

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY  
OPERATING PERMIT TECHNICAL REVIEW DOCUMENT**

**Permitting and Compliance Division  
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Montana Fiberglass, Inc.  
Section 22, Township 15 North, Range 18 East  
2063 Casino Creek Drive  
Lewistown, MT 59457

The following table summarizes the air quality programs testing, monitoring, and reporting requirements applicable to this facility.

<b>Facility Compliance Requirements</b>	Yes	No	Comments
Source Tests Required	X		Method 9
Ambient Monitoring Required		X	
COMS Required		X	
CEMS Required		X	
Schedule of Compliance Required		X	
Annual Compliance Certification and Semiannual Reporting Required	X		As applicable
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
<b>Applicable Air Quality Programs</b>			
ARM Subchapter 7 Montana Air Quality Permitting	X		MAQP #4069-00
New Source Performance Standards (NSPS)		X	
National Emission Standards for Hazardous Air Pollutants (NESHAPS)		X	
Maximum Achievable Control Technology (MACT)	X		40 CFR 63, Subpart WWWW
Major New Source Review (NSR) – includes Prevention of Significant Deterioration (PSD) and/or Non-attainment Area (NAA) NSR		X	
Risk Management Plan Required (RMP)		X	
Acid Rain Title IV		X	
Compliance Assurance Monitoring (CAM)		X	
State Implementation Plan (SIP)	X		General SIP

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## SECTION I. GENERAL INFORMATION

### A. Purpose

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emission units affected by the operating permit proposed for this facility. The document is intended for reference during review of the proposed permit by the U.S. Environmental Protection Agency (EPA) and the public. It is also intended to provide background information not included in the operating permit and to document issues that may become important during modifications or renewals of the permit. Conclusions in this document are based on information provided by Montana Fiberglass, Inc. (MFI) in the significant modification application received on February 12, 2009, the original application received on March 27, 2007, and additional information submitted on May 18, 2007, and on June 8, 2007.

### B. Facility Location

MFI is located in Section 22, Township 15 North, Range 18 East, Fergus County, Montana. The physical address of the facility is 2063 Casino Creek Drive, Lewistown, Montana. MFI is located approximately 2000 feet south of Lewistown.

### C. Facility Background Information

MFI began operations at the Lewistown site in 2000, and at that time their business was primarily manufacturing stock tanks for ranching and agricultural aspects. Through the years, MFI's customer base and production expanded and in 2006 MFI applied for an air quality permit. MFI manufactures aboveground tanks, underground tanks, haul tanks and stock tanks; and all resins used for fiberglass reinforced products (FRP) are corrosion resistant and/or high-strength.

Montana Air Quality Permit (MAQP) #4069-00 was issued to MFI on August 21, 2007. At that time, MFI was comprised of two buildings and some ancillary facilities. MFI utilized the following equipment in FRP manufacturing: automatic chop hoop winder, four chopper guns, helix winder, one multi-color system gel coat unit, and two pressure feed rollers.

MFI was issued a final and effective Title V permit on February 20, 2008 (**Operating Permit #OP4069-00**).

### D. Current Permit Action

On February 12, 2009, the Department received a permit application proposing specific equipment modifications. Equipment permitted under OP4069-00 and MAQP #4069-00 included the following:

- 4 Chopper Guns
- 2 Pressure Feed Rollers
- 1 Helix Winder
- 1 Chop Hoop Winder
- 1 Gel Coat Spray Booth

As described in the permit application, MF proposes to change out one Pressure Feed Roller for one new Chopper Gun, add one Chopper Gun, and add an Impregnator Unit. The proposed equipment compilation would ultimately include the following:

- 6 Chopper Guns
- 1 Pressure Feed Roller
- 1 Impregnator Unit

- 1 Helix Winder
- 1 Chop Hoop Winder
- 1 Gel Coat Spray Booth

As with the equipment that was replaced, the proposed equipment is subject to applicable provisions of 40 CFR 63, Subpart WWWW – National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production.

**Operating Permit #OP4069-01** replaces Operating Permit #OP4069-00.

**E. Taking and Damaging Analysis**

HB 311, the Montana Private Property Assessment Act, requires analysis of every proposed state agency administrative rule, policy, permit condition or permit denial, pertaining to an environmental matter, to determine whether the state action constitutes a taking or damaging of private real property that requires compensation under the Montana or U.S. Constitution. As part of issuing an operating permit, the Department is required to complete a Taking and Damaging Checklist. As required by 2-10-101 through 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
		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.

