*****Advanced Approvals*****

Lasco Bathware, Yelm Washington (Fiberglass Reinforced Plastic Bathware Industry)

Process Description:
Emissions Monitoring Technique:
Emissions Calculation:
Pollutant Control Technique:

Process Description: Lasco's Advance Approvals for certain types of new construction, modifications, alterations, and replacements are covered in general in Section 2. Standard Terms and Conditions, and more specifically in Section 9. Flexibility Provisions and Alternate Operating Scenarios in their Air Operating Permit. Most of the flexible permit provisions involve styrene, VOC, or particulate matter emissions.

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2. STANDARD TERMS AND CONDITIONS

2.13 Changes not Requiring Permit Revision/Off Permit Changes. The permittee may make the changes described in WAC 173-401-722 and WAC 173-401-724 without revising this permit, provided that the changes satisfy the criteria set forth in those sections.

9. FLEXIBILITY PROVISIONS AND ALTERNATIVE OPERATING SCENARIOS

NOTICE OF CONSTRUCTION APPROVAL: In accordance with Article 7 of Regulation 1, WAC 173-400-110 through 114, and WAC173-460, the permittee has received approval by ORCAA to construct new emission units and to make modifications, alterations, and replacements within Building 1 and Building 2 as defined in Table 9.2, provided the conditions identified in below are met. This approval to construct shall remain in effect unless the permittee receives written notification from ORCAA that the permittee's Pollution Prevention (P2) program does not adequately meet the criteria set forth below. Upon such notification, no subsequent actions subject to new source review shall be initiated by the permittee, unless required approvals and permits in accordance with Article 7 of Regulation 1, WAC 173-400-110 through 114, and WAC 173-460 are first secured, or until written notification from ORCAA that the permittee's P2 program is acceptable. Upon completion of any project approved through this condition, the requirements identified in 9.1(g) through 9.1(p) below shall constitute the **Conditions of Approval** and shall become enforceable requirements with respect to the new, modified, replaced or altered emissions unit. Any violation of conditions 9.1(g) through 9.1(p) shall be enforceable from the date the violation originated, but no earlier than the date the permittee first initiated construction, modification, alteration, or replacement under the approval provided by this condition.

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d) Stationary Source Designation. For the purposes of this condition, building 1 (SS1) and building 2 (SS2) shall be considered as separate stationary sources, and spray booths within SS1 and SS2 shall be considered as emission control technology.

e) Modifications. For purposes of this condition, a modification or alteration is any physical change in, or change in the method of operation of, SS1 or SS2 that increases the maximum VOC or styrene emission rates of SS1 or SS2 as measured in pounds of VOC or styrene during an 8-hour production period. The following shall not be considered to be changes in the method of operation:

i) Routine maintenance and repair of existing equipment that does not increase production capacity of SS1 and SS2.

ii) An increase in the production rate of SS1 and SS2 if that increase can be accomplished without a capital expenditure.

iii) An increase in the hours of operation.

iv) Use of an alternative raw material, varying filler content, or varying styrene content, if prior to the effective date of this permit, SS1 or SS2 was designed to accommodate such alternatives.

f) Approved Actions. Approval under this condition is limited to the installations, modifications, alterations, and replacements of emission units, production units and control devices within SS1 and SS2 which are defined in Table 9.2 below:

TABLE 9.2 ACTIONS TRIGGERING NSR APPROVED

NSR CATEGORY	SS EMISSIONS INCREASE NECESSARY TO TRIGGER NSR?	DESCRIPTION OF ACTIONS ELIGIBLE FOR APPROVAL
New Emissions Units	No	1. Adding new FRP production lines located in either building 1 or building 2, provided that existing air pollution control technology is utilized, and the overall efficiency of VOC and particulate control will remain the same or will improve as a result of the addition.
Stationary Source/Emission Unit Modifications	Yes	1. Re-configuring existing equipment within, or between SS1 and SS2, such as, but not limited to, moving a production line segment from one line to the other or splitting the production line into two parallel lines. 2. Increasing or decreasing the length or capacity of a production line. 3. Adding, removing, or replacing spray guns within spray booths. 4. Changing the conveyor system of a production line. 5. Re-tooling the production line to make a different product. 6. Changing a product grinding and finishing station.
Emission Unit Replacements	No	1. Replacing segments of a production line provided that the fixed capital cost of the new components does not exceed 50 percent of the fixed capital cost that would be required for construction of a comparable source. 2. Replacing a product grinding and finishing station.
Control Technology Replacements	No	1. Replacing the air handling system and all spray booths in a production line.
Control Technology Substantial Alterations	No	1. Changing spray booth stack height. 2. Changing spray booth air flowrate. 3. Changing the geometry or orientation of the spray

		booth. 4. Changing type of filters used. 5. Adding or removing a spray booth.

