

**Northwest Clean Air Agency (NWCAA) hereby issues
Order of Approval to Construct (OAC) #1014**

Project Summary: Modifications to the Ershigs, Inc. (Ershigs) C Street reinforced plastics composites manufacturing facility to allow permanent operation and to expand operations, to include the following equipment and/or operations:

- Closed (vacuum-assisted resin infusion) molding operations (existing under temporary OAC 932; revisited in this OAC to assure use of BACT);
- Open (mechanical, spray layup with vapor suppression) molding operations (existing under temporary OAC 932; revisited in this OAC to assure use of BACT);
- Open (manual, hand layup) molding operations (3); and
- Use of an additional solvent (Interlux©) for spot cleaning of molds.

The C-Street facility operates in conjunction with the Ershigs facility located at 742 Marine Drive in Bellingham and is considered subject to the Ershigs Air Operating Permit, as well as being applicable to Subpart WWWW of 40 CFR 63, the National Emissions Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production.

This OAC supersedes and replaces OAC 932.

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FACILITY LOCATION

1001 C Street, Building J, Bellingham, Washington

Note that in addition to other applicable rules and regulations, this project is subject to applicable portions of the following **National Emission Standards for Hazardous Air Pollutants / Maximum Achievable Control Technology Standards**

- Subpart A – General Provisions
- Subpart WWWW – National Emission Standards for Reinforced Plastic Composites Manufacturing Facilities (Note: Existing source provisions)

As authorized by Northwest Clean Air Agency Regulation Section 300, this order is issued subject to the following restrictions and conditions:

1. Resins used for closed (vacuum-assisted resin infusion) molding operations shall not contain more than 52.0 percent by weight hazardous air pollutants (HAP), including but not limited to styrene or methyl methacrylate (MMA).
2. Emissions of organic HAP emissions from open molding operations consisting of mechanical application of corrosion-resistant and/or high strength (CR/HS) resin shall not exceed 102 pound per ton of neat resin plus and neat gel coat plus on a 12-month rolling average as determined by the equations in 40 CFR 63.5810(c).
3. Emissions of organic HAP emissions from open molding operations consisting of manual, hand-layup application of corrosion-resistant and/or high strength (CR/HS) resin shall not exceed 111 pound per ton of neat resin plus and neat gel coat plus on a 12-month rolling average as determined by the equations in 40 CFR 63.5810(c).
4. Emissions of styrene from the C-Street facility shall not exceed 146 pounds per calendar day. Compliance with this requirement shall be based on emission factors contained in Table 1 of 40 CFR 63 Subpart WWWW, and may be demonstrated by either of the following methods:
 - a. Ershigs shall be deemed to be in compliance with this requirement on each day that the C-Street facility applies no more than each of the following:
 - i. 5,000 pounds of resin for closed (vacuum-assisted resin infusion) molding operations;
 - ii. 1,200 pounds of resin for open (mechanical, spray layup with vapor suppression) molding operations; and
 - iii. 1,000 pounds of resin for open (manual, hand layup) molding operations.
 - b. Ershigs shall compute pounds of styrene emitted for each calendar day by inputting actual daily values for resin usage, styrene content, and vapor suppressant content for each operation into the appropriate emission factors in Table 1 of 40 CFR 63 Subpart WWWW. Calculated styrene emissions for each calendar day shall be available no later than 30 days after the end of each month during which the resins were used.
5. Ershigs shall use no more than 14.0 gallons of DAA solvent per calendar day.
6. Ershigs shall use no more than 8 gallons of Interlux© solvent per calendar day.
7. Ershigs shall record styrene content, quantity and type of molding operation of all resins used in order to demonstrate compliance with Conditions 1, 2 and 3 of this OAC.
8. Ershigs shall record quantities and types of resins applied at each resin operation, DAA solvent, and Interlux© solvent consumed, and, for any materials for which Ershigs wishes to subtract from daily consumption, quantities of those materials removed from the facility as waste, including invoices or bills of lading, on a daily basis in order to demonstrate compliance with Conditions 4, 5 and 6 of this OAC.
9. Enclosure requirements:

- a. All resin application and grinding or cutting operations shall be done within enclosed area(s) that are equipped with fans and ductwork that exhaust all emissions through vertical stacks;
 - b. All area(s) that are equipped for spray-application or grinding or cutting of composites shall be equipped with panel filters designed to control overspray from resin application and gauges to measure the pressure drop across the exhaust filters. The acceptable range for each filtration panel shall be determined by filter manufacturer recommendation, and shall be posted on or near the pressure drop gauge; and
 - c. Ershigs shall survey the C-Street facility on an annual basis to verify compliance with permanent total enclosure criteria in EPA Method 204. Each survey shall include taking actual measurements of all gaps and openings in the building (natural draft openings) and measurement of flowrate of the building ventilation fan(s). Data, calculations and results shall be recorded.
10. Doors and windows of the C-Street facility shall remain closed except during ingress and egress of personnel or materials.
 11. Odors from the facility shall not result in a nuisance at or beyond the property boundary as determined by the NWCAA staff.
 12. Outdoor layup, grinding, or cutting of composites is prohibited.
 13. Equipment designed for minimizing evaporation must be employed for collecting solvents used for cleanup of spray equipment, including resin lines and solvent flushed through spray equipment and lines.
 14. All containers for storage or disposal of VOC containing materials shall be kept closed except when being cleaned or when materials are being added.
 15. Ershigs shall perform and record inspections, as described below, no less frequently than once each day for each spray lay-up booth or area that is operating.
 - a. Check dry exhaust filters for full coverage (no gaps or openings during operation);
 - b. Check for proper fan operation;
 - c. Check resin application area and spray coating room exhaust filters pressure drop gauge readings for operation in the acceptable range; and
 - d. Ensure that closed containers are used for storage or disposal of VOC-containing materials and wastes.
 16. Ershigs shall correct any problems identified during scheduled inspections or at any other time, as soon as possible but not later than the start of the next work shift after identification or shut down the unit or activity until it can be repaired. A non-operative pressure drop gauge may be taken as prima facie evidence that a spray lay-up booth or area is operating out of compliance with this Condition.

17. Records required by Conditions in this OAC shall be maintained at either the C-Street Facility or the Marine Drive Facility for no less than five years from date of generation and shall be available for inspection by NWCAA personnel.
18. A written notification confirming startup date of any new equipment shall be submitted to NWCAA within 10 business days of initial startup of that equipment.

Christos Christoforou, P.E.
Permitting Engineer

Mark Buford, P.E.
Reviewing Engineer

Mark Asmundson
Director