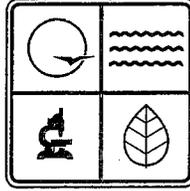


STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI AIR CONSERVATION COMMISSION



PERMIT BOOK

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: **11 2 0 0 6 - 0 1 1** Project Number: **2006-07-015**

Owner: **Tracker Marine LP**

Owner's Address: **2500 East Kearney, Springfield, MO 65803**

Installation Name: **Tracker Marine – Clinton Plant**

Installation Address: **1275 Golden Drive, Clinton, MO 64735**

Location Information: **Henry County, S35, T42, R26**

Application for Authority to Construct was made for:

Installation of a closed molding operation. This review was conducted in accordance with Section (5), 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 (listed as attachments starting on page 2) are applicable to this permit.

NOV 16 2006

EFFECTIVE DATE

Steven J. Jula
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. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the 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 within 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 as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, 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 Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

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 Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

Page No.	2
Permit No.	
Project No.	2006-07-015

SPECIAL CONDITIONS:

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

Tracker Marine - Clinton Plant
Henry County, S35, T42, R26

1. Superseding Condition

The conditions of this permit supersede all special conditions found in the previously issued construction permit (Permit Number 1092-009, 2020-31-5, 1092-009A with project number 2020-0031-006, and 1092-009B with project number 2020-0031-007) from the Air Pollution Control Program.

2. VOC Emission Limitation

- A. Tracker Marine – Clinton Plant. shall emit less than 250 tons of Volatile Organic Compounds (VOCs) 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 Conditions 2.A., 2.B., and 2.C. Tracker Marine – Clinton Plant 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 the installation.
- C. Tracker Marine – Clinton Plant. shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 2.(B) indicate that the source exceeds the limitation of Special Conditions Number 2.A.

3. Paints, solvents, and cleaning solutions.

Tracker Marine - Clinton Plant shall keep all paints, solvents, and cleaning solutions in sealed containers whenever the materials are not in use. Tracker Marine - Clinton Plant shall provide and maintain suitable, easily read permanent markings on all paints solvents and cleaning solution containers used with this equipment.

Page No.	3
Permit No.	
Project No.	2006-07-015

SPECIAL CONDITIONS:

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

4. Continuing Nuisance Odor Situation –Corrective Action Plan Requirements

If a continuing situation of demonstrated nuisance odors exists in violation of 10 CSR 10-4.070, *Restriction of Emission of Odors*, the Director may require Tracker Marine - Clinton Plant to submit a corrective action plan within ten (10) days of the request (or alternate schedule if approved by the Director) that is adequate to timely and significantly mitigate the cause(s) of the odors. Tracker Marine - Clinton Plant shall implement any such plan immediately upon its approval by the Director. Failure either to submit such a corrective action plan if requested or to implement such a plan after approval by the Director shall be a violation of this permit.

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

Project No: 2006-07-015
Installation ID No: 083-0031
Permit No:

Tracker Marine - Clinton Plant
1275 Golden Drive
Clinton, MO 64735

Complete: July 26, 2006
Reviewed: September 20, 2006

Parent Company
Tracker Marine LP
2500 E. Kearney
Springfield, MO 65803

Henry County, S35, T42, R26

REVIEW SUMMARY

- Tracker Marine - Clinton Plant has applied for authority to install a closed molding manufacturing system (EP-10) for boats at the Clinton Missouri Plant.
- Hazardous air pollutant (HAP) emissions are expected from the proposed equipment. HAPs emitted will be styrene and methyl methacrylate (MMA). The HAP of concern from this process is styrene.
- None of the New Source Performance Standards (NSPS) applies to the proposed equipment.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) applies to the proposed equipment. The Maximum Achievable Control Technology (MACT) standard, 40 CFR Part 63, *National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing (VVVV)*, does apply to Tracker Marine-Clinton Plant since they manufacture boats. Also, *National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (PPPP)* is not applicable because the installation does not perform post-mold coating operations on personal watercraft and parts of personal watercraft.
- 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 VOCs are conditioned to below major levels. However, potential emissions of styrene and MMA are below de minimis levels.
- This installation is located in Henry 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 performed on styrene since potential emissions are above Section 112(g) proposed de minimis levels.
- Emissions testing are not required for the equipment.
- A revision to the Part 70 Operating Permit application is required for this installation within 1 year of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Tracker Marine - Clinton Plant, located in Henry County, operates a fiberglass boat manufacturing plant. At present Tracker Marine - Clinton Plant is an open molding installation for fiberglass, but this project is to add closed molding systems. Molding processes are either closed or open. Fiberglass means fibers or fiberglass reinforced plastic. This installation has a part 70 Operating permit and has a conditioned limit on VOC to below 250 tons per year. The plant has no control for VOC's.

