



July 27, 2023

James Nelson
Fiber Glass Systems, LP
Main Building
119 South Washington Avenue
Laurel, MT 59044

Sent via email: james.nelson@nov.com

RE: Final Permit Issuance for MAQP #3343-03

Dear Mr. Nelson:

Montana Air Quality Permit (MAQP) #3343-03 is deemed final as of July 26, 2023, by DEQ. This permit is for Fiber Glass Systems, LP, a Fiberglass manufacturer. All conditions of the Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For DEQ,

A handwritten signature in black ink that reads "Julie A. Merkel".

Julie A. Merkel
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626

A handwritten signature in black ink that reads "Troy M. Burrows".

Troy M. Burrows
Air Quality Scientist
Air Quality Bureau
(406) 444-1452

Montana Department of Environmental Quality
Air, Energy & Mining Division
Air Quality Bureau

Montana Air Quality Permit #3343-03

Fiber Glass Systems, LP
Main Building
119 South Washington Avenue
Laurel, MT 59044

July 26, 2023



MONTANA AIR QUALITY PERMIT

Issued To: Fiber Glass Systems, LP.
Main Building
P.O. Box 206
Laurel, MT 59044

MAQP: #3343-03
Application Complete: 6/23/2023
Department's Decision Issued: 7/10/2023
Permit Final: 7/26/2023

A Montanan Air Quality Permit (MAQP), with conditions, is hereby granted to Fiber Glass Systems, LP. (FS) for their Main Building, pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

FS manufactures corrosion-resistant or high-strength fiberglass reinforced plastic products using mechanical or manual open molding techniques. The facility is located in Section 16, Township 2 South, Range 24 East, in Yellowstone County. The physical address is 119 South Washington Avenue, in Laurel, Montana. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

B. Current Permit Action

On June 27, 2023, the Department of Environmental Quality (DEQ) received an Administrative Amendment request from FS to change the name from Fiberglass Structures, Inc. to Fiber Glass Systems, LP.

Section II: Conditions and Limitations

A. Emission Limitations

1. The Volatile Organic Compound (VOC) emissions from the facility shall be limited to 84.92 tons during any rolling 12-month time period (ARM 17.8.749).
2. FS shall not exceed the applicable organic Hazardous Air Pollutant (HAP) emission limit listed in Table 3 of 40 CFR 63 Subpart WWWW on a rolling 12-month basis. For operations characterized as open molding (corrosion resistant and/or high strength), the following limits apply during any 12-month time period (ARM 17.8.342, 40 CFR 63 Subpart WWWW):

a. Mechanical resin application	113 pounds HAP/ton resin (lb/ton)
b. Manual resin application	123 lb/ton
c. Gelcoat application	605 lb/ton
3. FS shall comply with all applicable standards and limitations contained in 40 CFR 63, Subpart WWWW, including work practice standards specified in Table 4 (ARM 17.8.342 and 40 CFR 63 Subpart WWWW).
4. FS shall not cause or authorize to be discharged into the atmosphere from any sources, stack emissions that exhibit 20% opacity or greater averaged over six

consecutive minutes (ARM 17.8.304).

5. FS shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
6. FS shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.749).
7. FS shall limit the hours of operation and/or material throughput such that the sum of the emissions from the facility does not exceed the emission limit established under Section II.A.1 during any rolling 12-month time period. Any calculations used to establish VOC emissions shall be approved by the Department of Environmental Quality (Department), unless otherwise allowed by DEQ (ARM 17.8.749).

B. Testing Requirements

1. All compliance source tests must be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
2. DEQ may require testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. FS shall supply DEQ with annual production information for all emission points, as required by DEQ in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to DEQ by the date required in the emission inventory request. Information shall be in the units required by DEQ. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. FS shall notify DEQ of any construction or improvement project conducted pursuant to ARM 17.8.745 that would include ***the addition of a new emissions unit***, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to DEQ, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
3. FS shall document, by month, the VOC and HAP emissions from the facility. By the 25th day of each month, FS shall total the VOC and HAP emissions from the facility during the previous 12 months to verify compliance with the limitations in Section II.A.1 and Section II.A.2.

