

May 16, 2018

Fiberglass Structures Inc. Fiberglass Tank Division P.O. Box 206 Laurel, MT 59044

Dear Mr. Harris:

Montana Air Quality Permit #3821-02 is deemed final as of May 15, 2018, by the Department of Environmental Quality (Department). All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Julie A. Merkel

Permitting Services Section Supervisor

Julio A Merkel

Air Quality Bureau (406) 444-3626

ЈМ:СН

Enclosures

Craig Henrikson, P.E. Environmental Engineer Air Quality Bureau

(406) 444-6711

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

Montana Air Quality Permit #3821-02

Fiberglass Structures Inc. P.O. Box 206 Laurel, MT 59044

May 15, 2018



# MONTANA AIR QUALITY PERMIT

Issued to: Fiberglass Structures Inc. MAQP: #3821-02

P.O. Box 206 Application Complete: 3/26/2018

Laurel, MT 59044 Preliminary Determination Issued: 4/11/2018
Department's Decision Issued: 4/27/2018

Permit Final: 5/15/2018

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Fiberglass Structures Inc. (FS), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

#### A. Plant Location

FS operates a manufacturing facility that produces tanks and other products made from fiberglass. FS's Tank Division is located in Section 16, Township 2 South, Range 24 East, in Yellowstone County. The physical address is 1202 E. Railroad Avenue, in Laurel, Montana.

#### B. Current Permit Action

On March 26, 2018, the Department of Environmental Quality (Department) received an application from FS to add a Gel Coat Non-atomized Spray Booth and remove one Chop-Hoop Winder from their current MAQP. In addition to these changes, this permit action updates current rule references, the permit format, and the emissions inventory. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

#### Section II: Conditions and Limitations

#### A. Emission Limitations

- 1. 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 12-month rolling basis. For operations characterized as open molding corrosion resistant and/or high strength, the following limits apply (ARM 17.8.342, 40 CFR 63 Subpart WWWW):
  - Mechanical resin application 113 pounds HAP/ton resin (lb/ton)

Manual resin application
Non-atomized Spray Gel
123 lb/ton
605 lb/ton

2. FS shall limit production of HAP emitting processes so total HAP emissions remain below 100 tpy on a 12-month rolling basis (40 CFR 63, Subpart WWWW and ARM 17.8.749).

- 3. FS shall comply with all applicable standards and limitations contained in 40 CFR 63, Subpart WWWW, including the work practice standards specified in Table 4 (ARM 17.8.342 and 40 CFR 63, Subpart WWWW).
- 4. FS shall use high volume/low pressure (HVLP) non-atomizing spray systems on the Chop Hoop Winder and the Chopper Guns (ARM 17.8.752).
- 5. FS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
- 6. 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).
- 7. 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.6 (ARM 17.8.749).

# B. Testing Requirements

- 1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- 2. The Department may require further testing (ARM 17.8.105).

# C. Operational Reporting Requirements

1. FS shall supply the Department with annual production information for all emission points, as required by the Department 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 the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505). FS shall submit the following information annually to the Department by March 1 of each year; the information may be submitted along with the annual emission inventory (ARM 17.8.505).

2. FS shall notify the Department 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 the Department, in

writing, 10 days prior to startup 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(l)(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. The monthly information will be used to verify compliance with the rolling 12-month limitations in Section II.A.1 and Section II.A.2. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

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.

- 4. FS must document any change in the raw materials, or VOC and HAP contents, with new or updated product information. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).
- 5. All records compiled in accordance with this permit must be maintained by FS as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request. These records may be stored at a location other than the plant site upon approval by the Department (ARM 17.8.749).

#### D. Notification

FS must submit to the Department all notifications and reports in accordance with the requirements of 40 CFR 63, Subpart WWWW.

#### Section III: General Conditions

- A. Inspection FS shall allow the Department'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) or 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 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 action as specified in Section 75-2-401, et seq., MCA.
- E. Appeals Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefor, 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 the Department'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 the Department'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, the Department's decision on the application is final 16 days after the Department'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 the Department at the location of the source.
- G. Permit Fee Pursuant to Section 75-2-220, MCA, 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 expire (ARM 17.8.762).

