



October 30, 2024

Joe Spencer, Production Manager
Fiber Glass Systems, L.P. – Ridgefield Facility
5985 S. 6th Way
Ridgefield, WA 98642

RE: Final Air Discharge Permit for Installation of a Natural Gas-Fired Air Handling Unit

Dear Mr. Spencer:

A final determination to issue Air Discharge Permit (ADP) 24-3665 has been completed for ADP Application CL-3259 pursuant to Section 400-110(4) of the General Regulations for Air Pollution Sources of the Southwest Clean Air Agency (SWCAA). Public notice for ADP Application CL-3259 was published in the permit section of SWCAA's website on January 31, 2024. SWCAA did not receive a request for a public comment period in response to the public notice and has concluded that significant public interest does not exist for this determination. Therefore, a public comment period will not be provided for this permitting action. Electronic copies of ADP 24-3665 and the associated Technical Support Document are available for public review in the "Recent Air Discharge Permits" section under the "Air Permits" link on SWCAA's website (<http://www.swcleanair.gov>). Original copies are enclosed for your files.

ADP 24-3665 may be appealed directly to the Pollution Control Hearings Board (PCHB) within thirty (30) days of receipt as provided in Revised Code of Washington (RCW) 43.21B.

If you have any questions or comments or desire additional information, please contact me or Abraham Apfel at (360) 574-3058, extension 124.

Sincerely,

Uri Papish
Executive Director

UP: aa

Enclosure: Technical Support Document and Air Discharge Permit 24-3665





**AIR DISCHARGE PERMIT
24-3665**

Issued: October 30, 2024

**Fiber Glass Systems, L.P. – Ridgefield
5985 S. 6th Way, Ridgefield, WA 98642**

SWCAA ID – 0150

REVIEWED BY:

Clinton Lamoreaux

Clinton Lamoreaux, P.E., Chief Engineer



APPROVED BY:

Uri Papish

Uri Papish, Executive Director

TABLE OF CONTENTS

1. Equipment/Activity Identification 1

2. Permit Requirements..... 1

 Emission Limits 2

 Operating Limits and Requirements 6

 Monitoring and Recordkeeping Requirements 9

 Emission Monitoring and Testing Requirements 12

 Reporting Requirements 12

3. General Provisions 14

1. Equipment/Activity Identification

ID No.	Generating Equipment/Activity	Control Equipment
Lamination Shop		
1	Hand Lay-up, Resin	Fabric Filtration
2	Hand Lay-up, Gel Coat	Fabric Filtration
3	Assembly Area/RTM (Stack #1)	Fabric Filtration
4	Spray Lay-up/Chop Gun #1 (Stack #2)	Fabric Filtration
5	Spray Lay-up/Chop Gun #2 (Stack #2)	Fabric Filtration
6	Spray Lay-up/Chop Gun #3 (Stack #8)	Fabric Filtration
7	Molding Area, Gel Coat (Stack #3)	Fabric Filtration
8	Tooling Area, Gel Coat (Stack #4)	Fabric Filtration
9	RTM/VARTM Area (Stack #5)	Fabric Filtration
10	Spray Lay-up/Gel Coat Gun #1 (Stack #6)	Fabric Filtration
11	Spray Lay-up/Gel Coat Gun #1 (Stack #7)	Fabric Filtration
12	Infusion Area, Resin (Stack #9)	Fabric Filtration
13	Weather-Rite Make-up Air Handling Units (2 units)	Ultralow Sulfur Fuel (Natural Gas)
Industrial Assembly Area		
14	Filament Winder #1 (Stack #11/#12)	Fabric Filtration
15	Filament Winder #2 (Stack #11/#12)	Fabric Filtration
16	Grainger Dayton Space Heaters, 2 units (Stack #10)	Ultralow Sulfur Fuel (Natural Gas)
17	Lynbar Post-Cure Oven	Ultralow Sulfur Fuel (Natural Gas)
18	Greenheck Make-up Air Handling Unit	Ultralow Sulfur Fuel (Natural Gas)

2. Permit Requirements

The following tables detail the specific requirements of this Air Discharge Permit (ADP). In addition to the requirements listed below, equipment at this facility may be subject to other federal, state, and local regulations. The requirement number is identified in the left-hand column. The text of the permit requirement is contained in the middle column. The emission unit, equipment, or activity to which the permit requirement applies is listed in the right-hand column.

ADP 24-3665 supersedes ADP 21-3494 in its entirety.