For the fiberglass resin applications, the calculation of VOC and HAP emissions shall be based on the amount of each resin used, and the percentage of VOC and

HAP in each resin. The emissions for the fiberglass process are to be calculated in accordance with the requirements of 40 CFR 63 Subpart WWWW.

For painting or other processes emitting VOCs and HAPs, the emissions will be based on the amount of raw material used (such as paint and thinner) and the percent VOC and HAP in each raw material.

D. Notification

1. FS must submit to DEQ all notifications and reports in accordance with the requirements of 40 CFR 63, Subpart WWWW.
2. FS shall provide DEQ with written notification of the actual start-up date of the gel coat system and chop-hoop winder within 15 days after the actual start-up date.

Section III: General Conditions

- A. Inspection - FS shall allow DEQ's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment, such as continuous emission monitoring systems (CEMS)/continuous emission rate monitoring systems (CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if FS fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving FS of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement - Violations of limitations, conditions, and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by DEQ's decision may request, within 15 days after DEQ renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay DEQ's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of DEQ's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, DEQ's decision on the application is final 16 days after DEQ's decision is made.
- F. Permit Inspection - As required by ARM 17.8.755 Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fee - Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by FS may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

- H. Duration of Permit - Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).

Montana Air Quality Permit (MAQP) Analysis
Fiber Glass Systems, LP.
MAQP #3343-02

I. Introduction/Process Description

A. Permitted Equipment

Fiber Glass Systems, LP. (FS) owns and operates a fiberglass manufacturing facility known as the “Main Building”. FS’s Main Building is located in Section 16, Township 2 South, Range 24 East, in Yellowstone County, Montana. The physical address is 119 South Washington Avenue, in Laurel, Montana. Equipment used at the facility includes, but is not limited to the following:

- Two (2) Gel Coat Spray Booth Unit
- Four (4) Venus Chopper High-Volume Low-Pressure (HVLP) Non-Atomizing Spray Guns;
- One (1) Venus Chop-Hoop Winder;
- Spray Painting System;
- Nine (9) Overhead Infra-Red Natural-Gas-fired heaters; and
- Associated Equipment.

B. Source Description

The FS - Main Building includes a process building where fiberglass tanks and other fiberglass reinforced plastic (FRP) products are produced. The manufacture of FRP at FS utilizes thermoset resins that contain styrene. Volatile Organic Compound (VOC) emissions, primarily styrene, result from the product manufacturing process. Styrene is a listed Hazardous Air Pollutant (HAP). FS is a major source due to its potential to emit over 10 tons per year (tpy) of a HAP.

All materials/products produced at FS were determined to be characterized as “corrosion-resistant and/or high strength” due to properties required for each product. The resins are non-suppressed. Operation at FS is “open mold” type production. The first step is fabrication of a plug, typically from wood. After generating the rough shape, the plug is coated with primer. A mold release compound (wax) is applied by hand. To make the mold, laminate (polyester resin, catalyst, and glass fibers) is then applied to the plug. The plug is removed, and the mold is then prepared for production by waxing the surface with the mold release wax.

To produce the tanks or other fiberglass products, laminate is applied to the mold. FS conducts mostly mechanical applications, although manual applications are occasionally used.

The Gel Coat unit is the MVE-1400-4-1 Multi-Color System One Gelcoat Unit. It is an external mix gun that mixes polyester gel coat and catalyst outside the gun using a “high volume/low pressure” (HVLP) spray system to ensure that gel coat materials do not atomize. The primary chemicals used in polyester gel coats are styrene monomer, silicon dioxide, methyl methacrylate, and unsaturated polyester resin. Typical cure time is 15-25 minutes.

The Chop-Hoop Winder and Chopper Guns are classified as non-atomized mechanical resin application systems that employ HVLP non-atomizing units, used for a variety of smaller products. They spray a shaped stream of resin and catalyst, mixing externally

with glass fibers fed through a chopper wheel. Depending upon the resin type and the product, the laminate is allowed to cure for 30 minutes to 24 hours before removal from the mold.