# Montana Air Quality Permit (MAQP) Analysis Fiberglass Structures Inc. MAQP #3821-02

# I. Introduction/Process Description

## A. Permitted Equipment

Fiberglass Structures Inc. (FS) operates a manufacturing facility that produces tanks and other products made from fiberglass. FS's Tank Division is located in Section 16, Township 2 South, Range 24 East, in Yellowstone County. The physical address is 1202 E. Railroad Avenue, in Laurel, Montana. Equipment used at the facility includes, but is not limited to the following:

- One Venus Chop Hoop Winder (High-Volume Low-Pressure (HVLP) nonatomizing);
- Three Venus Chopper Guns (HVLP non-atomizing);
- Paint Application HVLP Hand Held Spray Gun;
- Gel-Coat Non-atomized Spray Booth;
- Three, Overhead Infra-red natural gas fired heaters (100,000 British thermal units each); and
- Associated Equipment.

# B. Source Description

FS's Tank Division 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). 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.

Operations at FS are considered —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 Chop Hoop Winders are the predominant equipment used at FS's Tank Division. Both are HVLP non-atomizing spray unit, used only for the manufacture of

large and medium sized tanks. The Chopper Guns are also a HVLP non-atomizing unit, used for a variety of smaller products. Both 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, September 28, 2006, FS was issued **MAQP** #3821-00 to operate a manufacturing facility that produces tanks and other products made from fiberglass.

On July 15, 2011, FS was issued **MAQP #3821-01**, providing for the addition of two chopper guns and one chop hoop winder to the existing permitted equipment. In addition to these changes, this permit action updated current rule references, the permit format, and the emissions inventory. MAQP #3821-01 replaced MAQP #3821-00.

#### D. Current Permit Action

One March 26, 2018, an air quality permit application was received by the Department. The current permit action removes one Chop-Hoop Winder and adds one Gel Coat Spray Booth which is defined as an open-mold non-atomized application. The new Gel Coat sprayer functionally matches an existing sprayer for determining the increase in emissions and therefore is based on actual emissions scaled to 8760 hours per year. Gel Coat emissions are primarily styrene with little other contribution of VOC. The removal of the Chop-Hoop Winder will provide for a decrease in emissions, resulting in the overall project providing a decrease in the potential to emit. In addition to these changes, this permit action updates current rule references, the permit format, and the emissions inventory. A previous limit on VOC emissions was modified to reflect a requirement of 40 CFR 63, Subpart WWWW to include a production limit to keep total HAP emissions below 100 tons per year (tpy). A complete list of the permitted equipment is contained in Section I.A of the permit analysis. **MAQP #3821-02** replaces MAQP #3821-01.

#### E. Response to Public Comments

Person/Group Commenting	Permit Reference	Comment	Department Response
None received			

#### 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 the Department of Environmental Quality (Department). Upon request, the Department will provide references for location 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. <u>ARM 17.8.101 Definitions</u>. 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 the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
- 3. <u>ARM 17.8.106 Source Testing Protocol</u>. The requirements of this rule apply to any emission source testing conducted by the Department, 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 the Department upon request.
- 4. ARM 17.8.110 Malfunctions. (2) The Department 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 the following:
  - 1. ARM 17.8.204 Ambient Air Monitoring
  - 2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
  - 3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
  - 4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
  - 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
  - 8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
  - 9. ARM 17.8.222 Ambient Air Quality Standard for Lead
  - 10. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>
  - 11. ARM 17.8.230 Fluoride in Forage

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. <u>ARM 17.8.304 Visible Air Contaminants</u>. 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 6 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, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
- 4. <u>ARM 17.8.310 Particulate Matter, Industrial Process</u>. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
- 5. <u>ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel</u>. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.
- 6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.
- 7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). FS is not considered an NSPS affected facility under 40 CFR Part 60.
- 8. <u>ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories</u>. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below:
  - a. <u>40 CFR 63, Subpart A General Provisions</u> apply to all equipment or facilities subject to an NESHAP Subpart as listed below:
  - b. 40 CFR 63, Subpart WWWW, National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites 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 therefore, the facility is a major source of HAPs. FS currently has limited production to limit HAPs below 100 tpy, otherwise FS would be subject to further requirements under Subpart WWWW.

- D. ARM 17.8, Subchapter 4 Stack Height and Dispersion Techniques, including, but not limited to:
  - 1. <u>ARM 17.8.401 Definitions</u>. This rule includes a list of definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.402 Requirements</u>. FS must demonstrate compliance with the ambient air quality standards with a stack height that does not exceed Good Engineering Practices (GEP).
- E. 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 the Department. FS submitted the appropriate permit application fee for the current permit action.
  - 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 the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. 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. The Department 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 prorate the required fee amount.
- F. ARM 17.8, Subchapter 7 Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:
  - 1. <u>ARM 17.8.740 Definitions</u>. 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 person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year (tpy) of any pollutant. FS has a PTE greater than 25 tpy of VOCs and HAPs; therefore an air quality permit is required.
  - 3. <u>ARM 17.8.744 Montana Air Quality Permits--General Exclusions</u>. 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.

- 5. 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, modification, 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 submitted an affidavit of publication of public notice for the March 22, 2018, issue of the Laurel Outlook, a newspaper of general circulation in the City of Laurel in Yellowstone County, as proof of compliance with the public notice requirements.
- 6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department 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.
- 7. 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.
- 8. <u>ARM 17.8.755 Inspection of Permit</u>. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
- 9. <u>ARM 17.8.756 Compliance with Other Requirements</u>. 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.*
- 10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department'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.
- 11. <u>ARM 17.8.760 Additional Review of Permit Applications</u>. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.
- 12. 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 modified 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.
- 13. <u>ARM 17.8.763 Revocation of Permit</u>. 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).

- 14. 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.
- 15. <u>ARM 17.8.765 Transfer of Permit</u>. 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 Department.
- G. ARM 17.8, Subchapter 8 Prevention of Significant Deterioration of Air Quality, including, but not limited to:
  - 1. <u>ARM 17.8.801 Definitions</u>. This rule is a list of applicable definitions used in this subchapter.
  - 2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--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 because this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions).
- H. ARM 17.8, Subchapter 10 Preconstruction Permit Requirements for Major Stationary Sources of Modifications Located Within Attainment or Unclassified Areas, including, but not limited to:
  - ARM 17.8.1004 When Air Quality Preconstruction Permit Required. This current permit action does not constitute a major modification. Therefore, the requirements of this subchapter do not apply.
- I. ARM 17.8, Subchapter 12 Operating Permit Program Applicability, including, but not limited to:
  - 1. <u>ARM 17.8.1201 Definitions</u>. (23) Major Source under Section 7412 of the FCAA is defined as any source having:
    - a. PTE > 100 tons/year of any pollutant;
    - b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or

- c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less ( $PM_{10}$ ) in a serious  $PM_{10}$  nonattainment area.
- 2. ARM 17.8.1204 Air Quality Operating Permit Program. (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 MAQP #3821-02 for FS, the following conclusions were made:
  - a. The facility's PTE is less than 100 tons/year for any pollutant.
  - b. The facility's PTE is greater than 10 tons/year for any one HAP and greater than 25 tons/year for all HAPs.
  - c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
  - d. This facility is not subject to a current NSPS.
  - e. This facility is subject to NESHAP (40 CFR 63, Subpart WWWW). FS is currently voluntary limiting their production to limit total HAP emissions below 100 tpy total HAPs, otherwise FS will be subject to additional requirements contained within 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 Department determined that FS is major source of emissions as defined under Title V and currently operates under Title V Operating Permit #OP3821-02, which was issued final and effective on July 11, 2012. The Title V renewal is currently being updated and some minor text changes describing the emitting units associated with this action are expected to be incorporated into Operating Permit #OP3821-03.

