

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection**

M429526496

FACILITY: R J MARSHALL CO		SRN / ID: M4295
LOCATION: 14331 SCHAEFER HWY, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Stephanie Nichols , Technical Administrator		ACTIVITY DATE: 08/20/2014
STAFF: Todd Zynda	COMPLIANCE STATUS: Compliance	
SUBJECT: 2014 Targeted Inspection		SOURCE CLASS: MINOR
RESOLVED COMPLAINTS:		

REASON FOR INSPECTION: Targeted Inspection

INSPECTED BY: Todd Zynda, AQD

PERSONNEL PRESENT: Rick Marshall; Plant Manager; Stephanie Nichols, Technical Administrator

FACILITY PHONE NUMBER: 313-270-5308

FACILITY WEBSITE: www.rjmarshall.com

FACILITY BACKGROUND

R.J. Marshall Company (R.J. Marshall) Detroit Division processes solid surface slabs through cutting and crushing. The solid surface slabs are composed of unsaturated polyester resin and alumina trihydrate. The slabs are processed to various granular sizes (fines, powders, etc) and then shipped to third parties or to other R.J. Marshall facilities for the production of solid surface counter tops. The 10,000 square foot facility is located at 14331 Schaefer Highway, Detroit, Michigan and currently operates eight to ten hours a day, five to six days a week. The facility currently has four employees. Commercial and industrial property surrounds the facility. A rail line is located immediately adjacent, to the south of the facility. The nearest residential property is located approximately 600 feet west of the facility.

PROCESS OVERVIEW

The facility processes solid slabs of unsaturated polyester resin and alumina trihydrate. The main processing area contains a crushing and screening line and a knife mill line. The crushing and screening line processes solid surface slabs through a chipper (flake breaker), where they are broken down into smaller pieces. The smaller pieces are further processed and ground into a finer material. The material is screened for size and then bagged for shipment in bulk bags (one ton capacity). Some material is also shipped in 50 pound paper bags. The knife mill line also processes smaller pieces of solid slab material through cutting/grinding. Processed material for the knife mill line is also bagged for shipment offsite. Particulate matter from the knife mill line and crushing and screening line is controlled by a baghouse dust collector. The pulse jet baghouse was manufactured by General Resource (model No. 15050.8) and is rated at 7500 cubic feet per minute.

In addition to the processing lines, the facility also operates a small boiler used for heat in the winter, and a testing laboratory area.

COMPLAINT/COMPLIANCE HISTORY

The most recent inspection of the facility occurred on August 12, 2010. At that time, the company was determined to be in compliance.

There are no complaints for this facility on file.

OUTSTANDING CONSENT ORDERS

None

OUTSTANDING VIOLATION NOTICES

None

INSPECTION NARRATIVE

On August 19, 2014 the Michigan Department of Environmental Quality (MDEQ) Air Quality Division (AQD) inspector, Mr. Todd Zynda, conducted an announced level 2 inspection of R.J. Marshall. During the inspection, Mr. Rick Marshall, Plant Manager, and Ms. Stephanie Nichols, Technical Administrator, provided information and a tour of facility operations relating to air quality permits and regulations. The inspection was conducted to determine the facility's compliance with the Natural Resources and Environmental Protection Act (NREPA), Act 451, Part 55 and Wayne County Installation Permits C-6875, C-10195 and C-10220.

At 9:00 AM, AQD staff arrived onsite and performed outside observations. Visible emissions were not observed at the time of the inspection. A light (level 1) plastic odor was identified in the parking area for the facility. Upon entering the facility, Mr. Zynda entered the facility, stated the purpose for the inspection, and was greeted by Mr. Marshall and Ms. Nichols. During the opening meeting the facility operations and Wayne County Installation Permit requirements were discussed. During the open meeting a facility inspection checklist (Attachment A) was provided to Mr. Marshall and Ms. Nichols.

During the opening meeting, Wayne County Installation Permits were discussed. According to Ms. Nichols, the alumina blending operation (C-6875) has been discontinued and is no longer in operation at the facility. There was mutual agreement that this permit will be voided. In addition, some of the permit to install (PTI) exempt equipment was discussed. According to Ms. Nichols, the "fines grinding system" was removed from the facility. The smaller baghouse dust collector associated with the "fines grinding system" is still onsite at the facility, but is no longer in use.

During the opening meeting, Ms. Nichols provided the required records for the Wayne County Installation Permits C-10195 and C-10220 (Attachment B).

