northwest Clean Air agency
1600 South Second Street
Mount Vernon, WA 98273-5202
ph 360-428-1617

Notice of Construction Technical Worksheet

NOC No. **1357**	Source: **Aspen Catamarans** **11977 Westar Lane** **Burlington, WA 98233**
Permit Engineer: **Shannon Logan**	
NOC Received: **9/16/2020**	NOC Contact: **Dennis Pearson** NWCAA No.: **2038**

A. Project Description

New spray booth with exhaust filters to house fiberglass lamination of boats and boat parts at an existing boat manufacturing facility.

B. New Source Review (NSR) Fees

NWCAA NSR fees have been assessed in accordance with the NWCAA fee schedule. The NSR fees assessed and amount paid are listed in the NSR Fee Worksheet posted on the OAC Whiteboard for this project.

C. Public Notice

In accordance with NWCAA Section 305.1, an internet notice that the NWCAA received this NOC application and/or OAC revision request was posted on the NWCAA website for a minimum of 15 consecutive days ending on October 2, 2020.

Formal public involvement and notification (i.e., comment period and/or hearing) is not required for this project because the project review does not meet any of the criteria set forth in NWCAA 305.2. Criteria requiring public notice includes, but is not limited to, a project that exceeds a PSD threshold (e.g. 40 tpy NOx, 100 typ CO, 15 tpy PM_{10}), includes an -091 synthetic minor limit, has a TAP that exceeds the ASIL, has significant public interest, or a project that a public comment period has been requested by an individual during the period that the NOC was posted on the NWCAA website.

D. SEPA Review

State Environmental Policy Act (SEPA) review under NWCAA Section 155 is addressed as follows.

The NWCAA is the SEPA lead agency for this project. The applicant submitted a SEPA checklist that was signed on September 10, 2020. On September 30, 2020, the NWCAA

issued a DNS for this project. On November 17, 2020, the DNS and SEPA Checklist were sent to the following SEPA contacts.

WA Department of Ecology SEPA Register separegister@ecy.wa.gov	Skagit County Planning and Development Services Brandon Black brandonb@co.skagit.wa.us

The SEPA checklist and DNS issued by the NWCAA is included in the NOC file.

GHG Disclosure and Mitigationon

No greenhouse gas emissions are associated with this project.

E. Permit History

Aspen Powercats has operated at a nearby facility under existing OAC 1221, issued September 24, 2015. The approved emission units include fiberglass chopper guns, gel coating guns and putty dispensing systems.

F. Basis for New Source Review Applicability

The following analysis is provided as a basis for reviewing each emission unit proposed under this project under Section 300 of the NWCAA Regulation. For new emission units the potential to emit is based on the estimated maximum production limited by space to store and work on boats. Emission factors are based on the Unified Emission Factors for Open Molding of Composites published October 13, 2009.

Aspen Powercats is not a major HAP source; however, as seen in Table 1, they do exceed the 2.0 tpy de minimis threshold for VOC according to NWCAA 300.4(D)(6). Potential to emit was based on the maximum VOCs in the gelcoats, resins and fairing compound from the Safety Data Sheets and the maximum number of boats laminated in one year provided by Aspen. Emissions calculations are located here.

Table 1: Emissions Analysis for NSR

Pollutant	Emissions (lb/hour)[a]	Emissions (ton/yr)	NWCAA 300.5 de minimis threshold (ton/yr)	Triggers NSR?
VOC	0.465	2.04	2.0	Yes
Pollutant	**Emissions (lb/hour)**	**Emissions (lb/24-hr)**	**WAC 173-460-150 de minimis threshold (lb/24-hr)**	**Triggers NSR?**
Styrene	0.247	5.92	65.0	No
Methyl methacrylate (MMA)	0.208	5.00	52.0	No
[a]Assumes a maximum production of 10 boats per year. Assumes maximum HAP content according to SDS.				

G. Criteria Air Pollutant Emissions and Impacts

The new emission unit associated with this project is a spray booth with exhaust filters for a new lamination line.

The permitted potential to emit calculations described in Table 2 are based on the maximum usage of materials provided by Aspen Powercats per boat as space is the limiting factor in boat production. These calculations do not take into account permit limits because Aspen Powercats does not meet any criteria requiring a limit.

Table 2: Criteria Air Pollutant Emissions

Pollutant	Emission Factor (lb/ton product)	Emissions (lb/hour)	Emissions (ton/yr)	PSD SER [a] (ton/yr)
VOC	Sum of HAPs	0.465	2.04	40
a. Prevention of Significant Deterioration (PSD) Significant Emission Rates for major sources in attainment or unclassified areas (40 CFR 52.21(b)(23)).				

Emissions are well below PSD significant thresholds and as there is no ambient standard for VOC and the area in not in non-attainment for ozone, there is no basis for modeling VOC impacts or setting a limit based on VOC emissions.

H. Toxic Air Pollutant Emissions and Impacts

The estimated potential toxic air pollutant (TAP) emissions at operating at the maximum rated capacity for fiberglass boat manufacturing are presented in Table 3. The table includes all TAP that are estimated to be emitted over the Small Quantity Emission Rate (SQER) of WAC 173-460. The estimated emissions of all TAPs are below the SQER.

Table 3: Toxic Air Pollutant Emissions and Ambient Impacts

Toxic Air Pollutant	Averaging period	Emissions (lb/averaging period)	SQER (lb/averaging period)	Ambient Impact if over SQER ($\mu g/m^3$)	ASIL ($\mu g/m^3$)
Styrene	24-hr	5.920	65.0	--	870
MMA	24-hr	5.000	52.0	--	700

Emission factors are based on the Unified Emission Factors for Open Molding of Composites, published October 13, 2009, using the maximum HAP content of the application product and the maximum boat production as determined by an inspection by Bob Uhrich and Shannon Logan on September 29, 2020. The emission calculations are saved to the file in an Excel workbook named "Aspen Lamination 2 potential to emit – NWCAA".