#### III. BACT Determination

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

The majority of the following BACT analysis was previously included for both the initial fiberglass application and spray painting at FS's Tank Division. Modifications occurring under MAQP #3821-01 also relied upon a revalidation of the initial BACT analysis. Similarly, this permit action merely adds a functionally equivalent spray booth which will have a similar BACT analysis as control options for paint spray booths have not changed significantly recently.

#### Fiberglass Application

FS conducts mechanical, and to a minor extent manual, fiberglass resin application. The primary products at this location are fiberglass tanks, which can be classified into five product categories:

Product Type	Description
Aboveground Storage Tanks	Oil field use for salt brine and petroleum
Underground Storage Tanks	Petroleum storage
Haul Trucks – truck mounted	Salt brine and petroleum storage
tanks	
Stock Tanks	Ranching and agricultural
Burial Vaults	Electrical, mechanical, and funeral

Each product line is classified as —corrosion-resistant and/or high strength, based on the desired or required properties of the tank. FS is required to meet the open-molding emission limits in the MACT standard for corrosion-resistant and/or high strength products. The MACT standard was finalized in April 2003, and as such represents the best control for the top 12% of the industry, at that time. However, the Department requires each source to continually review the BACT options available for their source.

Control Technology for FS can be considered as one of two broad categories: end-of pipe control to destruct VOC/HAP emissions from the facility's building vents, or process/raw material modifications to reduce the VOC/HAP emissions from the process.

# A. Identification of VOC/HAP Control Options for Gel Coating

The following are potential VOC/HAP control options for FS that were evaluated under MAQP #3821-00 but would also apply to this permit modification for controlling VOCs.

# End-of-Pipe Control:

- Thermal Oxidation regenerative
- Thermal Oxidation direct flame with catalytic converter
- Thermal Oxidation direct flame
- Carbon Adsorption regenerative granulated activated carbon (GAC)
- Carbon Adsorption single use
- Refrigeration/Distillation

#### Process Modifications:

- Closed Mold
- Vapor Suppressed Resin
- Low Styrene Resin
- High Volume Low Pressure (HVLP) non-atomized

## B. Eliminate Technically Infeasible VOC Options:

According to FS, it is technically infeasible to change from open-mold to closed-mold, due to the size and curing times for the tanks.

On testing performed at FS over the past few years, vapor suppressed resin was found to be technically infeasible. FS stated that vapor suppressed resin, which typically contains a surfactant such as wax, caused extreme problems with secondary applications of resin.

FSI currently operates with HVLP without additional controls on the existing units. Based on the amount of emissions and high incremental cost per ton figures shown previously, the Department concurs with that original determination. No comparative VOC emission control information was found for this specific type of facility; however, this analysis is consistent with VOC emission control analyses for other types of facilities. The Department determined that the use of HVLP spray systems using non-atomized processing on the new equipment would constitute BACT.

## IV. Emission Inventory

The summary of the emission inventory is included below.

HAPs = hazardous air pollutants VOC = volatile organic compounds

Source	VOC	HAP (Styrene)
1-Venus Automatic Chop-Hoop Winder	33.33	33.33
3-Venus Chopper Guns	9.86	9.86
Manual Application	17.0	17.0
Gel Coat Spray Booth	8.06	8.06
Paint and Thinner	4.73	0
Mold Release	0.03	0
Total	73.01	68.25

Inventory reflects emissions based on a 5-day work week, 10 hours per day, with holidays excluded to determine the actual run hours and then scaled to 8,760 hours to reach full potential to emit. This modification used five year actual emissions from years 2006 through 2010 to estimate updated emissions for both the Chop Hoop Winder and the new Gel Coat spray booth.

## V. Existing Air Quality

FS's Tank Division is located in Section 16, Township 2 South, Range 24 East, in Yellowstone County. The physical address is 1202 E. Railroad Avenue, in Laurel, Montana. This facility is located in the Laurel SO<sub>2</sub> nonattainment area. The area is considered attainment for all other criteria pollutants. The Billings CO nonattainment area was reclassified to attainment by EPA's direct final rulemaking on April 22, 2002.

## VI. Ambient Air Quality Impact Analysis

The Department determined that the impacts from this permitting action will be minor as the overall project scope provides for a reduction in the potential to emit. The Department believes it 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 Department 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 Department determined there are no taking or damaging implications associated with this permit action.

## VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

Analysis Prepared By: Craig Henrikson

Date: March 27, 2018

#### DEPARTMENT OF ENVIRONMENTAL QUALITY

Air, Energy & Mining Division
Air Quality Bureau
P.O. Box 200901, Helena, Montana 59620
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# **ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* Fiberglass Structures Inc.

Montana Air Quality Permit number (MAQP): 3821-02

EA Draft: 4/11/2018 EA Final: 4/27/2018 Permit Final: 5/15/2018

- 1. Legal Description of Site: The facility is located in Section 16, Township 2 South, Range 24 East, in Yellowstone County, Montana.
- 2. *Description of Project*: The current action would provide for the addition of a second spray booth and remove one of the two chop hoop winders at the site.
- 3. *Objectives of Project:* The objective of the project would be to generate business and revenue for the company and to continue to supply fiberglass products.
- 4. Alternatives Considered: In addition to the proposed action, the Department also considered the "no action" alternative. The "no action" alternative would deny the issuance of the MAQP to the facility. However, the Department does not consider the "no action" alternative to be appropriate because FS is already in existence and has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no action" alternative was eliminated from further consideration. Other alternatives considered were discussed in the Best Available Control Technology (BACT) analysis.
- 5. A Listing of Mitigation, Stipulations, and Other Controls: A listing of the enforceable permit conditions and a permit analysis, including a BACT analysis, would be contained in MAQP #3821-02.
- 6. Regulatory Effects on Private Property: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.
- 7. SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.
  - A. Terrestrial and Aquatic Life and Habitats

Terrestrial and aquatic life and habitats are unlikely to be affected by this project. This permit action would add a second paint sprayer and remove an existing chop hoop winder

within an existing FS building. The overall project scope provides for a decrease in the potential to emit. Overall, any impact to the terrestrial and aquatic life and habitats of the project area would be minor.

## B. Water Quality, Quantity and Distribution

This permit action would not cause additional impacts to water quantity or distribution in the project area. The operation would continue to take place within existing facilities and would not discharge process water as part of the project. There would be sanitary water use and discharge at the facility.

Emissions from the project could affect water quality in the project area. However, as described in Section 7.F of this EA, any emissions and resulting deposition impacts from the current permit action would be minor due to the low concentration of the pollutants emitted and dispersion characteristics of pollutants and the atmosphere.

## C. Geology and Soil Quality, Stability, and Moisture

The equipment would operate within an existing facility and no new construction outside the current footprint would be required. Any impact from deposition of these pollutants would be minor due to dispersion characteristics of pollutants and the atmosphere and the low concentration of the pollutants emitted.

## D. Vegetation Cover, Quantity, and Quality

This permitting action would have minor impacts on the surrounding vegetation because the facility is already in existence. The existing surrounding land is industrial in nature. The facility emissions from this project may have a minor effect on the surrounding vegetation; however, the air quality permit associated with this project would contain limitations to minimize the effect of the emissions on the surrounding environment. Overall, this project would have minor effects on the vegetation cover, quantity and quality.

#### E. Aesthetics

Providing a permit for the existing facility and associated equipment will not result in any aesthetic changes as the facility already exists.

# F. Air Quality

The current permit action would reduce the total potential to emit for the facility, and therefore, the air quality impacts from this action would be minor. Because FS has the potential to emit over 10 tons per year of styrene, a HAP, the source will continue to be classified as a Title V source.

MAQP #3821-02 would include conditions limiting the opacity. Montana does not have ambient air quality standard for styrene nor an odor regulation. Although VOC is a contributor to ozone, the low amount of emissions would not be expected to cause an exceedance of any ozone air quality standard. The Department determined that the addition of the equipment to the existing facility, in addition to the limits and conditions included in this permit, would not cause or contribute to a violation of any applicable

ambient air quality standard. Therefore, the Department determined that ambient air impacts from this permitting action would be minor.