Emission Limits

Req. No.	Emission Limits	Equipment/ Activity ID No.																		
1.	<p>Combined emissions from the facility must not exceed any of the following:</p> <table border="1" data-bbox="279 394 1274 800"> <thead> <tr> <th data-bbox="279 394 799 432">Pollutants</th> <th data-bbox="799 394 1274 432">Emission Limits</th> </tr> </thead> <tbody> <tr> <td data-bbox="279 432 799 478">Nitrogen Oxides (NO_x)</td> <td data-bbox="799 432 1274 478">3.88 tpy</td> </tr> <tr> <td data-bbox="279 478 799 525">Carbon Monoxide (CO)</td> <td data-bbox="799 478 1274 525">4.32 tpy</td> </tr> <tr> <td data-bbox="279 525 799 571">Volatile Organic Compounds (VOC)</td> <td data-bbox="799 525 1274 571">45.20 tpy</td> </tr> <tr> <td data-bbox="279 571 799 617">Particulate Matter, PM₁₀, total</td> <td data-bbox="799 571 1274 617">2.53 tpy</td> </tr> <tr> <td data-bbox="279 617 799 663">Particulate Matter, PM_{2.5}, total</td> <td data-bbox="799 617 1274 663">2.53 tpy</td> </tr> <tr> <td data-bbox="279 663 799 709">Sulfur Dioxide (SO₂)</td> <td data-bbox="799 663 1274 709">0.074 tpy</td> </tr> <tr> <td data-bbox="279 709 799 756">acetone [67-64-1]</td> <td data-bbox="799 709 1274 756">11.05 tpy</td> </tr> <tr> <td data-bbox="279 756 799 800">styrene [100-42-5]</td> <td data-bbox="799 756 1274 800">33.10 tpy</td> </tr> </tbody> </table> <p>The long-term emission limits are 12-month rolling sums calculated consistent with Section 6 of the Technical Support Document (TSD) for this ADP.</p>	Pollutants	Emission Limits	Nitrogen Oxides (NO _x)	3.88 tpy	Carbon Monoxide (CO)	4.32 tpy	Volatile Organic Compounds (VOC)	45.20 tpy	Particulate Matter, PM ₁₀ , total	2.53 tpy	Particulate Matter, PM _{2.5} , total	2.53 tpy	Sulfur Dioxide (SO ₂)	0.074 tpy	acetone [67-64-1]	11.05 tpy	styrene [100-42-5]	33.10 tpy	Facility-wide
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styrene [100-42-5]	33.10 tpy																			
2.	<p>Combined emissions from all fiberglass reinforced products manufacture in the Lamination Shop and Trim and Assembly area, combined must not exceed any of the following:</p> <table border="1" data-bbox="279 1066 1274 1339"> <thead> <tr> <th data-bbox="279 1066 799 1104">Pollutants</th> <th data-bbox="799 1066 1274 1104">Emission Limits</th> </tr> </thead> <tbody> <tr> <td data-bbox="279 1104 799 1150">Volatile Organic Compounds (VOC)</td> <td data-bbox="799 1104 1274 1150">45.00 tpy</td> </tr> <tr> <td data-bbox="279 1150 799 1197">Particulate Matter, PM₁₀, total</td> <td data-bbox="799 1150 1274 1197">2.30 tpy</td> </tr> <tr> <td data-bbox="279 1197 799 1243">Particulate Matter, PM_{2.5}, total</td> <td data-bbox="799 1197 1274 1243">2.30 tpy</td> </tr> <tr> <td data-bbox="279 1243 799 1289">acetone [67-64-1]</td> <td data-bbox="799 1243 1274 1289">11.05 tpy</td> </tr> <tr> <td data-bbox="279 1289 799 1339">styrene [100-42-5]</td> <td data-bbox="799 1289 1274 1339">33.10 tpy</td> </tr> </tbody> </table> <p>The long-term emission limits are 12-month rolling sums calculated consistent with Section 6 of the TSD for this ADP.</p>	Pollutants	Emission Limits	Volatile Organic Compounds (VOC)	45.00 tpy	Particulate Matter, PM ₁₀ , total	2.30 tpy	Particulate Matter, PM _{2.5} , total	2.30 tpy	acetone [67-64-1]	11.05 tpy	styrene [100-42-5]	33.10 tpy	1–12, 14, and 15						
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Req. No.	Emission Limits	Equipment/ Activity ID No.														
3.	<p>Emissions from the two Weather-Rite Make-up Air Handling Units, combined, must not exceed any of the following:</p> <table border="1" data-bbox="280 394 1274 653"> <thead> <tr> <th>Pollutants</th> <th>Emission Limits</th> </tr> </thead> <tbody> <tr> <td>Nitrogen Oxides (NO_x)</td> <td>3.34 tpy</td> </tr> <tr> <td>Carbon Monoxide (CO)</td> <td>2.82 tpy</td> </tr> <tr> <td>Volatile Organic Compounds (VOC)</td> <td>0.20 tpy</td> </tr> <tr> <td>Particulate Matter, PM₁₀, total</td> <td>0.26 tpy</td> </tr> <tr> <td>Particulate Matter, PM_{2.5}, total</td> <td>0.26 tpy</td> </tr> <tr> <td>Sulfur Dioxide (SO₂)</td> <td>0.020 tpy</td> </tr> </tbody> </table> <p>The long-term emission limits are 12-month rolling sums calculated consistent with Section 6 of the TSD for this ADP.</p>	Pollutants	Emission Limits	Nitrogen Oxides (NO _x)	3.34 tpy	Carbon Monoxide (CO)	2.82 tpy	Volatile Organic Compounds (VOC)	0.20 tpy	Particulate Matter, PM ₁₀ , total	0.26 tpy	Particulate Matter, PM _{2.5} , total	0.26 tpy	Sulfur Dioxide (SO ₂)	0.020 tpy	13
Pollutants	Emission Limits															
Nitrogen Oxides (NO _x)	3.34 tpy															
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Sulfur Dioxide (SO ₂)	0.020 tpy															
4.	<p>Emissions from the two Grainger Dayton Space Heaters, combined, must not exceed any of the following:</p> <table border="1" data-bbox="280 888 1274 1146"> <thead> <tr> <th>Pollutants</th> <th>Emission Limits</th> </tr> </thead> <tbody> <tr> <td>Nitrogen Oxides (NO_x)</td> <td>0.16 tpy</td> </tr> <tr> <td>Carbon Monoxide (CO)</td> <td>0.098 tpy</td> </tr> <tr> <td>Volatile Organic Compounds (VOC)</td> <td>0.0078 tpy</td> </tr> <tr> <td>Particulate Matter, PM₁₀, total</td> <td>0.00086 tpy</td> </tr> <tr> <td>Particulate Matter, PM_{2.5}, total</td> <td>0.00086 tpy</td> </tr> <tr> <td>Sulfur Dioxide (SO₂)</td> <td>0.011 tpy</td> </tr> </tbody> </table> <p>The long-term emission limits are 12-month rolling sums calculated consistent with Section 6 of the TSD for this ADP.</p>	Pollutants	Emission Limits	Nitrogen Oxides (NO _x)	0.16 tpy	Carbon Monoxide (CO)	0.098 tpy	Volatile Organic Compounds (VOC)	0.0078 tpy	Particulate Matter, PM ₁₀ , total	0.00086 tpy	Particulate Matter, PM _{2.5} , total	0.00086 tpy	Sulfur Dioxide (SO ₂)	0.011 tpy	16
Pollutants	Emission Limits															
Nitrogen Oxides (NO _x)	0.16 tpy															
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Particulate Matter, PM _{2.5} , total	0.00086 tpy															
Sulfur Dioxide (SO ₂)	0.011 tpy															
5.	<p>Emissions from the Lynbar Post-Cure Oven, must not exceed any of the following:</p> <table border="1" data-bbox="280 1381 1274 1656"> <thead> <tr> <th>Pollutants</th> <th>Emission Limits</th> </tr> </thead> <tbody> <tr> <td>Nitrogen Oxides (NO_x)</td> <td>0.20 tpy</td> </tr> <tr> <td>Carbon Monoxide (CO)</td> <td>0.15 tpy</td> </tr> <tr> <td>Volatile Organic Compounds (VOC)</td> <td>0.0090 tpy</td> </tr> <tr> <td>Particulate Matter, PM₁₀, total</td> <td>0.013 tpy</td> </tr> <tr> <td>Particulate Matter, PM_{2.5}, total</td> <td>0.013 tpy</td> </tr> <tr> <td>Sulfur Dioxide (SO₂)</td> <td>0.0010 tpy</td> </tr> </tbody> </table> <p>The long-term emission limits are 12-month rolling sums calculated consistent with Section 6 of the TSD for this ADP.</p>	Pollutants	Emission Limits	Nitrogen Oxides (NO _x)	0.20 tpy	Carbon Monoxide (CO)	0.15 tpy	Volatile Organic Compounds (VOC)	0.0090 tpy	Particulate Matter, PM ₁₀ , total	0.013 tpy	Particulate Matter, PM _{2.5} , total	0.013 tpy	Sulfur Dioxide (SO ₂)	0.0010 tpy	17
Pollutants	Emission Limits															
Nitrogen Oxides (NO _x)	0.20 tpy															
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Req. No.	Emission Limits	Equipment/ Activity ID No.														
6.	<p>Emissions from the Greenheck Make-up Air handling Unit, must not exceed any of the following:</p> <table border="1" data-bbox="279 394 1274 709"> <thead> <tr> <th data-bbox="279 394 786 432">Pollutants</th> <th data-bbox="786 394 1274 432">Emission Limits</th> </tr> </thead> <tbody> <tr> <td data-bbox="279 432 786 480">Nitrogen Oxides (NO_x)</td> <td data-bbox="786 432 1274 480">0.21 tpy</td> </tr> <tr> <td data-bbox="279 480 786 529">Carbon Monoxide (CO)</td> <td data-bbox="786 480 1274 529">1.26 tpy</td> </tr> <tr> <td data-bbox="279 529 786 577">Volatile Organic Compounds (VOC)</td> <td data-bbox="786 529 1274 577">0.037 tpy</td> </tr> <tr> <td data-bbox="279 577 786 625">Particulate Matter, PM₁₀, total</td> <td data-bbox="786 577 1274 625">0.052 tpy</td> </tr> <tr> <td data-bbox="279 625 786 674">Particulate Matter, PM_{2.5}, total</td> <td data-bbox="786 625 1274 674">0.052 tpy</td> </tr> <tr> <td data-bbox="279 674 786 709">Sulfur Dioxide (SO₂)</td> <td data-bbox="786 674 1274 709">0.034 tpy</td> </tr> </tbody> </table> <p>The long-term emission limits are 12-month rolling sums calculated consistent with Section 6 of the TSD for this ADP.</p>	Pollutants	Emission Limits	Nitrogen Oxides (NO _x)	0.21 tpy	Carbon Monoxide (CO)	1.26 tpy	Volatile Organic Compounds (VOC)	0.037 tpy	Particulate Matter, PM ₁₀ , total	0.052 tpy	Particulate Matter, PM _{2.5} , total	0.052 tpy	Sulfur Dioxide (SO ₂)	0.034 tpy	18
Pollutants	Emission Limits															
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Sulfur Dioxide (SO ₂)	0.034 tpy															