Methyl ethyl ketone peroxide, gelcoat containing styrene, polyester resin containing styrene, chloroprene, and methyl methacrylate are the pollutants of concern. Acrylic modified gel coats are gel coats that contain methyl methacrylate and have different emissions characteristics than gel coats containing only styrene.

Closed molding techniques are compression, injection, pultrusion, continuous lamination, marble casting, bag molding and resin transfer. Open molding processes are hand lay-up, filament winding, and spray lay-up.

With open molding, a catalyzed gel coat is applied to a highly polished mold for the hull or deck of a boat. Following the gel coat application, alternate layers of catalyzed polyester resin and reinforcement material are applied. The resin is applied using a hand lay-up method or spray lay-up. Hand lay-up and spray lay-up are open mold processes. Hand lay-up uses no mechanical spraying or chopping equipment for depositing the resin or glass reinforcement. Hand lay-up is a room temperature curing process where a glass mat soaked in resin is applied by hand to the hull mold. Each reinforcement layer is "wetted out" with resin and then rolled out to remove air pockets. The process continues until the desired thickness is achieved. Spray lay-up uses mechanical spraying and chopping equipment for depositing the resin and glass reinforcement. Chopping equipment consists of a spray gun attachment that chops glass fiber into predetermined lengths and projects it to merge with the resin mix stream. This causes the resin and chopped glass to be deposited simultaneously to the desired thickness on the mold surface (or on the gel coat that was applied to the mold). Methyl Ethyl Ketone Peroxide (MEKP) is combined with the polyester resin in order to initiate polymerization. After the resin has cured, the hulls and decks are removed from the molds.

Fugitive dust emissions results from the sanding and cutting of excess edges during

joining of the hull and deck. Total suspended particulate and small pieces of fiberglass are vacuumed by a DC 2500 Campaign dust extractor which is linked to a cyclone separator. Final assembly uses a chloroprene rubber glue, to fasten carpet to the boat deck. Acetone is the primary chemical used for cleaning the molds, gel coat, polyester resin spray equipment and other tools. The following permits have been issued to Tracker Marine - Clinton Plant from the Air Pollution Control Program.

Table 1: Air Pollution Control Program Permits issued to 083-0031.

Permit Number	Description
1092-009	Fiber glass boats production using hand laid and chop gun applied fiberglass
1092-009A	Increase production VOC limit at less than 250 tons per year
1092-009B	Stack Criteria
OP2000-014	Part 70 Operating Permit

PROJECT DESCRIPTION

Tracker Marine - Clinton Plant has applied for authority to install a closed molding system (EP-10). They are installing several types of closed molding operations. Resin Transfer Molding (RTM), Vacuum Assist Resin Transfer Molding (VARTM), Resin Infusion Molding (RIM) and Bag molding are the closed molding operations that will be installed.

Resin Transfer Molding (RTM) is a low pressure closed molding process. It is carried out at room temperature. In the process, continuous or chopped strand glass fibermats are placed in a mold, with catalyzed resin injected after the mold is closed. Because no resin surfaces are exposed to air during curing, styrene emissions from this molding process are greatly reduced as more styrene is retained in the mixture and added to the polymer as it cures, instead of volatilizing out of the mixture. Gel coats, which are often used with resin transfer molding are applied to the molds (which may be reinforced plastic). After the gel coat cures, glass reinforcement is placed in the mold and resin injected. This molding process is best suited for intermediate volume production of small to mid sized components.

Vacuum Assist Resin Transfer Molding (VARTM) is identical to RTM except the mold vents are connected to a vacuum source. The additional force of vacuum "assists" with the flow of resin through the preform, and reduces the size and number of air bubbles in the laminate.

Resin Infusion Molding (RIM) is identical to VARTM except that resin is not pumped into the mold cavity under pressure. Instead, the catalyzed resin is drawn into the mold by force of vacuum applied to the mold vents. Some RIM projects use one ridged half-mold and one flexible half-mold. Atmospheric pressure forces the flexible half-mold against the ridged half-mold during the infusion process.

Bag molding is conducted in sealed molds at room temperature. The process is initiated with gel coat applied to the surface of the mold. Glass reinforced fibers and other materials are carefully cut to fit the mold and placed over it. Catalyzed resin is sprayed, pumped or poured over the lay-up. Once the layup materials are in place, the exposed area is covered with special layers of plastic which are sealed to the edges of the mold.

