Puget Sound Clean Air Agency

Notice of Construction No. **12598**

HEREBY ISSUES AN ORDER OF APPROVAL TO CONSTRUCT, INSTALL, OR ESTABLISH

Registration No. **30287**

Date

The addition of a third dry dock, an uplands paint/blast enclosure and operation of an existing ship repair facility. Operations at the facility include abrasive blasting, spray, brush, and roller coating, welding, grinding, pressure washing, hydroblasting, heavy lift barge vessel hauling and launching (dry dock). Emissions from dry abrasive blasting operations on the dry dock are controlled by dust collectors rated up 20,000 acfm. Emissions from spray coating operations conducted on each dry dock shall be controlled by a dry air filter system.

OWNER	INSTALLATION ADDRESS
Everett Ship Repair **2730 Federal Ave** **Everett, WA 98201**	**Everett Ship Repair** **2730 Federal Ave** **Everett, WA 98201**

THIS ORDER IS ISSUED SUBJECT TO THE FOLLOWING RESTRICTIONS AND 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.

Temporary Containment System Requirements

3. All abrasive blasting and all spray coating operations shall be conducted in a complete enclosure (e.g., tarpaulins, plastic barriers, shrink wrap, mobile enclosures, physical barriers or similar methods) that prevents the escape of abrasive blasting dust and paint overspray beyond the enclosure. Multiple enclosures may be used at the facility depending on the size of the operation. Each enclosure shall have overlapping or closed seams, and no rips, tears or gaps that may allow the abrasive blasting dust or paint overspray to escape. Each enclosure shall be designed such that the abrasive blasting or spray-coating work area is maintained under negative pressure.
4. Exhaust from abrasive blasting and spray coating in each temporary enclosure on Dock 1 (‘Faithful Servant’ dry dock) shall be routed through a vertical unobstructed stack with exhaust height of 65 feet.
5. Exhaust from abrasive blasting and spray coating in each temporary enclosure on Dry Dock 2 (‘Emerald Lifter’ dry dock) shall be routed through a vertical unobstructed stack with exhaust height of 38 feet.
6. Exhaust from abrasive blasting and spray coating in each temporary enclosure on Dry Dock 3 (‘Hercules’ dry dock) shall be routed through a vertical unobstructed stack with exhaust height of 75 feet.
7. Exhaust from abrasive blasting and spray coating for the upper land spray and abrasive blasting booths shall be routed through a vertical unobstructed stack with exhaust height of 35 feet.

Abrasive Blasting Operational Requirements

8. Abrasive blast grit usage at the facility shall be limited to 65,000 tons over any consecutive 12-month period. The owner or operator shall maintain records of the estimated usage of blast grit on a monthly

basis. Estimates can be made based on expended grit (single use media), hopper fills and refills (reusable grit), or based on total hours of operation. Each location in the facility shall be further limited:

a. Dry Dock 1: 14,625 tons abrasive blast grit over any consecutive 12-month period
b. Dry Dock 2: 14,625 tons abrasive blast grit over any consecutive 12-month period
c. Dry Dock 3: 29,250 tons abrasive blast grit over any consecutive 12-month period
d. Upper land abrasive blasing booth: 6,500 tons abrasive blast grit over any consecutive 12-month period

9. During the abrasive blasting operation, all exhaust from each temporary enclosure shall be exhausted to a dust collector with 100% capture equipped with filters that meet one of the following requirements:

   a. A system that meets a minimum of 99.97% particulate control efficiency for particles 0.05 µm and larger as determined using ASHRAE 52.2-2007 or equivalent; or

   b. A system that meets a minimum initial efficiency reporting value (MERV) of 16 as determined by ASHRAE Method 52.2-2007.

   The owner or operator shall maintain records provided by the filter manufacturer or supplier demonstrating compliance with one of the filter standards above.

10. There shall not be any visible emissions from the temporary enclosure, ductwork or dust collectors.

11. Each dust collector shall be equipped with a gauge to measure the pressure drop across the dust collector. The acceptable pressure drop range shall be clearly marked on or near the gauge and documented in the facility Operation and Maintenance Plan.

12. At least once each day when abrasive blasting operations occur in the temporary enclosure, the owner or operator shall inspect the system to verify the following conditions are met:

    a. The enclosure has overlapping seams and is free of rips, tears or gaps that may allow the particulate matter to escape;

    b. There are no visible emissions from the enclosure, ductwork and dust;

    c. There is no particulate fallout in the area around the dust collector; and

    d. The pressure drop measurement gauge is operating and the pressure drop across the dust collector system is within the operating range.

    If requirements described above are not met, the owner or operator shall take corrective action or discontinue abrasive blasting operations until corrective action is taken. The owner or operator shall document inspection findings and any corrective action taken.