Req. No.	Emission Limits	Equipment/ Activity ID No.										
7.	<p>The Permittee must choose a compliance option based on the operation, application, and process type for resins and gel coats and must meet the appropriate organic HAP emission limits specified below. The options and organic HAP emission limits are:</p> <table border="1" data-bbox="280 464 1274 1241"> <thead> <tr> <th data-bbox="280 464 992 546">Option</th> <th data-bbox="992 464 1274 546">Organic HAP Emission Limit</th> </tr> </thead> <tbody> <tr> <td data-bbox="280 546 992 699">(a) Option 1, Demonstrate that an individual resin or gel coat, as applied, meets the applicable organic HAP emission limit per 40 CFR 63.5810(a), in effect March 20, 2020</td> <td data-bbox="992 546 1274 699">Appendix A Table 2</td> </tr> <tr> <td data-bbox="280 699 992 894">(b) Option 2, Demonstrate that, on average, for each combination of operation type and resin application method or gel coat type meets the individual organic HAP emission limit per 40 CFR 63.5810(b), in effect March 20, 2020</td> <td data-bbox="992 699 1274 894">Appendix A Table 2</td> </tr> <tr> <td data-bbox="280 894 992 1089">(c) Option 3, Demonstrate compliance with a weighted average organic HAP emission limit per 40 CFR 63.5810(c), in effect March 20, 2020</td> <td data-bbox="992 894 1274 1089">Calculate Weighted Average Emission Limit using Appendix A Table 2</td> </tr> <tr> <td data-bbox="280 1089 992 1241">(d) Option 4, Meet the organic HAP emission limit for one application method, using the same resins for all application methods of that resin type per 40 CFR 63.5810(d), in effect March 20, 2020</td> <td data-bbox="992 1089 1274 1241">Appendix A Table 3</td> </tr> </tbody> </table> <p>If the Permittee chooses to use the Option 4 for the same resin across different open molding operations, then:</p> <p>(a) The Permittee must first demonstrate compliance with an applicable organic HAP emission limit using compliance Options 1, 2, or 3; and</p> <p>(b) The resin, as applied, must meet the calculated organic HAP emission limit.</p>	Option	Organic HAP Emission Limit	(a) Option 1, Demonstrate that an individual resin or gel coat, as applied, meets the applicable organic HAP emission limit per 40 CFR 63.5810(a), in effect March 20, 2020	Appendix A Table 2	(b) Option 2, Demonstrate that, on average, for each combination of operation type and resin application method or gel coat type meets the individual organic HAP emission limit per 40 CFR 63.5810(b), in effect March 20, 2020	Appendix A Table 2	(c) Option 3, Demonstrate compliance with a weighted average organic HAP emission limit per 40 CFR 63.5810(c), in effect March 20, 2020	Calculate Weighted Average Emission Limit using Appendix A Table 2	(d) Option 4, Meet the organic HAP emission limit for one application method, using the same resins for all application methods of that resin type per 40 CFR 63.5810(d), in effect March 20, 2020	Appendix A Table 3	1–12, 14, and 15
Option	Organic HAP Emission Limit											
(a) Option 1, Demonstrate that an individual resin or gel coat, as applied, meets the applicable organic HAP emission limit per 40 CFR 63.5810(a), in effect March 20, 2020	Appendix A Table 2											
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(c) Option 3, Demonstrate compliance with a weighted average organic HAP emission limit per 40 CFR 63.5810(c), in effect March 20, 2020	Calculate Weighted Average Emission Limit using Appendix A Table 2											
(d) Option 4, Meet the organic HAP emission limit for one application method, using the same resins for all application methods of that resin type per 40 CFR 63.5810(d), in effect March 20, 2020	Appendix A Table 3											
8.	<p>For purposes of determining compliance with an organic HAP emission limit, the Permittee must use the emission equations as specified in Appendix A Table 1 as applicable. In all cases, HAP is defined as organic HAP that is present at 0.1% by mass or more present in the resin or gel coat. If the organic HAP content is provided by the material supplier or manufacturer as a range, the Permittee must use the upper limit of the range for determining compliance.</p>	1–12, 14, and 15										

Req. No.	Emission Limits	Equipment/ Activity ID No.
9.	Except for styrene, emissions of TAPs must not exceed: (a) The respective Small Quantity Emission Rate (SQER) or demonstrate meeting the Acceptable Source Impact Level (ASIL) provided in the August 21, 1998, version of WAC 173-460 on an individual pollutant basis; or (b) The VOC limit specified in Conditions 1 or 2.	Facility-wide
10.	Visible emissions from any emission unit must not exceed zero percent (0%) opacity for more than three (3) minutes in any 1-hour period as determined in accordance with SWCAA Method 9.	1-12, 14-16

Operating Limits and Requirements

Req. No.	Operating Limits and Requirements	Equipment/ Activity ID No.
11.	Reasonable precautions must be taken at all times to prevent and minimize fugitive emissions from plant operations.	Facility-wide
12.	Operations that cause or contribute to a nuisance odor must use recognized good practice and procedures to reduce these odors to a reasonable minimum.	Facility-wide
13.	Emission units and activities identified in this ADP must be maintained and operated in total and continuous conformity with the conditions identified in this ADP. SWCAA reserves the right to take any and all appropriate action to maintain the conditions of this ADP, including directing the facility to cease operations until corrective action can be completed.	1-18
14.	Each pollution control device must be operated whenever the processing equipment served by that air pollution control device is in operation. Control devices must be operated and maintained in accordance with the manufacturer's specifications. Furthermore, air pollution control devices must be operated in a manner that minimizes emissions.	1-18
15.	The Lamination Shop stacks must discharge vertically and at a minimum height of 44 ft above ground level. Each stack must have a diameter of no more than the following: (a) Stacks #1, #2, #3, #6, #7, #8, and #9: 42 in. (b) Stack #4: 34 in. (c) Stack #5: 29 in. Any device that obstructs or prevents vertical discharge is prohibited.	1-12
16.	The Grainger Dayton Space Heaters common stack (Stack #10) must extend above the roof level. Any device that obstructs or prevents vertical discharge is prohibited.	16