# G. Unique Endangered, Fragile, or Limited Environmental Resources

This project will occur within an existing building not resulting in any new footprint disturbance. Additionally, the overall potential to emit for the facility will be reduced. Therefore, the Department determined that impacts to unique endangered, fragile, or limited environmental resources from this permitting action would be minor.

## H. Demands on Environmental Resource of Water, Air, and Energy

The facility would have minor impacts on the demands for the environmental resources of air and water because the facility would be a source of air pollutants. Deposition of pollutants would occur as a result of operating the facility; however, as explained in Section 7.F of this EA, the Department determined that any impacts on air and water resources from the pollutants (including deposition) would be minor. The Department determined that controlled emissions from the source would not cause or contribute to a violation of any ambient air quality standard. Therefore, any impacts to air quality from the addition of the new equipment would be minor.

## I. Historical and Archaeological Sites

Since the site already exists and no new disturbance is planned, no review of any historical or archaeological sites was attempted.

## J. Cumulative and Secondary Impacts

Overall, cumulative and secondary impacts from the proposed permit modification on the economic and social resources of the human environment in the immediate area would be minor due to the fact that the predominant use of the surrounding area would not change as a result of the proposed project. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in MAQP #3821-02.

# 8. SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS: The following comments have been prepared by the Department.

#### A. Social Structures and Mores

The facility would not cause disruption to any native or traditional lifestyles or communities (social structures or mores) in the area because the facility already exists in an industrial area.

#### B. Cultural Uniqueness and Diversity

Only minor impacts to the cultural uniqueness and diversity of the area would be anticipated as the site already exists. No additional employees are expected with the permit issuance. In addition, no new disturbance is planned. Therefore, the cultural uniqueness and diversity of the area would not likely be affected.

#### C. Local and State Tax Base and Tax Revenue

The proposed project would have little, if any impact on the local and state tax base and tax revenue due since the majority of equipment is already existing. Thus, only minor impacts to the local and state tax base and revenue would be expected from the employees and facility production. The impacts to local tax base and revenue would be expected to be minor since the facility already exists.

#### D. Agricultural or Industrial Production

The proposed project does not impact any new surface disturbance and therefore no impact on agricultural disturbance would be expected. Since the facility already exists, no significant increase in industrial production is expected with the proposed project.

#### E. Human Health

MAQP #3821-02 incorporates conditions to ensure compliance with all applicable air quality rules and standards. The rules and standards are designed to protect human health. There are no known impacts to human health due to this permitting action.

## F. Access to and Quality of Recreational and Wilderness Activities

Based on the information received from FS, no recreational activities or wilderness areas are near the proposed project site. No access to the public is available on the land where the proposed project would be located. No impacts to the access to and quality of the recreational and wilderness activities would be expected.

#### G. Quantity and Distribution of Employment

The proposed operation is continued to employ approximately 12 employees.

## H. Distribution of Population

No individuals would be expected to permanently relocate to this area as a result of this permit action. The proposed project would not impact the normal population distribution in the initial area of operation or any future operating site.

#### I. Demands for Government Services

Since the facility is existing, no increase in government services is expected.

#### J. Industrial and Commercial Activity

The operation of the facility would not be expected to impact industrial and commercial activity since the facility is existing.

#### K. Locally Adopted Environmental Plans and Goals

There are no known local Environmental plans and goals but if they exist, FS would need to comply with those.

## L. Cumulative and Secondary Impacts

The operations of the proposed project would not be expected to impact the economy of the surrounding area since the facility is existing. Socially this project would not have cumulative or secondary impacts to the nearby communities.

The proposed project information was not submitted to the Montana Sage Grouse Oversight Team (MSGOT) as the project is located in the exempt infrastructure layer and secondly, because no new surface disturbance is planned.

Recommendation: No Environmental Impact Statement (EIS) is required.

The current permitting action is for the addition of one new spray booth and the removal of one of the two chop hoop winders. MAQP #3821-02 includes conditions and limitations to ensure the facility would operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction:

<u>Individuals or groups contributing to this EA</u>: Department of Environmental Quality – Air Quality Bureau

EA prepared by: Craig Henrikson

Date: April 2, 2018