The plant has indicated that the closed molding operation will replace open molding eventually. However, which process and equipment will be shut down has not been determined at this time. The closed molding processes will lead to lower plant emissions as work is transferred from the open molding process. The Maximum Hourly Design Rate is based on 2760 pounds of infusion resin per work day. This total is based on building three (3) NX482 a day at 300 pounds of resin per boat, three (3) NX 591 a day at 320 pounds of resin per boat, and two (2) 21 foot Nitro's a day at 450 pounds of resin per boat. $((3 \times 300\#)+(3 \times 320\#) + (2 \times 450\#) = 2760 \text{ pounds})$

EMISSIONS/CONTROLS EVALUATION

Styrene is the main pollutant of concern in this project. The emission factor of styrene is calculated using the method described in 1999, Composite Fabricators Association (CFA) Unified Emissions Factors (UEF). Emissions from the closed mold process (EP-10) have generally been reported at one percent (1%) of the styrene weight. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year). The following table provides an emissions summary for this project.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions (Note 1)	Existing Actual Emissions	Potential Emissions of the Application	Installation Conditioned Potential
PM ₁₀	15.0	N/A	N/A	0.0	N/A
SO _x	40.0	N/A	N/A	0.0	N/A
NO _x	40.0	N/A	N/A	0.0	N/A
VOC	40.0	<250	N/A	4.68	<250
CO	100.0	N/A	N/A	0.0	N/A
HAPs	10/25.0	N/D	N/A	2.34	N/A
Styrene	10.0	N/D	N/A	2.09	N/A
Methyl Methacrylate (MMA)	10.0	N/D	N/A	0.25	N/A

N/A = Not Applicable

Note 1: In permit 1092-009B an installation wide 250 ton limit on VOC's was applied.

All of the HAPs in this application are also VOC's and are counted in the VOC totals. The reason this project needed a permit was because the amount of HAPs emitted, 0.53 pound per hour, is above the exemption level of 0.5 pound per hour found in 10 CSR 10-6.061, *Construction Permit Exemptions*, (3)(A)3.B.

Several no permit required letters (below permitting thresholds) exist for equipment installed at this installation since the permit 1092-009B was issued. This permit will establish those no permit required sources as under the 250 ton limit for VOC.s. No control devices are being used to control emissions in this project. The emissions are ventilated through one large exhaust fan.

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 HAP and VOC emissions are below their respective de minimis levels for this project.

APPLICABLE REQUIREMENTS

Tracker Marine - Clinton Plant 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.
- *Operating Permits*, 10 CSR 10-6.065
- *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

- *Maximum Achievable Control Technology (MACT) Regulations*, 10 CSR 10-6.075, The Maximum Achievable Control Technology (MACT) standard, 40 CFR Part 63, *National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing (VVVV)*, does apply to Tracker Marine-Clinton Plant since they manufacture boats. Also, *National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (PPPP)* is not applicable because the installation does not perform post-mold coating operations on personal watercraft and parts of personal watercraft.

AMBIENT AIR QUALITY IMPACT ANALYSIS

Based on calculation, the emission rate for styrene was 0.48 pounds per hour. Ambient air quality modeling was performed to determine the ambient impact of styrene because the potential emissions for styrene exceed the 112(g) de minimis levels of 1.0 tons per year. For purposes of this screening analysis, the Screen 3 modeling program was utilized using the following stack parameters submitted in the application: diameter of 4.0 feet, a height of 20 feet, a flow rate of 5,000 cubic feet per minute, and exhaust at ambient air temperature. The following table lists the modeled impacts and the Risk Assessment Levels (RAL) for styrene in units of micrograms per cubic meter.

Table 3: Styrene Modeling Results

Pollutants	Modeled Impact	Risk Assessment Level	Time Period
Styrene	44.52 $\mu\text{g}/\text{m}^3$	2240	24-hour
	5.09 $\mu\text{g}/\text{m}^3$	333	Annual

As indicated in the Table 3, styrene emissions from the equipment added under this permit is expected to comply with the RAL.

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.

Tim Hines
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated July 03, 2006, received July 07, 2006, designating Tracker Marine - Clinton Plant as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Composite Fabricators Association (CFA), *Unified Emissions Factors* (1999).
- Kansas City Regional Office Site Survey dated July 24, 2000.
- MSDS, submitted by applicant.

Mr. Larry D. Clutter
Environmental Service Manager
Tracker Marine - Clinton Plant
2500 East Kearney
Springfield, MO 65803

RE: New Source Review Permit - Project No. 2006-07-015

Dear Mr. Clutter:

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 amended 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 me at (573) 751-4817, or you may write to me at the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:thl

Enclosures

c: Kansas City Regional Office
PAMS File 2006-07-015
Permit Number: