

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

N258833014

FACILITY: Michigan Rubber Products		SRN / ID: N2588
LOCATION: 1200 Eighth Ave, CADILLAC		DISTRICT: Cadillac
CITY: CADILLAC		COUNTY: WEXFORD
CONTACT:		ACTIVITY DATE: 01/14/2016
STAFF: Kurt Childs	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: PTI 495-97 compliance inspection.		
RESOLVED COMPLAINTS:		

On January 14, 2016 I conducted an inspection of Michigan Rubber Products, Inc. (MRP) to determine compliance with PTI 495-97A and the Air Pollution Control Rules. MRP is a minor source with regards to air pollution regulation. The potential to emit (PTE) particulate matter and VOC's is less than 100 tons per year and the PTE for hazardous air pollutants is less than 10 tons per year individually or 25 tons per year combined. MRP manufactures rubber parts for the automotive industry, primarily air intake boot assemblies and hoses. Some assembly of parts also takes place including installation of plastic components either manufactured on site or purchased from a vendor and installation of clamps and fasteners. Production processes include; transfer compression molding (plant 1), extrusion and curing (Plant 3), Injection molding (Plant 2), and plastic blow molding (Plant 7).

At the time of the inspection the weather was overcast, 20 degrees, light southeast winds. There were no visible emissions or odors from plant vents or stacks. I met with Mr. Chris Carpenter, Plant Manager and Ms. Lorraine Barnard, Technical Assistant. Mr. Carpenter accompanied me on the inspection and Ms. Barnard provided access to records. I provided Mr. Carpenter with the Environmental Inspections Brochure.

The MRP plant consists of two buildings with the offices, Plant 2 and Plant 7 located in the western building while Plants 1 and 3 are located in the eastern building. The Plant number references refer to the type of process. Plant 1 is transfer compression molding, Plant 2 is injection molding, plant 3 is extrusion/curing, Plant 7 is plastic blow molding. We began the inspection in plant 7.

Plant 7 houses several plastic blow molding machines that produce components for the air inlet boots. These machines appear to be exempt from the requirement to obtain a Permit to Install pursuant to R 336.1286(c).

Plant 2, located in the same building houses the injection molding process. This area of the plant is undergoing some transformation with older injection molding machines (permitted under PTI 495-97A) being replaced by new equipment. Two old 4 station rotating presses have been replaced by 8 individual presses in two stations and several other old presses have been removed or scheduled for removal. 12 new injection molding machines have been installed since 2013. Plant 2 was originally permitted for 26 injection molding machines. MRP has not applied for a new PTI for the injection molding machine changes.

The machines in Plant 2 all vent to the plant air but there are numerous roof vents to evacuate emissions. Many of the machines were in operation at the time of the inspection but visible emissions inside the plant were minimal.

Plant 1 houses the compression molding operations. This area was originally permitted for 29 compression molding machines. It does not appear there have been changes to the compression molding machines. Compression molding processes were in operation at the time of the inspection with minimal visible emissions inside the plant. Roof vents are also used to ventilate this area of the plant. The post cure oven and a burn off oven for cleaning molds are both located in Plant 2 and each is equipped with its own stack. Both ovens are natural gas fired. The post cure oven was permitted under PTI 495-97A, the burn off oven was installed without a permit and does not appear to meet the Rule 282 exemption for furnaces, ovens and heaters since burn-off ovens use direct not indirect heat. A Rule 290 exemption may be possible but the appropriate calculations and records would need to be maintained to demonstrate this.

Plant 3 is the extrusion area where rubber hose is manufactured. It includes the extruder, microwave cure oven, hot air cure oven and two steam heated autoclaves. There is also an 8,370,000 Btu natural

gas fired boiler. The cure ovens are equipped with stacks that vent directly outdoors. The microwave oven outlet is covered by a hood and stack that also vent through the roof.

PTI 495-97A contains particulate matter (PM) limits for both buildings in total (2.6 lbs/hr and 5.2 TPY) and separate PM emission limits for the processes in Plant 3:

Emission Unit	Pounds/1000 pounds exhaust gasses	Pounds/hour	Tons per Year
EUAUTOCLAVE	0.07	0.125	0.25
EUPOSTCURE	0.10	N/A	N/A
EUMICROWAVE	0.03	0.121	0.24
EUHOTAIRCURE	0.02	0.121	0.24

Additionally, there are nitrosamine emission limits applicable as follows:

Emission Unit ID	Emission Rate (lb/yr)
EUGVBLDG1(West Building)	0.070
EUGVBLDG1/3(East Building)	0.040
EUAUTOCLAVE	0.006
EUPOSTCURE	0.001
EUMICROWAVE	0.005
EUHOTAIRCURE	0.005

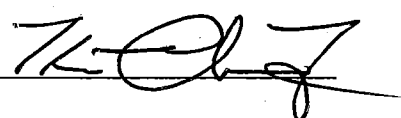
The PTI requires records be maintained of material usage (rubber production) but does not require emission calculations. Since MRP does not produce rubber, only parts made from rubber, this condition more likely refers to rubber throughput. Rubber for the processes is purchased from a sister company.

Ms. Barnard readily provided electronic records of the type and amount of rubber used each month and totals for the year. A partial page printout is attached for reference. MRP has a consultant, Mr. William Hilton of RCSI who assists them with recordkeeping.

The records available meet the requirements of PTI 495-97A but alone do not demonstrate compliance with the emission limits. MRP should use appropriate emission factors and hours of operation along with the material usage records to demonstrate compliance with the lb/hr and TPY limits.

MRP is a true minor source and is not required to report air emissions. They are also an area source with regard to NESHAP and, in regards to the Boiler MACT have an exempt gas fired boiler.

As a result of this inspection it appears that a PTI application should be submitted to reflect changes to the injection molding equipment and the addition of the burn off oven. Also, emission calculation records should be implemented to demonstrate compliance with the existing PM and Nitrosamine emission limits. Following the inspection I requested that MRP take these actions and provide a schedule for completion.

NAME  DATE 1-20-15 SUPERVISOR 