Acetone, which is not a VOC, is used for cleaning the application equipment.

C. Permit History

On June 24, 2004, the Montana Department of Environmental Quality (Department) received a complete Montana Air Quality Permit Application for the operation of FS's Main Building. **MAQP #3343-00** became final and effective on August 10, 2004.

On April 17, 2006, DEQ received an application to amend the permit for FS's Main Building. Specifically, FS requested removal of the Venus Automatic Chop Hoop Winder from FS's Main Building permit since it was recently moved to FS's Tank Division (Permit #3821-00). In addition, FS requested correction of the potential emissions from the remaining equipment to reflect more accurate emission estimates. The facility-wide emissions decreased from 90 tpy to 37 tpy of VOC, which is almost all styrene (a HAP).

The Main Building remains a major Title V source due to the potential to emit over 10 tpy of a HAP. As a major source, it is subject to the Maximum Achievable Control Technology (MACT) standard 40 Code of Federal Regulations (CFR) 63 Subpart WWWW.

On May 26, 2006, FS requested that DEQ wait until the FS's Tank Division permit was finalized prior to amending the permit. The Tank Division permit went final on September 28, 2006. DEQ modified the permit to reflect the current operating conditions and updated the regulatory references to the MACT standard 40 CFR 63 Subpart WWWW. **MAQP #3343-01** replaced MAQP #3343-00.

On October 21, 2011, DEQ received an application to modify FS's MAQP to add one (1) gel coat spray booth and one (1) chop-hoop winder to the existing equipment. In addition to these changes, this permit action updated current rule references, the permit format, and the emissions inventory. **MAQP #3343-02** replaced MAQP #3343-01.

D. Current Permit Action

On June 27, 2023, the Department of Environmental Quality (DEQ) received an Administrative Amendment request from FS to change the name from Fiberglass Structures, Inc. to Fiber Glass Systems, LP. **MAQP #3343-03** replaces MAQP #3343-02.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from DEQ. Upon request, DEQ will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of DEQ, provide the facilities and necessary equipment, and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by DEQ.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by DEQ, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

FS shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from DEQ upon request.

4. ARM 17.8.110 Malfunctions. (2) DEQ must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide (SO₂)
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide (CO)
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter (PM)
8. ARM 17.8.223 Ambient Air Quality Standard for Particulate Matter with an aerodynamic diameter of ten microns or less (PM₁₀)

FS must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable

precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, FS shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. (5) Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions.
6. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR Part 60.
7. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR 63, shall comply with the requirements of 40 CFR 63, as listed below:
 - a. 40 CFR 63, Subpart A - General Provisions. General provisions apply to all equipment or facilities subject to an NESHAP Subpart as listed below;
 - b. 40 CFR 63, Subpart WWWW - National Emissions Standards for Hazardous Air Pollutants: Reinforced Plastic Composite Production. Owners or operators of facilities that use thermoset resins and/or gel coats that contain styrene, and that are a major source of HAPs, as defined and applied in 40 CFR Part 63, shall comply with the standards and provisions of 40 CFR 63, Subpart WWWW. Based on the information submitted by FS, the facility is subject to the provisions of 40 CFR 63, Subpart WWWW because the facility uses thermoset resins and/or gel coats that contain styrene and is a major source of HAPs.

D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to DEQ. FS is not required to submit a permit application fee for the current permit action as it is an Administrative Amendment.
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to DEQ by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by DEQ; the air quality operation fee is based on the actual or

estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. DEQ may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

- E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
 2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a facility to obtain an air quality permit or permit alteration if they construct, alter or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons per year of any pollutant. FS has a PTE greater than 25 tons per year of VOCs; therefore, an air quality permit is required.
 3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
 4. ARM 17.8.745 Montana Air Quality Permits—Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration or use of a source. FS submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. FS is not required to submit an affidavit of publication of public notice for this action since it is an Administrative Amendment.
 5. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the DEQ must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
 6. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
 7. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the DEQ at the location of the source.

8. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving FS of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
 9. ARM 17.8.759 Review of Permit Applications. This rule describes the DEQ's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
 10. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
 11. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
 12. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
 13. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the DEQ.
- F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:
1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
 2. ARM 17.8.818 Review of Major Stationary Sources and Major Modification-- Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since it is not a listed source and the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions).

- G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:
1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
 - a. PTE > 100 tpy of any pollutant;
 - b. PTE > 10 tpy of any one HAP, PTE > 25 tpy of any combination of HAPs, or lesser quantity as the DEQ may establish by rule; or
 - c. PTE > 70 tpy of PM₁₀ in a serious PM₁₀ nonattainment area.
 2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #3343-02 for FS, the following conclusions were made:
 - a. The facility's PTE is less than 100 tpy for any pollutant.
 - b. The facility's PTE is greater than 10 tpy for any single HAP and greater than 25 tpy of combined HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is not subject to a current NSPS.
 - e. This facility is subject to a current NESHAP standard (40 CFR 63, Subpart WWWW).
 - f. This source is not a Title IV affected source or a solid waste combustion unit.
 - g. This source is not an EPA-designated Title V source.

Based on these facts, the DEQ determined that FS's Main Building is a major source of emissions as defined under Title V as the source's potential HAP emissions are above the major source threshold. FS currently operates under a Title V Operating Permit. The changes associated with this permit action will be incorporated into the Operating Permit.

III. BACT Determination

A BACT determination is required for each new or altered source. FS shall install on the new or altered source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT analysis was Not required for the current permit action because it is considered an administrative change.

IV. Emission Inventory

Potential Emissions [Tons/Year] ⁽¹⁾

Existing Source(s)	VOC	HAP
System One Gel Coat Unit	8.45	8.45
Venus Chopper Gun #1	5.34	5.34
Venus Chopper Gun #2	5.34	5.34
Venus Chopper Gun #3	5.34	5.34
Venus Chopper Gun #4	5.34	5.34
Paint Application	0.27	--
Mold Release	0.03	--
Total Existing Source Emissions ►	30.13	29.83

Proposed Source(s)	VOC	HAP
Gel Coat Spray Booth	8.85	8.85
Chop-Hoop Winder	45.9	45.95
Total Proposed Source Emissions ►	54.79	54.79

	VOC	HAP
TOTAL FACILITY-WIDE EMISSIONS ►	84.92	84.62

Basis:

- (1) VOC and HAP's are the only regulated pollutant emitted by the facility*
- (2) 40 CFR 63, Subpart WWWW - Table 1 Equations to calculate HAP emission factors*
- (3) 2010 usage and emissions calculated at 2,600 hours of operation [source 2010 actual annual emissions / 2,600 hrs of operation = source lbs/hr emission rate]*

*EF, emission factor
gal, gallons
HAP, hazardous air pollutant
hrs, hours
lbs, pounds
VOC, volatile organic compounds
Wgt, weight*

Existing Equipment [Based on previous MAQP emission inventory]

System One Gel Coat Unit

Emission Factor: 1.93 lbs VOC/hr (Company Provided Information)
 Calculations: (1.93 lbs/hr) * (8760 hrs/year) * (0.0005 tons/lb) = 8.45 tons/yr

Venus Copper Guns (4 Guns)

Emission Factor: 1.22 lbs VOC/hr (Company Provided Information)
 Calculations: (1.22 lbs/hr) * (8760 hrs/year) * (0.0005 tons/lb) = 5.34 tons/yr

Manual Application

Estimated at 22.8% of the facilities total existing mechanical application usage
 Calculations: (1.22 lbs/hr) * (8760 hrs/year) * (0.0005 tons/lb) = 5.34 tons/yr

Paint Application and Thinner

Maximum Usage Rate:
 Paint: 60 gal/yr 7.6 lbs VOC/gal
 Thinner: 10 gal/yr 7.6 lbs VOC/gal