Req. No.	Operating Limits and Requirements	Equipment/ Activity ID No.
17.	Each filament winding exhaust system stack (Stacks #11 and #12) must discharge vertically at a minimum height of 50 ft 6 in. above ground level and have a minimum flow rate of 16,000 acfm. Each stack must have a diameter of no more than 36 in. Any device that obstructs or prevents vertical discharge is prohibited.	14 and 15
18.	All surface coating must be performed inside the Lamination Shop, unless otherwise specified by SWCAA.	Facility-wide
19.	All surface coating must be performed with high transfer efficiency methods and equipment, such as high-volume low-pressure or air-assisted airless spray guns, unless otherwise approved by SWCAA. High transfer efficiency equipment must be operated in accordance with manufacturer's specifications.	Facility-wide
20.	The air cap pressure for each HVLP spray gun must not exceed 10 psig measured directly by an air cap pressure gauge or indirectly by setting the compressor to a pressure that the gun manufacturer has guaranteed will meet 10 psig at the cap.	Facility-wide
21.	Spray application of coatings containing chromium, lead, manganese, nickel, or cadmium compounds at a concentration greater than 0.1% by weight is prohibited.	Facility-wide
22.	The Permittee must use good workplace practices, including, but not limited to, sealed cleaning agent containers, sealed resin and gel coat containers, high transfer efficiency resin application techniques, minimized pressure settings, proper spray gun set-up procedures, annual work practices training combined with new hire orientation and gun operator certification.	1-12, 14, and 15
23.	The Permittee must keep containers that store VOC-containing materials closed or covered at all times, except during the addition or removal of materials. Open containers for storage, transfer or disposal of VOC containing materials are prohibited. In addition, all VOC-containing materials that are used to clean or flush surface coating equipment, spray lines, tools, or other equipment, must be collected into closed containers.	Facility-wide
24.	All windows and doors to the production areas of the facility must be kept closed during surface coating, spray or hand lay-up of resin and gel coat, closed molding, filament winding, and surface finishing except when moving products into or out of the production areas.	1-12, 14, and 15
25.	All spray lay-up of resin must be performed using non-atomized, high transfer efficiency methods and equipment. High transfer efficiency equipment must be operated in accordance with manufacturer's specifications.	1-12, 14, and 15
26.	All spray gel coat must be performed using high transfer efficiency methods and equipment. High transfer efficiency equipment must be operated in accordance with manufacturer's specifications.	1-12, 14, and 15
27.	A sufficient quantity of fan parts, replacement filters, filter media, or cartridges, as applicable, must be kept on site and readily available. Replacements of filters, filter media and cartridges must be performed at the manufacturer's specified intervals or more frequent, as necessary.	1-12, 14, and 15

Req. No.	Operating Limits and Requirements	Equipment/ Activity ID No.
28.	The Permittee must use closed mold techniques for fiberglass reinforced product manufacture in lieu of open mold techniques or vapor-suppressed resins and gel coats as much as is feasibly possible for existing and new products. If closed molding or vapor-suppression is not feasible, then the Permittee must document the reasons why it is not used.	Facility-wide
29.	The use of chemical strippers and paint removal products containing methylene chloride are prohibited.	Facility-wide
30.	The Frees ventilation system and filament winding exhaust system must be equipped with exhaust filters demonstrated to achieve a minimum of 97% capture efficiency of overspray. When multiple layers of filters are used, the combined capture efficiency must achieve a minimum of 97%. Filtration media must be secured with no gaps at all times.	1-12
31.	The Frees ventilation system must be: (a) Always activated when spray lay-up or gel coat application is being performed, or; (b) Activated for a minimum of ten (10) minutes in each clock hour in which hand lay-up is being performed unless an aggregate of one (1) gallon or less of resin or gel coat is used during the clock hour. The Frees Ventilation System may be deactivated when only closed molding is being performed.	1-12
32.	The filament winding exhaust system must be: (a) Always activated when filament winding, spray lay-up, or gel coat application is being performed, or; (b) Activated for a minimum of ten (10) minutes in each clock hour in which hand lay-up is being performed unless an aggregate of one (1) gallon or less of resin or gel coat is used during the clock hour.	14 and 15
33.	The Permittee must not use more than 100 gal (378 L) of organic HAP-containing coatings over any 12-month rolling period. If more than 100 gal of organic HAP-containing coatings is anticipated, the Permittee must provide written notice to SWCAA and comply with all applicable requirements in 40 CFR 63 Subpart PPPP (40 CFR §63.4480).	Facility-wide
34.	During closed molding using compression or injection molding, the Permittee must uncover, unwrap, or expose only one charge per mold cycle per compression or injection molding machine. For machines with multiple molds, one charge means sufficient material to fill all molds for one cycle.	Facility-wide
35.	The Permittee must not use organic HAP-containing cleaning solvents, except: (a) Styrene may be used as a cleaner in a closed system; and (b) Organic HAP containing cleaners may be used to clean cured resin or cured gel coat from application equipment. Application equipment includes any equipment that directly contacts resins or gel coats.	1-12, 14, and 15

Req. No.	Operating Limits and Requirements	Equipment/ Activity ID No.
36.	When mixing resins or gel coats in containers larger than five (5) gallons, the Permittee must: <ul style="list-style-type: none"> (a) Use mixer covers with no visible gaps. Gaps of up to 1 in. are allowed around mixer shafts and any required instrumentation; (b) Keep the mixer covers closed when actual mixing is occurring, except when adding materials or changing cover on the mixing vessel; and (c) Close any mixer vents when actual mixing is occurring. Venting is allowed during addition or materials or as necessary prior to adding materials or opening the cover for safety. 	1-12, 14, and 15
37.	In the event of a complaint being received by the Permittee or SWCAA, the Odor Management Plan must be followed as soon as the complaint is received. SWCAA may require additional measures consistent with SWCAA 400-040(4) if the plan fails to adequately address odor impacts. Implementation of the corrective actions identified in the Odor Management Plan does not shield the Permittee from enforcement actions by SWCAA.	Facility-wide
38.	The Weather-Rite Air Handling Units, the Grainger Dayton space heaters, the Lynbar Post-Cure Oven, and the Greenheck Air Handling Unit must only be fired on natural gas.	13, 16, 17, and 18
39.	The differential pressure of air supply into the Greenheck Air handling Unit must be operated between 0.625 and 0.675 iwc.	18

Monitoring and Recordkeeping Requirements

Req. No.	Monitoring and Recordkeeping Requirements	Equipment/ Activity ID No.
40.	Except for data logged by a computerized data acquisition system, each record required by this ADP must include the date and the name of the person making the record entry, at minimum. If a control device or process is not operating, a record must be made to that effect.	Facility-wide
41.	All records required by this ADP must be kept for a minimum period of no less than five (5) years and must be maintained in a form readily available for inspection by SWCAA representatives.	Facility-wide
42.	Excess emissions and upset conditions must be recorded for each occurrence.	Facility-wide
43.	For VOC, HAP, or TAP-containing products used by the Permittee, purchase receipts, Safety Data Sheets, and Technical Data Sheets must be maintained in a form readily available for inspection.	Facility-wide
44.	All documentation related to the receipt of complaints and the implementation of the Odor Management Plan.	Facility-wide

Req. No.	Monitoring and Recordkeeping Requirements	Equipment/ Activity ID No.
45.	<p>The following must be recorded in an operation and maintenance log:</p> <ul style="list-style-type: none"> (a) Any upset condition or excess emission that may result in the emission of air pollutants for each occurrence; (b) The amount and type of hazardous waste disposed must be recorded once per month; (c) Each period during which an emission control device (e.g., Frees Ventilation System, filter banks) is not operating due to maintenance, repair, filter replacement, or any other activity that may affect the emission of air pollutants must be recorded for each occurrence; (d) The operation of the Frees system must be recorded as follows: <ul style="list-style-type: none"> (1) The date and time the Frees system was activated or deactivated; and (2) If only hand lay-up is being performed in the Lamination Shop, a record must be made as to the total amount of resin or gel coat used; or (3) If only closed molding is being performed in the Lamination Shop, a record must be made to that effect; and (e) The operation of the Filament Winder filter bank must be recorded as follows: <ul style="list-style-type: none"> (1) The date and time the system was activated or deactivated; and (2) If only hand lay-up is being performed in the filament winding area, a record must be made as to the total amount of resin or gel coat used; or 	Facility-wide
46.	<p>Spray coating operations must be monitored and recorded as follows:</p> <ul style="list-style-type: none"> (a) Spray coating material consumption recorded monthly; (b) The quantity and type of hazardous waste disposal recorded monthly; and (c) Filter changes and maintenance activities recorded for each occurrence. 	1-12
47.	<p>The following information must be recorded for each filter bank in the Frees system and the filament winding exhaust system:</p> <ul style="list-style-type: none"> (a) Differential pressure across the exhaust filtration media record at least once per calendar week during operation. If the unit is not operated during a calendar week, a record must be made to that effect; (b) Manufacturer's technical sheets demonstrating the particulate capture efficiency; and (c) Filter changes and maintenance activities must be recorded for each occurrence. 	1-12
48.	<p>All documentation related to the feasibility to use open mold techniques for fiberglass reinforced product manufacture, in lieu of closed mold techniques or related to why vapor-suppressed resins and gel coats are not feasible.</p>	1-12, 14, and 15
49.	<p>Whenever resins or gel coats are mixed, the Permittee must visually inspect the mixer, covers, and vents per Condition 36. A record of the inspections and any repairs made must be maintained.</p>	1-12, 14, and 15

Req. No.	Monitoring and Recordkeeping Requirements	Equipment/ Activity ID No.
50.	<p>For each resin and gel coat, the Permittee must maintain the following:</p> <ul style="list-style-type: none"> (a) The Safety Data Sheet and Technical Data Sheet for the resin or gel coat; (b) The total HAP content, by weight, if different from that determined or listed on the Safety or Technical Data Sheets; (c) The operation, application type, and process stream as specified in Appendix A Table 1 and Table 2 or Table 3; (d) If the resin or gel coat is vapor-suppressed: <ul style="list-style-type: none"> (1) The Safety Data Sheet and Technical Data Sheet for the vapor suppressant; and (2) The vapor suppressant effectiveness determined in accordance with 40 CFR 63 Subpart WWWW Appendix A, including any supporting information; (e) All data, assumptions, and calculations used to determine compliance with the option chosen for Condition 7; (f) The total monthly usage in gallons or pounds; and (g) The 12-month rolling sum usage in gallons or pounds. 	1-12, 14, and 15
51.	<p>At least once per calendar month, a brief qualitative observation for the purpose of identifying the presence of visible emissions from emission units subject to an opacity limit must be performed during daylight hours while the unit is under normal operation (i.e., not in startup, shut down, or upset). If no visible emissions are observed, then a record of the observations must be made, and no further action is necessary.</p>	1-12, 14, 15, 16, and 18
52.	<p>If any visible emissions are observed during a qualitative observation of emission units, then the Permittee must:</p> <ul style="list-style-type: none"> (a) Take corrective action until no visible emissions are observed; or (b) Quantify visible emissions using SWCAA Method 9 or another method approved, in advance by SWCAA. <p>All observations and corrective actions taken must be recorded. If visible emissions cannot be reduced to zero or be verified to comply with the visible emissions limit within one (1) business day of discovery, then the Permittee must report the excess emissions, make a record, and take corrective actions until the unit can be demonstrated to comply with the limit.</p>	1-12, 14, 15, 16, and 18
53.	<p>Records pertaining to the implementation, response, and resolution to any complaint in which the Odor Management Plan is implemented must be maintained.</p>	Facility-wide
54.	<p>The differential pressure of air supply for the Greenheck Air Handling Unit must be measured at least twice each calendar year. If the differential pressure is outside of manufacturing specification, corrective action must be taken to ensure the burner is operating properly. Records of the initial and final pressure, and any corrective actions, adjustments, and testing, must be kept.</p>	18

Req. No.	Monitoring and Recordkeeping Requirements	Equipment/ Activity ID No.
55.	The Greenheck Air Handling Unit must be inspected at least once each calendar year to ensure the unit is operating according to manufacturer's specifications. This includes maintenance requirements specified by the manufacturer. Records of the inspection, including verification of manufacturer's specifications must be kept.	18

Emission Monitoring and Testing Requirements

There are no emission monitoring or testing requirements for the approved equipment cited in this ADP.

Reporting Requirements

Req. No.	Reporting Requirements	Equipment/ Activity ID No.
56.	Upset conditions must be reported to SWCAA as soon as possible after discovery. Outside of normal business hours, upset conditions may be reported by email, fax, or leaving a telephone message with SWCAA.	Facility-wide
57.	Excess emissions must be reported to SWCAA as follows: <ul style="list-style-type: none"> (a) As soon as possible, but no later than twelve (12) hours after discovery for emissions that represent a potential threat to human health or safety; (b) As soon as possible, but no later than forty-eight (48) hours after discovery for emissions which the Permittee wishes to claim as unavoidable pursuant to SWCAA 400-107(1); and (c) No later than thirty (30) calendar days after the end of the month of discovery for all other excess emissions. 	Facility-wide
58.	Deviations from permit conditions must be reported no later than thirty (30) days after the end of the month during which the deviation is discovered.	Facility-wide
59.	All air quality related complaints received by the Permittee must be reported to SWCAA within three (3) calendar days of receipt. Complaint reports must include the date and time of the complaint, the name and contact information (if available) for the complainant, the nature of the complaint, and any actions taken by the Permittee to address the complaint.	Facility-wide

Req. No.	Reporting Requirements	Equipment/ Activity ID No.
60.	<p>A written semiannual, January 1 through June 30 and July 1 through December 31, compliance report must be submitted to SWCAA by July 31 and January 31, respectively. The report must contain the following, at a minimum:</p> <ul style="list-style-type: none"> (a) Company name and address; (b) The date of the report and the beginning and ending dates of the reporting period; (c) A summary of any deviations that were previously reported and those that were not reported, including the date and nature of the deviation, including deviations related to permit conditions, emission limits, and work practice standards (Conditions 23, 34, 35, and 36); (d) A statement of the compliance option being used to demonstrate compliance with Condition 7. If the facility has changed the compliance option, state the new compliance option, the date the report was sent to SWCAA and the date the new compliance option was implemented; (e) A demonstration of compliance for each operation, application, and process stream for each resin for each month during the semiannual period, including any data, assumptions, and calculations used to determine compliance; (f) If there were no deviations during the reporting period, the Permittee must include a statement to that effect; and (g) A statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the report. 	Facility-wide
61.	<p>A written annual, January through December, emissions inventory report must be submitted to SWCAA by March 15 of each year for the previous calendar year in accordance with SWCAA 400-105(1). Each report must contain, at a minimum, the following information:</p> <ul style="list-style-type: none"> (a) The sum of emissions of NO_x, SO₂, CO, VOC, PM, PM₁₀, PM_{2.5}, TAPs, and HAPs; (b) The quantity of products used or consumed (e.g., resins, gel coats, coatings, and solvents) containing VOC, TAPs and HAPs; (c) The VOC, TAP, and HAP content of products; (d) The location that the products were used or consumed (e.g., Lamination Shop, Mold Fabrication Shop, etc.); (e) If the product is a resin or gel coat used in fiberglass reinforced product manufacture, the operation type, application method, and process stream (Appendix A, Tables 1 and 2) for each resin and gel coat; (f) The type and quantity of hazardous waste disposed or removed off-site; (g) The monthly amounts of natural gas used in the Weather-Rite Space Heaters, the Grainger Dayton space heaters, the Lynbar Post-Cure Oven, and the Greenheck Air Handling Unit, each, or a weighted value for each unit based on a facility-wide natural gas meter; and (h) The number of hours that the facility operated. 	Facility-wide

Req. No.	Reporting Requirements	Equipment/ Activity ID No.
62.	<p>A written report must be submitted to SWCAA at least seven (7) business days prior to the use of any new product that contains VOCs, TAPs, or HAPs. The report must contain the following:</p> <ul style="list-style-type: none"> (a) A description of the type of product (e.g., resin, gel coat, coating, solvent, etc.), the Safety Data Sheets and Technical Data Sheets, and the location where the product will be used; (b) The date by which the Permittee intends to begin use of the product; (c) The amount (gallons or pounds) expected to be used; (d) A quantification of the change in VOC, HAP and TAP emissions from the use of the product; (e) If the product is a resin or gel coat used in fiberglass reinforced product manufacture, the operation type, application method, and process stream (Appendix A, Tables 1 and 2) for each resin and gel coat; and (f) A summary of any applicable requirement that would apply as a result of the product. <p>If the new product would cause any emission limit to be exceeded, the Permittee must submit an ADP application to SWCAA to request a permit revision to this Permit. The Permittee must not begin using the new product until a revised permit is issued. Any new product that is only to be used for testing purposes with a quantity of five (5) gallons or less of usage does not need to be reported to SWCAA prior to use. However, the use of the product must be noted in the annual emissions inventory report.</p>	Facility-wide
63.	<p>Prior to making any change in compliance option used to demonstrate compliance with the HAP emission limits listed in Condition 7, the Permittee must submit to SWCAA, in writing:</p> <ul style="list-style-type: none"> (a) The date when the proposed compliance option change will occur; (b) A demonstration that the facility is in compliance with the current option; and (c) A demonstration that the facility will be in compliance with the proposed change in compliance option. If changing to an option that is based on the 12-month rolling average, a demonstration of compliance based on the average on the previous 12 months of data calculated using the proposed compliance option. 	1-12, 14, and 15

3. General Provisions

Req. No.	General Provisions
A.	<p>For the purpose of ensuring compliance with this ADP, duly authorized representatives of the Southwest Clean Air Agency (SWCAA) must be permitted access to the Permittee's premises and the facilities being constructed, owned, operated and/or maintained by the Permittee for the purpose of inspecting said facilities. These inspections are required to determine the status of compliance with this ADP and applicable regulations and to perform or require such tests as may be deemed necessary.</p>

Req. No.	General Provisions
B.	The provisions, terms, and conditions of this ADP bind the Permittee, its officers, directors, agents, servants, employees, successors and assigns, and all persons, firms, and corporations acting under or for the Permittee.
C.	The requirements of this ADP survive any transfer of ownership of the source or any portion thereof.
D.	This ADP must be posted conspicuously at or be readily available near the source.
E.	This ADP will be invalidated, in whole or in part, if construction or installation of any new or modified equipment has not commenced within eighteen (18) months from date of issuance, if construction is discontinued for a period of eighteen (18) months or more without prior SWCAA approval, or if construction is not completed within a reasonable time
F.	This ADP does not supersede requirements of other Agencies with jurisdiction and further, this ADP does not relieve the Permittee of any requirements of any other governmental Agency. In addition to this ADP, the Permittee may be required to obtain permits or approvals from other agencies with jurisdiction.
G.	Compliance with the terms of this ADP does not relieve the Permittee from the responsibility of compliance with SWCAA General Regulations for Air Pollution Sources, previously issued Regulatory Orders, RCW 70A.15, Title 173 WAC or any other applicable emission control requirements, nor from the resulting liabilities and/or legal remedies for failure to comply.
H.	If any provision of this ADP is held to be invalid, all unaffected provisions of the ADP will remain in effect and be enforceable.
I.	No change in this ADP will be made or be effective except as may be specifically set forth by written order of SWCAA upon written application by the Permittee for the relief sought.
J.	SWCAA may, in accordance with RCW 70A.15 impose such conditions as are reasonably necessary to assure the maintenance of compliance with the terms of this ADP, the Washington Clean Air Act, and the applicable rules and regulations adopted under the Washington Clean Air Act.