Following an introductory meeting, a tour of the facility was conducted. The tour began with observation of the main processing area. The knife mill and crushing and screening lines were observed. While the facility is dusty, the duct work controlling dust from both the crushing line and knife mill line appeared to be in good operating condition, with sufficient negative pressure to control emissions which would otherwise go into the general in-plant environment. Following observation of the processing lines, the baghouse and blower were observed. According to Mr. Marshall the baghouse is serviced on an as needed basis. Facility operators monitor the baghouse through a magnehelic pressure gage. During the inspection the gage read 2 inches water. Additionally the pulse jet bag house and associated exhaust stack were observed from the outside. Emissions and evidence of emissions (fallout) were not observed outside of the facility.

Inside the facility, the former location of the fines grinding system was observed. The duct work and baghouse for the fines grinding system were still intact, while the grinding equipment has been removed from the facility.

Next, a small natural gas boiler was observed. The boiler was not in operation at the time of inspection. According to Mr. Marshall the boiler only operates in the winter months, to provide heating to keep the building above freezing. The capacity of the small boiler could not be verified during the inspection, but based on the physical size of the boiler, it is likely exempt from PTI requirements under Rule 282(b).

Finally, a testing laboratory was observed. The testing area houses a grinding test area, and dry chemical spray booth. According to Mr. Marshall the dry chemical spray booth is no longer in operation. The spray booth was equipped with particulate control filters (which needed replacement) and exhausts vertically to an individual stack at roof level. It was recommended that if operation of the spray booth begins again in the future, that the filters be replaced and properly installed. Within the grinding test lab, small 5 inch by 5 inch solid surface slab material is grinded and then tested for physical properties. Emissions from the grinding equipment appear to be exempt from PTI requirements under Rule 283.

APPLICABLE RULES/PERMIT CONDITIONS

For brevity, permit conditions and the language of federal and state rules have been paraphrased.

Wayne County Installation Permits C-10195 and C-10220

SC 17. UNKNOWN. Particulate matter emission rate from the artificial marble (polyester resin filled with hydrated alumina) crushing and screening line, hereinafter "marble processing line", controlled by baghouse dust

collector shall not exceed 0.005 grain per dry standard cubic feet exhaust air, 0.33 pound per hour, nor 0.33 ton per year. The emission limits appear to be based on the design calculations for the processing line and baghouse dust collector. It does not appear that testing has been conducted, but it is generally assumed that the baghouse is controlling emissions to less than the specified limits. Based on the permit language, the facility is not required to maintain records of particulate matter emissions.

SC 18. IN COMPLIANCE. Shall not operate the processing line for more than 2,000 hour per year. A written log of the hours shall be made available. During the inspection, the facility provided records of the operation for 2012, 2013 and 2013 (Attachment B). During each of these years the processing line did not operate more than 2,000 hours.

SC 19. IN COMPLIANCE. There shall be no visible emissions from the marble processing line. Visible emission were not observed during the inspection.

SC 20. IN COMPLIANCE. Shall operate the marble processing line with the baghouse dust collector installed and operating properly. During the inspection the baghouse dust collector appeared to be operating correctly.

SC 21. IN COMPLIANCE. The disposal of collected dust from the baghouse dust collector shall be performed in a manner which minimizes the introduction of air contaminants to the outer air. During the inspection it was observed that the collected dust is properly handled and captured.

SC 22. IN COMPLIANCE. The exhaust gases from the baghouse dust collector shall be discharged unobstructed vertically upwards from a stack with a maximum diameter of 10 inches and not less than 38 feet above ground level. The stack appeared to be meet the conditions of the permit during the inspection. According to Mr. Marshall the stack has never been modified since initial installation.

Permit to Install Exempt Equipment

Knife Mill

The knife mill appears to be exempt from PTI requirements under the following Rule:

R336.1285(l)(vi): "The requirement to obtain a permit to install does not apply to equipment for carving, cutting, routing, turning, drilling, machining, etc ... plastics which meets the following. Equipment has externally vented emissions controlled by an appropriately designed and operated fabric filter collector.

Natural Gas Boiler

The facility boiler appears to be exempt from PTI requirements under the following Rule:

R336.1282(b)(i): "The requirement to obtain a permit to install does not apply to fuel burning equipment which is used for space heating... which only burns natural gas and has a rated heat input of not more than 50 million British thermal units (MMBtu) per hour."

Testing Laboratory

Equipment within the testing laboratory appear to be exempt from PTI requirements under the following Rule:

R336.1283(b): "The requirement to obtain a permit to install does not apply to laboratory equipment."

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:


Not applicable.

MAERS REPORT REVIEW:

The facility is not required to submit Michigan Air Emissions Reporting System (MAERS).

FINAL COMPLIANCE DETERMINATION:

At the time of the inspection, the facility was in compliance with current federal and state air quality regulations and Wayne County Installation Permits C-10195 and C-10220. Wayne County Installation Permit C-6875 will be voided as the equipment has been removed.

NAME 

DATE 8/21/14

SUPERVISOR W. VM