13. The abrasive blasting material shall not contain manganese in amounts greater than 1.35 percent by weight; arsenic, cadmium, or lead in amounts greater than 0.1 percent by weight; or total chromium in amounts greater than 0.08 percent by weight. Stainless steel blasting material shall not be used. The owner or operator shall maintain copies of Safety Data Sheets (SDS), Environmental Data Sheets (EDS), Product Data Sheets (PDS), manufacturer specific formulation data or analytical data to demonstrate compliance with this requirement.

14. Dust and used abrasive shall be cleaned up daily or as soon as possible after blasting has finished (whichever is sooner).

15. Emissions from stockpiles of new and/or spent abrasive material shall be minimized. Measures shall at least include covering stockpiled material, wetting stockpiled material, or keeping stockpiled material in closed containers.

Spray Coating Operation Requirements

16. The owner or operator shall not apply more than 58,000 gallon/year of VOC containing materials within

any consecutive 12-month period. Orders or purchase transactions for material used, along with the associated chemical constituent compositions (VOC content), may be used in lieu of usage information.

17. The coatings applied or used must not exceed the following VOC content (minus water and exempt compounds) limits:
    a. 3.50 lbs of VOCs per gallon of heat resistant or high-gloss coating, as applied or used;
    b. 3.30 lbs of VOCs per gallon of antifouling coating, as applied or used;
    c. 3.92 lbs of VOC per gallon of organic zinc coating, as applied or used; and
    d. 2.90 lbs of VOCs per gallon of any other coating not specified above, as applied or used.
18. The owner or operator is prohibited from spray applying coatings that contain compounds of chromium, lead, manganese, nickel, or cadmium.
19. All coatings shall comply with the following Volatile Organic Hazardous Air Pollutant (VOHAP) limits. The owner or operator shall maintain records identifying each coating used (similar batches may be grouped together), the appropriate coating category, the applicable VOHAP limit, and the VOHAP content of the specific coating:
    e. 3.3 lbs of VOHAP per gallon of antifouling coating applied;
    f. 3.5 lbs of VOHAP per gallon of heat resistant or high-gloss coating; and
    g. 2.9 lbs of VOHAP per gallon of any other coating not specified above.
20. Ethylbenzene emissions must not exceed 1,600 pounds during any consecutive 12-month period. Orders or purchase transactions for material used in the spray-coating operations and the chemical constituent compositions (ethylbenzene content) may be used to determine ethylbenzene emissions. The ethylbenzene content of coatings not used and disposed of as waste may be deducted from the order transactions to determine the ethylbenzene emissions. For the purposes of this order, unused coating disposed of as waste shall be any unused coating in original container or unused mixed coating in a storage container disposed of as waste which had never been transferred to equipment for spray or hand application. Ethyl benzene usage shall be limited per location in the plant as follows:
    a. Dry Dock 1: 360 lbs of ethyl benzene over any consecutive 12-month period
    b. Dry Dock 2: 360 lbs of ethyl benzene over any consecutive 12-month period
    c. Dry Dock 3: 720 lbs of ethyl benzene over any consecutive 12-month period
    d. Upper land spray booth: 160 lbs of ethyl benzene over any consecutive 12-month period
21. Xylene emissions must not exceed 12,000 pounds during any consecutive 12-month period. Orders or purchase transactions for material used in the spray-coating operations and the chemical constituent compositions (xylene content) may be used to determine xylene emissions. The xylene content of coatings not used and disposed of as waste may be deducted from the order transactions to determine the xylene emissions. For the purposes of this order, unused coating disposed of as waste shall be any unused coating in original container or unused mixed coating in a storage container disposed of as waste which had never been transferred to equipment for spray or hand application. Xylene usage shall be limited per location in the plant as follows:
    a. Dry Dock 1: 2,700 lbs of xylene over any consecutive 12-month period
    b. Dry Dock 2: 2,700 lbs of xylene over any consecutive 12-month period
    c. Dry Dock 3: 5,400 lbs of xylene over any consecutive 12-month period
    d. Upper land spray booth: 1,200 lbs of xylene over any consecutive 12-month period
22. During spray coating operations, all exhaust from each temporary enclosure shall be exhausted with 100% capture through a dry filter system that meets one of the following standards:
    a. A minimum initial overspray arrestance of 98 percent. Overspray arrestance must be determined

using the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Method 52.1 procedure and substituting the synthetic test dust feed with high solids bake enamel delivered at a rate of at least 135 grams per minute from a conventional (non-HVLP) air-atomized spray gun operating at 40 pounds per square inch (psi) air pressure with a minimum air flow rate across the filter of 150 feet per minute. A system that complies with 40 CFR Part 63, Subpart HHHHHH meets this requirement.

b. A system that meets a minimum initial efficiency reporting value (MERV) of 13 as determined by ASHRAE Method 52.2. The dust collector used for abrasive blasting operation meets this requirement.

c. A system that meets a minimum initial filtration efficiency of 98 percent over the particle diameter range from 0.3 to 10 microns. The particle size dependent filtration efficiencies must be determined using either Environmental Protection Agency (EPA) Method 319 or an Agency approved method.