## **F. Compliance Designation**

The last full compliance evaluation of MFI was conducted on August 29, 2007. MFI was found to be in compliance with the limits and conditions of MAQP #4069-00 at the time of the inspection. Title V Operating Permit #OP4069-00 had not yet been issued at that time.

## SECTION II. SUMMARY OF EMISSION UNITS

### A. Facility Process Description

MFI manufactures fiberglass FRP for a variety of purposes. All of the products are produced as corrosion-resistant or high-strength, open molding manufacture, via a combination of mechanical or manual methods. Volatile Organic Compound (VOC) emissions, primarily styrene, result from the product manufacturing process. Styrene is a listed Hazardous Air Pollutant (HAP).

There are six basic steps used in FRP production. The first step is fabrication of a plug, typically from wood. After generating the rough shape, the plug is coated with primer or polyester gel coat to achieve the desired finish. 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 prepared for production by waxing the surface with the mold release wax.

The next step is to apply polyester gel coat on parts requiring colored surface or high gloss. The gel coat unit is an external mix gun that mixes polyester gel coat and catalyst outside the gun using high volume/low pressure (HVLP) spray system to ensure that materials do not atomize. The primary chemicals used in polyester gel coats are styrene monomer, silicon dioxide, methyl methacrylate, and unsaturated polyester resin. Parts are usually gel coated in a booth and remain there to cure, or are moved outside of the booth for curing. Laminate structure is applied to the gel coated surface, or to the mold (when a finish is not required). Generally laminate is applied by hand, chopper gun, or pressure feed rollers. Acetone, which is not a VOC, is used for cleaning the application equipment.

### B. Emission Units and Pollution Control Device Identification

The emission units regulated by this permit are as follows (ARM 17.8.1211):

Emissions Unit ID	Description	Pollution Control Device/Practice
EU001	Building Exhaust (six chopper guns, one pressure feed roller, one impregnator unit, one helix winder, one chop hoop winder, and one gel coat spray booth)	None

### C. Categorically Insignificant Sources/Activities

The Administrative Rules of Montana (ARM) 17.8.1201(22)(a) defines an insignificant emissions unit as one that emits less than 5 tons per year of any regulated pollutant, has the potential to emit less than 500 pounds per year of lead or any hazardous air pollutant, and is not regulated by an applicable requirement other than a generally applicable requirement.

MFI did not provide a list of insignificant sources or activities. Therefore, this permit identifies no insignificant activities. Because there are no requirements to update such a list, the status of such emission units or activities may change.

## SECTION III. PERMIT CONDITIONS

### A. Emission Limits and Standards

The manufacturing of FRP at MFI utilizes resins that contain styrene. VOC emissions, primarily styrene, result from the manufacturing process. Styrene is a listed HAP. All materials produced at MFI were characterized as “corrosion-resistant and/or high strength” due to properties for each product. At the present time, all resins used are considered “non-suppressed”.

The VOC emissions for this facility are limited to 48.4 tons during any rolling 12-month time period (ARM 17.8.752). In addition, this facility shall not exceed the applicable organic HAP emission limits listed in Table 3 of 40 CFR 63, Subpart WWWW on a 12-month rolling basis. This facility was characterized as open-molding, corrosion-resistant, and/or high-strength, and the following limits apply: 113 pounds HAP/ton of resin (lb/ton) for mechanical resin application, 123 lb/ton for manual resin application, 171 lb/ton for filament, and 605 lb/ton for gel coat application.

MFI shall comply with all applicable standards and limitations contained in 40 CFR 63, Subpart WWWW, including work practice standards as specified in Table 4 of that subpart.

### B. Monitoring Requirements

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods required under applicable requirements are contained in operating permits. In addition, when the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirements for testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance do not require the permit to impose the same level of rigor for all emission units. Furthermore, they do not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. When compliance with the underlying applicable requirement for an insignificant emissions unit is not threatened by lack of regular monitoring and when periodic testing or monitoring is not otherwise required by the applicable requirement, the status quo (**i.e., no monitoring**) will meet the requirements of ARM 17.8.1212(1). Therefore, the permit does not include monitoring for insignificant emission units.