I. Prevention of Significant Deterioration (PSD) Program

Emission increases associated with this project were reviewed for Prevention of Significant Deterioration (PSD) Program applicability.

The facility is not an existing PSD major source.

This project is not over the PSD significance thresholds (including 75,000 tpy CO_2e).

J. Air Operating Permit (AOP) Program

After consideration of emission increases associated with this project, the Title V Air Operating Permit (AOP) program applicability for the entire source has been reviewed.

The Title V AOP thresholds are based on any of the following;

- Criteria air pollutants: PTE 100 tpy of any one pollutant.
- Hazardous air pollutants: PTE 10 tpy for any single HAP, or 25 ton/year of any combination of HAPs.
- Applicability of any federal NSPS or NESHAP regulation unless it is specifically exempt.

The facility is not a Title V air operating permit source because post project PTE remains below Title V applicability thresholds and criteria. The source is considered a "**natural minor**.

K. NWCAA Compliance Database (Stratus)

The NWCAA Stratus database has been updated to include the emission unit(s) approved by this OAC.

L. Confidential Business Information (CBI)

The NOC application does not contain any information deemed by the applicant to be CBI.

M. Applicable / Inapplicable Regulations

Relevant sections of NWCAA, state and federal regulations as they relate to the approved emission units listed in the OAC.

1. Northwest Clean Air Agency

- Section 342 contains operation and maintenance plan requirements.
- Section 451 contains generally applicable requirements for opacity.
- Section 455 contains generally applicable requirements for emissions of particulate matter.
- Section 530 contains generally nuisance requirements.
- Section 535 contains generally applicable odor control measures.

2. State

- WAC 173-400 contains requirements similar to those listed above.
- WAC 173-460 contains requirements for new sources of Toxic Air Pollutants.

3. Federal

- NSPS: There are no applicable NSPS regulations.
- NESHAP: There are no applicable area source NESHAPs; however, 40 CFR Part 63 Subpart VVVV addresses boat manufacturing at major HAP sources.
- NESHAP: 40 CFR Part 63 Subpart HHHHHH addresses surface coating at area sources and does not currently apply as the application material submitted by Aspen did not contain any of the triggering HAPs (Cr, Pb, Mn, Ni or Cd). If Aspen were to purchase any coatings with these HAPs, they may trigger this subpart.

N. Best Available Control Technology (BACT) Technology Review

1. This Project is Similar other NWCAA approved projects

- Northern Marin (OAC 936b)
- Westport Shipyard (OAC 855a)

- Triton Marin Industries (OAC 1079)
- NW Marine Industries (OAC 1206)

2. Case-By-Case BACT and T-BACT

Aspen provided no BACT or T-BACT analyses. In this case, because the toxic components are also VOCs, BACT and T-BACT are addressed together.

BACT and T-BACT conditions for this project, as in previous similar projects, are to use materials compliant with Table 2 of 40 CFR Part 63 Subpart VVVV and good work practice standards.

O. Basis for OAC Conditions

Condition 1: Odor provision ensures odors do not become a nuisance.
Condition 2: Discharge provision for proper dispersion of emissions.
Condition 3: Opacity limit as BACT for spray booths.
Condition 4: Ensure proper use of the enclosed booth during layup of lamination.
Condition 5: Efficiency of filters ensures good operating practices.
Condition 6: Pressure gauge installation as BACT for spray booth filters.
Condition 7: Maintenance to ensure work practice standards.
Condition 8: Ensure proper use of the enclosed booth during layup of lamination.
Condition 9: Lamination product limits as per NESHAP VVVV.
Condition 10: Recordkeeping provision consistent with permitted spray booths.
Condition 11: Work practice standards.

P. Timeline and Review

Timeline		**Date**
NOC Received		9/16/2020
NOC Incompleteness Determined (due 30 days from receipt)		9/21/2020
NOC Completeness Determined		9/29/2020
Final Decision Due (due 60 days from complete)		11/12/2020
Final OAC issued		11/17/2020
Review		**Date**
NWCAA Engineering	Christos Christoforou	9/30/2020
NWCAA Compliance	Agata McIntyre	10/5/2020
Source	Darin Dalry	10/5/2020

Q. Correspondence

9/16/2020 Dennis Pearson (email from)
Sent NOC application, SEPA checklist, PTE calcs

9/18/2020 Dennis Pearson (telecon)
Asked for tour to determine PTE of boat manufacturing, scheduled for 9/29

9/22/2020 Dennis Pearson (email to)
Requested additional data (application type, EFs, and SDS) to calculation emissions

9/23/2020 Dennis Pearson (email from)
Supplied revised emission calculations (updated styrene content), product SDS and application type.

9/29/2020 Site tour with Dennis Pearson (contact), Larry Graf (owner), and Bob Uhrich
Toured empty building, previously occupied by Yak Attack Kayaks. Lamination will be in south side of building, approximately 5,000 square feet with an exhaust fan rated at 6,000 cfm. The building will also be heated to speed up drying. They will use the building for the 40 foot boat manufacturing line with an estimated 2200 hours per boat for lamination and the potential to laminate 10 boats per year; although, they estimate completing 4 boats per year. They indicated they have drawings for a 52 foot line of boats that may be laminated in the building in the future.