Documentation demonstrating compliance with one of the filter standards listed above shall be available for inspection upon request.

23. A gauge (manometer or magnehelic) shall be installed and maintained that measures pressure drop across each dry filter system or portable dust collector. The acceptable pressure drop range shall be clearly marked on or near the gauge and documented in the facility Operation and Maintenance Plan.

24. All spray application of material must be applied with an air-assisted airless spray gun, electrostatic applicator, or high-volume low-pressure (HVLP) spray gun. Airless spray guns may be used for high viscosity high solids coatings for which airless application is recommended by the manufacturer. Alternative spray technology must meet a minimum transfer efficiency of 65 percent. The procedure used to demonstrate a spray technology's transfer efficiency must be equivalent to South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989" and "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002." A plan describing the test procedure must be developed and submitted to the Agency 30 days prior to conducting any spray technology transfer efficiency test.

25. At least once each day when spray coating operations occur in the temporary containment system, the owner or operator shall inspect the system to verify the following conditions are met:

    a. The pressure drop across the exhaust filter system is within the acceptable range;

    b. The enclosure is free of rips, tears or gaps that may allow overspray to leave the enclosure; and

    c. There is no evidence of paint overspray from previous activities.

    If requirements described above are not met, the owner or operator shall take corrective action. The owner or operator shall only start spray coating operations after the requirements described above are met. The owner or operator shall document inspection findings and all corrective action taken.

26. Best management practices shall be used in all coating operations, including the collection of VOC containing materials used for cleanup of equipment to minimize evaporation to the atmosphere, keeping containers used for the storage and disposal of VOC containing materials closed except when these containers are being cleaned or when materials are being added, mixed or removed; and storing solvent rags and paper for disposal in closed containers.

Recordkeeping and Reporting Requirements

27. The following records shall be kept onsite and up-to-date, and be made readily available to Agency personnel upon request:

    a. The VOC (minus water and exempt compounds) content in lb/gallon of each material used and applied in order to demonstrate compliance with Conditions 16, 17, and 19. Safety Data Sheets (SDS), Environmental Data Sheets (EDS), Product Data Sheets (PDS) or manufacturer specific

formulation data may be used to document the contents.

b. Copies of SDS, EDS, PDS or manufacturer specific formulation data to demonstrate compliance with Condition 17, 18, 19, 20 and 21.

c. Documentation to demonstrate compliance with the abrasive blasting filter requirements of Condition 9.

d. Documentation to demonstrate compliance with the spray coating filter requirements of Condition 22.

e. Documentation to demonstrate compliance with the spray gun requirements of Condition 24.

f. The Operation and Maintenance (O&M) plan. The O&M plan shall be developed and implemented per Agency's Regulation I. The O&M plan shall include filter maintenance, filter inspection procedures, and corrective action procedures for when the pressure drop falls outside of acceptable range.

28. The following records shall be kept onsite, updated within 30 days at the end of each month for at least two years from the date of generation, and be made readily available to Agency personnel upon request:

a. Documentation of the total amount in gallons of all VOC-containing (minus water and exempt compounds) materials applied and used per month and during any consecutive 12-month period in order to demonstrate compliance with Condition 16. Order and purchase records may be used to estimate usage.
b. Documentation of the total amount in tons of all abrasive blasting media used per month and during any consecutive 12-month period in order to demonstrate compliance with Condition 8.
c. Documentation of the total amount of ethylbenzene applied or used in pounds for each month and and during any consecutive 12-month period in order to demonstrate compliance with Condition 20. Order and purchase records may be used to estimate usage.
d. Documentation of the total amount of xylene applied or used in pounds for each month and during any consecutive 12-month period in order to demonstrate compliance with Condition 21. Order and purchase records may be used to estimate usage.
e. A written log documenting inspection findings and corrective action as required by Conditions 12 and 25.
f. Documentation verifying any corrective action taken to maintain compliance with this Order of Approval, if any, and the date and time it was conducted.

29. The Agency shall be notified, in writing, within 30 days of discovering an exceedance of any limitations identified in Conditions 8, 16, 20, or 21.

30. Upon approval, this permit shall cancel and supersede NOC 12245 approved 1/20/2023.

Order of Approval for NC No. 12598

APPEAL RIGHTS

Pursuant to Puget Sound Clean Air Agency's Regulation I, Section 3.17 and RCW 43.21B.310, this Order may be appealed to the Pollution Control Hearings Board (PCHB). To appeal to the PCHB, a written notice of appeal must be filed with the PCHB and a copy served upon Puget Sound Clean Air Agency within 30 days of the date the applicant receives this Order.

Carl Slimp	John Dawson
Reviewing Engineer	Engineering Manager