g) BACT. Best available control technology (BACT) shall be utilized for all installations of new emission units, and modifications and replacements of existing emissions units approved under this condition as follows:

i) The permittee shall implement a P2 program which meets the requirements of conditions 9.1(a) through 9.1(c).

ii) New, modified or replaced spray booths shall have sufficient exhaust air flow to capture to maintain constant negative pressure at both ends of the booth, and shall be equipped with suitable filters capable of at least 60% capture of PM_{10}.

iii)

iv) Height of exhaust stacks from ground level for new spray booths shall be at least 1.3 times the height of the highest point of the building roof line from ground level.

v) High-volume-low-pressure (HVLP), airless, air-assisted airless, or electrostatic spray equipment shall be used in new, modified or replaced production lines. For touch-up and repair, a hand-held, air-atomized spray gun which has a container for resin as part of the gun may be used.

vi) New, modified or replaced product grinding and finishing stations that exhaust to the outside shall be controlled with a dust collection device capable of achieving at least 98% control of 10 microns or larger air borne dust.

vii) For resin as applied in new, modified or replaced production lines, the weight loss due to VOC emissions shall not exceed sixty (60) grams per square meter of exposed surface area during resin polymerization as determined by Method 9 of the SCAQMD (Method 309 also referred to as "can lid test").

viii) Percent by weight of styrene monomer in resin and gel coat as applied used in new, modified or replaced production lines shall not exceed the following limits:

TABLE 9.3 MATERIAL SPECIFICATIONS

Polyester Resin Materials	Monomer Limit Material as Applied (by weight percent)
General Purpose Polyester Resin: Materials that are not corrosion resistant, fire retardant, high strength, vapor suppressed, or gel coats.	35
Corrosion-Resistant: Polyester resin materials used to make products for corrosion resistant applications such as tooling, fuel or chemical tanks and boat hulls.	48
Fire-Retardant: Polyester resin materials used to make products that are resistant to flame or fire.	42
High-Strength: Polyester resin materials which have casting tensile strength of 10,000 psi or more and which are used for manufacturing high performance products like boats and skis.	48
Clear Gel Coat: A clear, polyester resin surface coating that provides a cosmetic enhancement and improves resistance to degradation from exposure to the elements.	50

Pigmented Gel Coat: A pigmented, polyester resin surface coating that provides a cosmetic enhancement and improves resistance to degradation from exposure to the elements.	45

h) Replacement and Alteration of Pollution Control Equipment. Actions which are replacements or substantial alterations of air pollution control equipment shall not result in degradation of existing control efficiency for VOC, styrene or particulate matter emissions.

i) No Net Emissions Increase. Emission increases resulting from actions approved under this condition shall be offset by emission reductions achieved through pollution prevention and other reductions in use of VOC containing materials such that the combined emissions from SS1 and SS2 shall remain at or below 3419 pounds of VOC per calendar day. The permittee shall verify compliance with this condition on a monthly basis by computing the combined daily VOC emissions from SS1 and SS2 for each day of operation during the calendar month in accordance with conditions 6.9 and 6.10.

j) No New Air Toxics. No new toxic air pollutant is emitted as a result of the action;

k) No New Applicable Requirements. No new applicable requirement(s) is triggered by the action.

l) No Change In Monitoring. No change to the monitoring, record keeping, or reporting requirements in this permit is needed to ensure compliance with all terms and conditions of the permit.

m) Request for an Extension. This approval to construct shall remain in effect provided:

i) The permittee submits, on an annual basis after permit issuance along with the annual compliance certification, a request for extension of the approval to construct under this condition;

ii) Control technology requirements of this condition constitute BACT for the approved new installations, replacements and modifications identified in Table 9.2;

iii) The conditions of this permit assure the approved new installations, replacements, and modifications comply with all applicable requirements;

iv) ORCAA approves the permittee's request for an extension based on a finding that the requirements of this condition constitute BACT and assure compliance with all applicable requirements for the approved new installations, replacements and modifications identified in Table 9.2.

n) Monitoring. In addition to the monitoring requirements from section 6 of this permit, the following shall be monitored at the frequencies specified:

i) Weight loss due to VOC emissions during polymerization of lamination resin as applied, in terms of grams per square meter of exposed surface area shall be determined for each incoming delivery of resin based on Method 309 of SCAQMD. For purposes of this condition, resin as applied shall mean the specific composition of resin and fillers actually used in the lamination process. For purposes of this condition, if no VOC containing materials are added to incoming materials as applied, the manufacturers testing shall be acceptable.

o) Records. The records identified in (i) through (iii) below shall be maintained in addition to the standard record keeping requirements specified in condition 7 of this permit.

i) Record of any installations or modifications made under approval by this condition. Records shall include technical descriptions of equipment installed or modified, and other information which is necessary to compute air pollutant emissions or impacts.

ii) Records documenting potential to emit with respect to the new, modified, altered or replaced emission unit or process.

iii) Record of approved emission factors and source test reports which support those factors.

p) Reporting. In addition to the standard reporting requirements in section 8 of this permit, the permittee shall submit the following reports and information to ORCAA within the time frames specified:

i) Semi-annually, and along with monitoring report submittal, a description of all installations, modifications, replacements, and alterations within SS1 and SS2 that were made during the reporting period.

ii) Along with the annual Compliance Certification, an **Annual P2 Progress Report** which documents P2 techniques implemented, findings regarding investigation of new applicable P2 techniques, progress towards meeting prescribed P2 goals, and other accomplishments that occurred during the previous 12 month period.

iii) Within 15 days from completion of any construction approved under this condition, a notice stating the date construction was completed and the date operation will commence.

Emissions Monitoring Technique: See Section 6 “Compliance Monitoring Conditions” of the complete Lasco permit; nothing unique concerning flexible permit provisions.
Emissions Calculation: See Section 6.9 “Emission Calculations”.

6.9 Emission Calculations. For purposes of monitoring compliance with daily and annual VOC emission limitations in this permit, VOC emissions shall be determined as follows:

a) Calculations - * * * * *

b) Emission Factors - Emission factors used for determining compliance with emission limitations in this permit shall be approved by ORCAA as follows:

i) Emission factors shall be based on measured pollutant concentrations from an ORCAA approved source test.

ii) Test methods shall conform to EPA Method 18 (40 CFR Part 60, App. A, Method 18, including Section 7.4 alternative NIOSH procedure- NIOSH Method 1501), or an equivalent method as approved by ORCAA.

iii) At least 30 days prior to any scheduled source test date, the permittee shall submit a source test plan to ORCAA which identifies proposed test methods, operational conditions, and other details regarding the proposed source test.

iv) No later than 60 days after conducting the source test, the permittee shall forward to ORCAA test results and calculations supporting the proposed emission factor(s).

v) Upon written notification of approval from ORCAA, approved emission factors shall be used to quantify emissions from the source test date forward.

Pollutant Control Technique: See Section 5 “Emission Unit Specific Requirements” for the regenerative thermal oxidizer.

5. EMISSION UNIT SPECIFIC REQUIREMENTS

REQUIREMENTS SPECIFIC TO EU1 and EU2

#	Applicable Requirement Citation	Applicable Requirement Description (for information purposes only)	Reference Method (if applicable)	Additional Monitoring Provisions Pursuant to WAC 173-401-615
5.1	00NOC011 Conditions 2, 3, and 5 4/13/2001	**RTO Emission Reduction Credit.**An RTO destruction efficiency of at least 96% may only be credited when emissions pass through the RTO and the RTO combustion chamber temperature is at least 1600ºF.	None	6.8
5.2	00NOC011 Condition 4 4/13/2001	**RTO Combustion Chamber Temperature Monitoring.**The RTO combustion chamber temperature shall be recorded continuously on a strip chart recorder or electronically by the RTO control unit.	None	6.8
5.3	00NOC011 Condition 8 4/13/2001	**RTO Opacity Standard.**Visual emissions from the RTO shall not exceed ten (10) percent opacity as determined by EPA Method 9.	EPA Method 9	6.1 6.2 6.3
5.4	00NOC011 Condition 9 4/13/2001	**RTO Operation and Maintenance Plan.**An Operation and Maintenance (O&M) plan for the RTO shall be devised and available to the operator.	NA	None