APPENDIX A
Tables for Use in Determining Compliance with the Organic HAP Emission Limits

TABLE 1
Equations To Calculate Organic HAP Emissions Factors for Specific
Open Molding Process Streams

(excerpts from 40 CFR 63 Subpart WWWW, Table 1, in effect March 20, 2020)

Application Method and Process Stream	HAP Criteria	Organic HAP Emission Factor Equation (lb HAP/ton resin or gel coat) ^{a, b, c}
(1) Open Molding,		
(a) Manual Resin Application		
(i) Non-vapor suppressed resin	< 33%	$0.126 \times \%HAP \times 2000$
	$\geq 33\%$	$[(0.286 \times \%HAP) - 0.0529] \times 2000$
(ii) Vapor suppressed resin	< 33%	$0.126 \times \%HAP \times 2000 \times [1 - (0.5 \times \%VSE)]$
	$\geq 33\%$	$[(0.286 \times \%HAP) - 0.0529] \times 2000 \times [1 - (0.5 \times \%VSE)]$
(iii) Vacuum bagging/closed mold with roll out	< 33%	$0.126 \times \%HAP \times 2000 \times 0.8$
	$\geq 33\%$	$[(0.286 \times \%HAP) - 0.0529] \times 2000 \times 0.8$
(iv) Vacuum bagging/closed mold without roll out	< 33%	$0.126 \times \%HAP \times 2000 \times 0.5$
	$\geq 33\%$	$[(0.286 \times \%HAP) - 0.0529] \times 2000 \times 0.5$
(b) Atomized Mechanical Resin Application		
(i) Non-vapor suppressed resin	< 33%	$0.169 \times \%HAP \times 2000$
	$\geq 33\%$	$[(0.714 \times \%HAP) - 0.18] \times 2000$
(ii) Vapor suppressed resin	< 33%	$0.169 \times \%HAP \times [1 - (0.45 \times \%VSE)] \times 2000$
	$\geq 33\%$	$[(0.714 \times \%HAP) - 0.18] \times 2000 \times [1 - (0.45 \times \%VSE)]$
(iii) Vacuum bagging/closed mold with roll out	< 33%	$0.169 \times \%HAP \times 2000 \times 0.85$
	$\geq 33\%$	$[(0.714 \times \%HAP) - 0.18] \times 2000 \times 0.85$
(iv) Vacuum bagging/closed mold without roll out	< 33%	$0.169 \times \%HAP \times 2000 \times 0.55$
	$\geq 33\%$	$[(0.714 \times \%HAP) - 0.18] \times 0.55 \times 2000$
(c) Non-atomized Mechanical Resin Application		
(i) Non-vapor suppressed resin	< 33%	$0.107 \times \%HAP \times 2000$
	$\geq 33\%$	$[(0.157 \times \%HAP) - 0.0165] \times 2000$
(ii) Vapor suppressed resin	< 33%	$0.107 \times \%HAP \times 2000 \times [1 - (0.45 \times \%VSE)]$
	$\geq 33\%$	$[(0.157 \times \%HAP) - 0.0165] \times 2000 \times [1 - (0.45 \times \%VSE)]$
(iii) Vacuum bagging/closed mold with roll out	< 33%	$0.107 \times \%HAP \times 2000 \times 0.85$
	$\geq 33\%$	$[(0.157 \times \%HAP) - 0.0165] \times 2000 \times 0.85$
(iv) Vacuum bagging/closed mold without roll out	< 33%	$0.107 \times \%HAP \times 2000 \times 0.55$
	$\geq 33\%$	$[(0.157 \times \%HAP) - 0.0165] \times 2000 \times 0.55$

TABLE 1
Equations To Calculate Organic HAP Emissions Factors for Specific
Open Molding Process Streams

(excerpts from 40 CFR 63 Subpart WWWW, Table 1, in effect March 20, 2020)

Application Method and Process Stream	HAP Criteria	Organic HAP Emission Factor Equation (lb HAP/ton resin or gel coat)^{a, b, c}
(d) Atomized Mechanical Resin Application with Robotic or Automated Spray Control^d		
Non-vapor suppressed resin	< 33%	$0.169 \times \%HAP \times 2000 \times 0.77$
	$\geq 33\%$	$0.77 \times [(0.714 \times \%HAP) - 0.18] \times 2000$
(e) Filament Application (Resin)^e		
(i) Non-vapor suppressed resin	< 33%	$(0.184 \times \%HAP) \times 2000$
	$\geq 33\%$	$[(0.2746 \times \%HAP) - 0.0298] \times 2000$
(ii) Vapor suppressed resin	< 33%	$(0.12 \times \%HAP) \times 2000$
	$\geq 33\%$	$[(0.2746 \times \%HAP) - 0.0298] \times 2000 \times 0.65$
(f) Atomized Spray Gel Coat Application		
Non-vapor suppressed gel coat	< 33%	$(0.445 \times \%HAP) \times 2000$
	$\geq 33\%$	$[(1.03646 \times \%HAP) - 0.195] \times 2000$
(g) Non-Atomized Spray Gel Coat Application		
Non-vapor suppressed gel coat	< 19%	$(0.185 \times \%HAP) \times 2000$
	$\geq 19\%$	$[(0.4506 \times \%HAP) - 0.0505] \times 2000$
(h) Manual Gel Coat Application^f		
Non-vapor suppressed gel coat ^f	< 33%	$(0.126 \times \%HAP) \times 2000$
	$\geq 33\%$	$[(286 \times \%HAP) - 0.0529] \times 2000$
(2) Centrifugal Casting^{g, h}		
(a) Vented molds with heated air blown through molds		
Non-vapor suppressed resin	All	$(0.558 \times \%HAP) \times 2000$
(b) Vented molds, but air vented through the molds is not heated		
Non-vapor suppressed resin	All	$(0.026 \times \%HAP) \times 2000$

^a The organic HAP emissions factors have units of lb organic HAP per ton of resin or gel coat applied.

^b Percent HAP means total weight percent of organic HAP (styrene, methyl methacrylate, and any other organic HAP) in the resin or gel coat prior to the addition of fillers, catalyst, and promoters. Input the percent HAP as a decimal, i.e., 33 percent HAP should be input as 0.33, not 33.

^c The VSE factor means the percent reduction in organic HAP emissions expressed as a decimal measured by the VSE test method of 40 CFR 63 Subpart WWWW Appendix A.

^d This equation is based on an organic HAP emissions factor equation developed for mechanical atomized controlled spray. It may only be used for automated or robotic spray systems with atomized spray. All spray operations using handheld spray guns must use the appropriate mechanical atomized or mechanical nonatomized organic HAP emissions factor equation. Automated or robotic spray systems using nonatomized spray should use the appropriate nonatomized mechanical resin application equation.

- ^e Applies only to filament application using an open resin bath. If resin is applied manually or with a spray gun, use the appropriate manual or mechanical application organic HAP emissions factor equation.
- ^f Do not use this equation for determining compliance with emission limits in ADP 24-3665 Appendix A Table 2 (40 CFR 63 Subpart WWWW Table 3, in effect March 20, 2020). To determine compliance with emission limits the Permittee must treat all gel coat as if were applied as part of the gel coat spray application operations. If the Permittee applies gel coat by manual techniques only, the Permittee must treat the gel coat as if it were applied with atomized spray and use Equation 1.f. to determine compliance with the appropriate emission limits in ADP 24-3665 Appendix A Table 2 (40 CFR 63 Subpart WWWW Table 3, in effect March 20, 2020). To estimate emissions from manually applied gel coat, the Permittee may either include the gel coat quantities applied manually with the quantities applied using spray or use this equation to estimate emissions from the manually applied portion of the gel coat.
- ^g These equations are for centrifugal casting operations where the mold is vented during spinning. Centrifugal casting operations where the mold is completely sealed after resin injection are closed molding operations.
- ^h If a centrifugal casting operation uses mechanical or manual resin application techniques to apply resin to an open centrifugal casting mold, the Permittee must use the appropriate open molding equation with covered cure and no rollout to determine an emission factor for operations prior to the closing of the centrifugal casting mold. If the closed centrifugal casting mold is vented during spinning, the Permittee use the appropriate centrifugal casting equation to calculate an emission factor for the portion of the process where spinning and cure occur. If a centrifugal casting operation uses mechanical or manual resin application techniques to apply resin to an open centrifugal casting mold, and the mold is then closed and is not vented, the Permittee must treat the entire operation as open molding with covered cure and no rollout to determine emission factors.

TABLE 2
Organic HAP Emissions Limits for Existing and New Open Molding Sources that
Emit Less Than 100 TPY of HAP

(excerpts from 40 CFR 63 Subpart WWWW, Table 3, in effect March 20, 2020)

Operation Type	Process Stream	Organic HAP Emission Limit ¹
(1) Open molding – corrosion- resistant and/or high strength (CR/HS)	(a) Mechanical resin application	113 lb/ton
	(b) Filament application	171 lb/ton
	(c) Manual resin application	123 lb/ton
(2) Open molding – non-CR/HS	(a) Mechanical resin application	88 lb/ton
	(b) Filament application	188 lb/ton
	(c) Manual resin application	87 lb/ton
(3) Open molding – tooling	(a) Mechanical resin application	254 lb/ton
	(b) Manual resin application	157 lb/ton
(4) Open molding – low-flame spread/low-smoke products	(a) Mechanical resin application	497 lb/ton
	(b) Filament application	270 lb/ton
	(c) Manual resin application	238 lb/ton
(5) Open molding – shrinkage-controlled resins ²	(a) Mechanical resin application	354 lb/ton
	(b) Filament application	215 lb/ton
	(c) Manual resin application	180 lb/ton
(6) Open molding – gel coat ³	(a) Tooling gel coating	440 lb/ton
	(b) White/off white pigmented gel coating	267 lb/ton
	(c) All other pigmented gel coating	377 lb/ton
	(d) CR/HS or high-performance gel coat	605 lb/ton
	(e) Fire retardant gel coat	854 lb/ton
	(f) Clear production gel coat	522 lb/ton
(7) Centrifugal casting - CR/HS	(a) Resin application with the mold closed, and the mold is vented during spinning and cure	25 lb/ton ⁴
	(b) Resin application with the mold closed, and the mold is not vented during spinning and cure	Not Applicable. This is considered closed molding
	(c) Resin application with the mold open, and the mold is vented during spinning and cure	25 lb/ton ⁴
	(d) Resin application with the mold open, and the mold is not vented during spinning and cure	Use the appropriate open molding emission limit. ⁵
(8) Centrifugal casting - non-CR/HS	(a) Application with the mold closed, and the mold is vented during spinning and cure	20 lb/ton ⁴

TABLE 2
Organic HAP Emissions Limits for Existing and New Open Molding Sources that
Emit Less Than 100 TPY of HAP
(excerpts from 40 CFR 63 Subpart WWWW, Table 3, in effect March 20, 2020)

Operation Type	Process Stream	Organic HAP Emission Limit ¹
	(b) Resin application with the mold closed, and mold is not vented during the spinning and cure	Not Applicable. This is considered closed molding
	(c) Resin application with the mold open, and the mold is vented during spinning and cure	20 lb/ton ⁴
	(d) Resin application with the mold open, and the mold is not vented during spinning and cure	Use the appropriate open molding emission limit. ⁵
(9) Pultrusion ⁶	Not Applicable	Reduce total organic HAP emissions by at least 60 weight percent.
(10) Continuous lamination and continuous casting	Not Applicable	Reduce total organic HAP emissions by at least 58.5 weight percent or not exceed an organic HAP emissions limit of 15.7 lb of organic HAP per ton of neat resin plus and neat gel coat plus.

¹ Organic HAP emissions limits for open molding and centrifugal casting are expressed as lb/ton. The Permittee must be at or below these values based on a 12-month rolling average.

² This emission limit applies regardless of whether the shrinkage-controlled resin is used as a production resin or a tooling resin.

³ If the Permittee only applies gel coat with manual application, for compliance purposes, the gel coat must be treated as if it were applied using atomized spray guns to determine both emission limits and emission factors. If the Permittee uses multiple application methods and any portion of a specific gel coat is applied using nonatomized spray, the Permittee may use the nonatomized spray gel coat equation to calculate an emission factor for the manually applied portion of that gel coat. Otherwise, the Permittee must use the atomized spray gel coat application equation to calculate emission factors.

⁴ For compliance purposes, the Permittee must calculate the emission factor using only the appropriate centrifugal casting equation in Item 2 of ADP 24-3665 Appendix A Table 1 (40 CFR 63 Subpart WWWW Table 1, in effect March 20, 2020), or a site-specific emission factor for after the mold is closed as discussed in 40 CFR § 63.5796.

⁵ The Permittee must calculate the emission factor using the appropriate open molding covered cure emission factor in Item 1 of ADP 24-3665 Appendix A Table 1 (40 CFR 63 Subpart WWWW Table 1, in effect March 20, 2020), or a site-specific emission factor as discussed in 40 CFR § 63.5796.

- ⁶ Pultrusion machines that produce parts that meet the following criteria: 1,000 or more reinforcements or the glass equivalent of 1,000 ends of 113 yield roving or more; and have a cross sectional area of 60 square inches or more are not subject to this requirement. Their requirement is the work practice of air flow management which is described in 40 CFR 63 Subpart WWWW Table 4.

TABLE 3
Options Allowing Use of the Same Resin Across Different Operations That
Use the Same Resin Type
(excerpts from 40 CFR 63 Subpart WWWW, Table 7, in effect March 20, 2020)

Resin type and application method	Process Stream	Organic HAP Emission Limit (lb/ton)
(1) CR/HS resins, centrifugal casting ^{1,2}	(a) CR/HS mechanical	48.0 ³
	(b) CR/HS filament application	48.0
	(c) CR/HS manual	48.0
(2) CR/HS resins, nonatomized mechanical	(a) CR/HS filament application	46.4
	(b) CR/HS manual	46.4
(3) CR/HS resins, filament application	CR/HS manual	42.0
(4) Non-CR/HS resins, filament application	(a) non-CR/HS mechanical	45.0 ³
	(b) non-CR/HS manual	45.0
	(c) non-CR/HS centrifugal casting ^{1,2}	45.0
(5) Non-CR/HS resins, nonatomized mechanical	(a) non-CR/HS manual	38.5
	(b) non-CR/HS centrifugal casting ^{1,2}	38.5
(6) Non-CR/HS resins, centrifugal casting ^{1,2}	non-CR/HS manual	37.5
(7) Tooling resins, nonatomized mechanical	tooling manual	91.4
(8) Tooling resins, manual	tooling atomized mechanical	45.9

¹ If the centrifugal casting operation blows heated air through the molds, then 95 percent capture and control must be used if the Permittee wishes to use this compliance option.

² If the centrifugal casting molds are not vented, the Permittee may treat the centrifugal casting operations as if they were vented if it wishes to use this compliance option.

³ Nonatomized mechanical application must be used.