



## DEPARTMENT OF NATURAL RESOURCES

## MISSOURI AIR CONSERVATION COMMISSION

## PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **052009-007** Project Number: 2007-09-005

Parent Company: MEP Aquisition Corporation

Parent Company Address: 1401 Tower Road, Lebanon, MO 65536

Installation Name: Marine Electrical Products

Installation Address: 1401 Tower Road, Lebanon, MO 65536

Location Information: Laclede County, S13, T34N, R16W

Application for Authority to Construct was made for:  
Construction of a new fiberglass boat component manufacturing plant. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

- 
- Standard Conditions (on reverse) are applicable to this permit.
- Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

MAY 11 2009

EFFECTIVE DATE

  
 DIRECTOR OR DESIGNEE  
 DEPARTMENT OF NATURAL RESOURCES

## STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

**You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review.** In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located with 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

Page No.	3
Permit No.	
Project No.	2007-09-005

#### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

*The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."*

Marine Electrical Products  
Laclede County, S13, T34N, R16W

1. Emission Limitation
  - A. Marine Electrical Products shall emit less than 10.0 tons of styrene from the entire installation in any consecutive 12-month period.
  - B. Attachment A, or equivalent forms approved by the Air Pollution Control Program, shall be used to demonstrate compliance with Special Condition 1(A). Marine Electrical Products shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include Material Safety Data Sheets (MSDS) for all materials used in this equipment.
  - C. Marine Electrical Products shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of the month during which the records from Special Condition 1(B) indicate that the source exceeds the limitation of Special Condition 1(A).
2. Solvent Housekeeping Requirements  
Marine Electrical Products shall keep the ink solvents and cleaning solutions in sealed containers whenever the materials are not in use. Marine Electrical Products shall provide and maintain suitable, easily read, permanent markings on all inks, solvent and cleaning solution containers used with this equipment.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (5) REVIEW

Project Number: 2007-09-005  
Installation ID Number: 105-0050  
Permit Number:

Marine Electrical Products  
1401 Tower Road  
Lebanon, MO 65536

Complete: September 4, 2007  
Reviewed: November 9, 2007

Parent Company:  
MEP Aquisition Corporation  
1401 Tower Road  
Lebanon, MO 65536

Laclede County, S13, T34N, R16W

REVIEW SUMMARY

- Marine Electrical Products has applied for authority to construct a new fiberglass boat component manufacturing plant.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. The HAP of concern from this process styrene.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- The Maximum Achievable Control Technology (MACT) standard, 40 CFR Part 63, Subpart WWWW, National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production does not apply to the proposed equipment since the installation is not a major source of HAPS.
- No air pollution control equipment is being used in association with the new equipment.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of styrene are conditioned to de minimis source levels.
- This installation is located in Laclede County, an attainment area for all criteria air pollutants.
- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].

- Ambient air quality modeling was not performed for this review. Since a MACT applies to the styrene emissions, screen modeling was not performed. The potential emissions of all remaining HAPs are less than their respective Screen Modeling Action Levels (SMAL).
- Emissions testing is not required for the equipment.
- No Operating permit is required for the installation.
- Approval of this permit is recommended with special conditions.

### INSTALLATION DESCRIPTION

Marine Electrical Products, Inc., located at Laclede County, operates an electrical shroud (dashboard) manufacturing facility for small fishing and pleasure boats. The fiberglass or plastic shrouds are fitted with instrumentation such as speedometers, gas gages and switches. The assembled shroud has all the necessary instrumentation and wiring for the make and model of boat it will be installed in at the boat manufacturing facility.

Originally, all the fiberglass shrouds were manufactured at the facility located at 22468 Pleasant Drive (FID 105-0037), which was destroyed by fire on March 5, 2007. The existing installation was a synthetic de minimis source prior to the fire. Marine Electric Products, Inc. is currently proposing to construct a new production facility with all new equipment next to their existing plant at 1401 Tower Road. Work at the existing plant on Tower Road consists of installing the electrical equipment into the shrouds. There are no existing emission points at the Tower Road plant. The following permits have been issued to the Pleasant Drive and Tower Road locations of Marine Electrical Products from the Air Pollution Control Program.

Permit Number	Description
102001-012	Construction of a resin booth, paint booth and cure oven

During a site survey conducted on September 27, 2007, the regional office issued the Notice of Violation (NOV) 12269SW for construction prior to receiving a permit.

### PROJECT DESCRIPTION

Marine Electric Products, Inc. has applied for authority to install a fiberglass shroud (dashboard) manufacturing plant for small pleasure boats at Lebanon, Missouri. This manufacturing plant consists of four (4) resin lay-up spray booths (EP01 - EP03A&B), and a paint booth and coating oven heater (EP04).

The fiberglass shrouds are manufactured in one of four resin spray booths, using a Mechanical Non-Atomized Spray Gun. The maximum hourly design rate (MHDR) of each booth is 0.27 tons of resin processed per hour, and the resin consists of 31% styrene. After the application of resin, molds are rolled and brushed to evacuate air and

to get resin into small areas of the mold. Parts are then removed from the spray room and allowed to air dry. Marine Electric Products, Inc. uses Super Blue, S-280 and SS1700 for cleanup of equipment and molds.

The fiberglass shrouds are painted in a paint booth (EP04) with an air assisted airless spray gun. Based on production rate change-over, the MHDR of the booth is 0.48 gallons per hour. The paint material consists of 83% paint, 8.33% hardener and 8.33 % reducer. After painting, shrouds are cured in a propane-fueled oven heater rated at 0.78 MMBtu/hr.

### EMISSIONS/CONTROLS EVALUATION

Styrene is the main pollutant of concern in this project. The emission factor of styrene for EP01-EP03A&B is calculated using the method described in the Unified Emissions Factors for Open Molding of Composites (July 23, 2001). Volatile Organic Compounds (VOC) and small amounts of ethyl benzene, toluene and xylene are emitted from the paint booth. The potential emissions from the paint booth and oven dryer (EP04) were determined by mass balance computations derived from applicable Material Safety Data Sheets (MSDS) and emission factors obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 1.5, *Liquefied Petroleum Gas Combustion* (10/96). Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year).

Existing potential emissions were not considered during this review since the equipment at the existing installation was destroyed by fire. Existing actual emissions were taken from the 2005 Emissions Inventory Questionnaire (EIQ) of the Pleasant Drive plant (105-0037). The applicant has requested a de minimis limit on styrene emissions to remain a de minimis source. Since all styrene emissions are considered to be VOC emissions, VOC emissions are indirectly limited to de minimis levels by the styrene limit. The following table provides an emissions summary for this project.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions (2005 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM <sub>10</sub>	15.0	N/A	N/A	0.05	N/A
SO <sub>x</sub>	40.0	N/A	N/A	10.10	N/A
NO <sub>x</sub>	40.0	N/A	N/A	1.63	N/A
VOC	40.0	N/A	1.87	368.20	N/A**
CO	100.0	N/A	N/A	0.22	N/A
HAPs	10.0/25.0	N/A	N/A	357.06	N/A**
Styrene	10.0	N/A	6.82	348.91	<10

N/A = Not Applicable

\*\*With the styrene limit, VOC and HAPs conditioned potential emissions are 29.28 tons per year and 18.15 tons per year, respectively.

## PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of styrene are conditioned to de minimis source levels.

## APPLICABLE REQUIREMENTS

Marine Electrical Products shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

### GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110*  
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required April 1 for the previous year's emissions.
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin, 10 CSR 10-6.170*
- *Restriction of Emission of Visible Air Contaminants, 10 CSR 10-6.220*
- *Restriction of Emission of Odors, 10 CSR 10-3.090*

### SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes, 10 CSR 10-6.400*
- *Restriction of Emission of Sulfur Compounds, 10 CSR 10-6.260*
- *Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating, 10 CSR 10-3.060*

## STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

---

Emily E. Wilbur  
Environmental Engineer

---

Date

### PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated August 28, 2007, received September 4, 2007, designating MEP Aquisition Corporation as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Unified Emission Factors for Open Molding of Composites, July 23, 2001.
- MSDS
- Southwest Regional Office Site Survey, dated September 27, 2007.



Mr. Bill Ledbetter  
Safety Director  
Marine Electrical Products  
1401 Tower Road  
Lebanon, MO 65536

RE: New Source Review Permit - Project Number: 2007-09-005

Dear Mr. Ledbetter:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files.

Operation in accordance with these conditions, your new source review permit application and with your operating permit is necessary for continued compliance.

The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Emily Wilbur at the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale  
New Source Review Unit Chief

KBH:ewk

Enclosures

c: Southwest Regional Office  
PAMS File 2007-09-005

Permit Number: