOs shall be operated at or above the average temperature maintained during the last stack test but shall not be operated at less than 1,400 °F, 1-minute average. The average temperature during the last stack test for each RTO shall be identified at or near the temperature monitor.

23. Each RTO shall be equipped with a thermocouple near the exit of the combustion chamber to measure temperature to +/- 14 °F. Temperature data must be measured and recorded continuously (or sampled at intervals no greater than 10 seconds and recorded as 1 minute averages).

24. The owner or operator shall annually test and calibrate or replace the thermocouples for each RTO. If performed, the test shall consist of either a physical or electronically simulated comparison and shall follow manufacturer specifications. The results of the test readings must be within +/- 14 °F. If the results of the test readings exceed +/- 14 °F of the reference value, the thermocouple must be replaced or adjusted to read within +/- 14 °F of the reference value. The owner or operator shall keep records of thermocouple calibration test reports, including the date and results of each test, the test method used, and a record of who performed the test. If the thermocouple is replaced, the owner or operator shall keep a record of the date it was replaced and who replaced it.

RECORDS

25. The owner or operator shall maintain records required by this Order of Approval for five years and make them available to Puget Sound Clean Air Agency personnel upon request.

26. Upon installation of the replacement curing ovens, this Order supersedes and cancels Order of Approval No. 12500 dated February 7, 2025.

M. CORRESPONDENCE AND SUPPORTING DOCUMENTS

Requested monthly and annual emissions of HAP and VOC emissions.

On 6/9/2025, comments were received on the preliminary draft Order and technical document from Josh Kurtz (Terracon) representing the applicant. The draft Order was updated based on these comments. The comments have been included in the electronic NOC folder and are considered a supplement to the application.

All e-mail communications regarding this NOC are included in the Agency e-mail management system.

N. REVIEWS

Reviews	Name	Date
Engineer:	Maggie Corbin	April 11, 2025 Updated May 14, 2025
Inspector:	Rain Yates	April 14, 2025
Second Review:	John Dawson	May 14, 2025
Applicant Name:	César A. González/Josh Kurtz	June 9, 2025