Assumes 100% loss of volatile fractions (Paint and thinner contain No HAP's)

Calculations: $[(60 \text{ gal/yr}) + (10 \text{ gal/yr})] * (7.6 \text{ lbs/gal}) * (0.0005 \text{ tons/lb}) = 0.27 \text{ tons/yr}$

Mold Release

Estimated annual maximum consumption rate of 144 -11 oz containers [99 lbs/yr]

VOC Content: 60% [wgt %]

Calculations: $(99 \text{ lbs/yr}) * (0.60 \text{ wgt fraction}) * (0.0005 \text{ tons/lb}) = 0.03 \text{ tons/yr}$

Proposed Equipment [See 2010 Actual Resin Throughput/Emission Demonstration for emission factor basis]

Gel Coat Application [non-atomized]

Emission Factor: 2.02 lbs/hr ⁽³⁾

Calculations: $(2.02 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) = 8.85 \text{ tons/yr}$

Chop-Hoop Winder

Emission Factor: 10.49 lbs/hr⁽³⁾

Calculations: $(10.49 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) = 45.9 \text{ tons/yr}$

2010 Actual Resin Throughput/Emission Demonstration

Mechanical Resin Application [non-atomized/non-vapor suppressed]:

Resin	HAP Content [wgt %]	Emission Factor Equation ⁽²⁾	EF [lbs/ton]	2010 Usage		2010 Emissions		
				[lbs]	[tons]	[lbs]	[tons]	
Dion 6631-20 RCI ISO	0.46	[(0.157*%HAP) - 0.0165]*2000	111.44	52280	26.14	2913.04	1.46	
H550-HPA-25	0.40		92.6	215207	107.60	9964.08	4.98	
Aropol 7323468301	0.44		105.16	273896	136.95	14401.4	5	7.20
2010 Mechanical Application Totals ►				541383	270.69	27278.5	8	13.64

Spray Gel Coat Application [non-atomized]:

Resin	HAP Content [wgt %]	Emission Factor Equation ⁽²⁾	EF [lbs/ton]	2010 Usage		2010 Emissions	
				[lbs]	[tons]	[lbs]	[tons]
NG-3873 Mesa Tan	0.423	[(0.4506*%HAP) - 0.0505]*2000	280.21	31177	15.59	4368.02	2.18
AG-3016 Cloud Grey	0.423		280.21	1005	0.50	140.80	0.07
WG-0317 White	0.328		194.59	6254	3.13	608.49	0.30
BG-3411 Copper	0.423		280.21	918	0.46	128.62	0.06
2010 Gel Coat Application Totals ►				39354	19.68	5245.93	2.62

Equipment Hourly Emissions Determination:

Emission Scenario	Application Method	Usage			Emissions
		[lbs/year]	[tons/year]	[lbs/hrs]	[lbs/hrs]
Actual ⁽³⁾	Gel Coat Booth	39354	19.68	15.14	2.02
	Chop-Hoop Winder	541383	270.69	208.22	10.49
	Actual Emission Totals ►				12.51

V. Existing Air Quality

The FS Main Building is located in Section 16, Township 2 South, Range 24 East, in Yellowstone County, Montana. The physical address is 119 South Washington Avenue, in Laurel, Montana. This facility is located in the Laurel SO₂ nonattainment area. The area is considered attainment for all other criteria pollutants. The Billings CO nonattainment area was classified to attainment through direct final rulemaking by United States Environmental Protection Agency (EPA) on April 22, 2002.

VI. Ambient Air Impact Analysis

The DEQ believes the emissions from the facility will not cause or contribute to a violation of any ambient air quality standard. The DEQ determined that the impact from this permitting action will be minor. The DEQ believes the facility will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the DEQ conducted the following private property taking and damaging assessment.

YES	NO	
	X	1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the DEQ determined there are no taking or damaging implications associated with this permit action.

VIII. Environmental Assessment

An environmental assessment is not required by the Montana Environmental Policy Act, since this is an Administrative Amendment.

Permit Analysis: Troy Burrows

Date: 7/10/2023