The permit includes periodic monitoring or recordkeeping for each applicable requirement. The information obtained from the monitoring and recordkeeping will be used by the permittee to periodically certify compliance with the emission limits and standards. However, the Department may request additional testing to determine compliance with the emission limits and standards.

### C. Test Methods and Procedures

The operating permit may not require testing for all sources if routine monitoring is used to determine compliance, but the Department has the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may elect to voluntarily conduct compliance testing to confirm its compliance status.

**D. Recordkeeping Requirements**

The permittee is required to keep all records listed in the operating permit as a permanent business record for at least 5 years following the date of the generation of the record.

**E. Reporting Requirements**

Reporting requirements are included in the permit for each emissions unit and Section V of the operating permit "General Conditions" explains the reporting requirements. However, the permittee is required to submit semi-annual and annual monitoring reports to the Department and to annually certify compliance with the applicable requirements contained in the permit. The reports must include a list of all emission limit and monitoring deviations, the reason for any deviation, and the corrective action taken as a result of any deviation.

**F. Public Notice**

In accordance with ARM 17.8.1232, a public notice was published in the *Lewistown News-Argus* on or before **July 15, 2009**. The Department provided a 30-day public comment period on the draft operating permit from **July 15, 2009**, to **August 14, 2009**. ARM 17.8.1232 requires the Department to keep a record of both comments and issues raised during the public participation process. No comments were received during the public comment period.

**Summary of Public Comments**

Person/Group Commenting	Comment	Department Response
No comments were received.		

**G. Draft Permit Comments**

**Summary of Permittee Comments**

Permit Reference	Permittee Comment	Department Response
No comments were received.		

**Summary of EPA Comments**

Permit Reference	EPA Comment	Department Response
No comments were received during comment period.		

#### **SECTION IV. NON-APPLICABLE REQUIREMENT ANALYSIS**

MFI did not request a shield from any of the air quality Administrative Rules of Montana or federal regulations (pursuant to ARM 17.8.1214). Therefore, no further analysis of non-applicable requirements is necessary.

## SECTION V. FUTURE PERMIT CONSIDERATIONS

### A. MACT/NESHAP Standards

By definition, the owner or operator of a composite fabrication plant that is a major source of HAPs is subject to 40 CFR 63, Subpart WWWW-Reinforced Plastic Composites Production MACT. Major sources for HAPs are defined as those that emit more than 10 tons per year (TPY) of a single HAP, or 25 TPY of multiple HAPs. This MACT became effective on April 23, 2003. MFI manufactures FRP and is categorized as a *Reinforced plastic composites production* facility. By definition, *Reinforced plastic composites production* refers to manufacturing products and molding compounds that use thermoset resins or gel coats containing styrene. Based on company information and calculations using EPA emission factors, the Department determined that MFI is a major source of HAPs and is subject to the provisions of 40 CFR 63, Subpart WWWW.

### B. NSPS Standards

As of the issuance date of this permit, the Department is unaware of any currently applicable or future NSPS Standards that may be promulgated that will affect this facility.

### C. Risk Management Plan

As of the issuance date of this permit, this facility does not exceed the minimum threshold quantities for any regulated substance listed in 40 CFR 68.115 for any facility process. Consequently, this facility is not required to submit a Risk Management Plan.

If a facility has more than a threshold quantity of a regulated substance in a process, the facility must comply with 40 CFR 68 requirements no later than June 21, 1999; 3 years after the date on which a regulated substance is first listed under 40 CFR 68.130; or the date on which a regulated substance is first present in more than a threshold quantity in a process, whichever is later.

### D. Compliance Assurance Monitoring (CAM) Applicability

An emitting unit located at a Title V facility that meets the following criteria listed in ARM 17.8.1503 is subject to Subchapter 15 and must develop a CAM Plan for that unit:

- The emitting unit is subject to an emission limitation or standard for the applicable regulated air pollutant (other than emission limits or standards proposed after November 15, 1990, since these regulations contain specific monitoring requirements);
- The emitting unit uses a control device to achieve compliance with such limit; and
- The emitting unit has potential pre-control device emissions of the applicable regulated air pollutant that are greater than major source thresholds.

MFI does not currently have any emitting units that meet all the applicability criteria in ARM 17.8.1503, and is therefore not currently required to develop a CAM Plan.