

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

B708124440

FACILITY: AUTOTEC		SRN / ID: B7081
LOCATION: 300 ALBERS RD, BRONSON		DISTRICT: Kalamazoo
CITY: BRONSON		COUNTY: BRANCH
CONTACT: Dan Norton , Manufacturing Engineering Manager		ACTIVITY DATE: 03/05/2014
STAFF: Dale Turton	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT:		
RESOLVED COMPLAINTS:		

Staff conducted an unannounced inspection at Douglas Autotech to determine compliance with Air Pollution Control (APC) Rules. A tour of the facility was provided by Dan Norton.

The facility's primary business is the production of steering columns for heavy duty vehicles.

During the inspection Staff observed the following processes.

Machining

Steel is cut and shaped with various machines including CNC, mills, saws, and presses. There is no outdoor exhaust for the machines. Any dust or cutting fluids are collected and exhausted indoors. The machining and oil mist eliminators are considered exempted from permitting under APC Rule 285(I)(vi)(B) since they exhaust inside the plant.

Model Shop

There is a small (2ft x 2ft) paint booth used on a non-production basis. This uses various aerosol spray cans of coatings. It is filtered and exhausted indoors. This is exempt from permitting by Rule 287(c) because of the small coating usage volume.

A Safety Kleen cold cleaner is used in this shop. It is a "sink over drum" style. This is being operated in compliance with Rule 707. Mineral spirits with a 148 flash point is being used in the unit.

Maintenance Tool Room

A Safety Kleen cold cleaner is used in this shop. It is a "sink over drum" style. This is being operated in compliance with Rule 707. Mineral spirits with a 148 flash is being used in the unit.

Welding

14 MIG welding stations are in this area. The machines are individually filtered and exhausted inside the plant. These are all exempt from permitting under Rule 285(i).

Washers

There is a two-stage washer and a four stage washer used to clean parts prior to painting. These use an aqueous cleaning product called DuBois 200. The stages are all heated by natural gas burners that are exhausted outdoors. The burners are permit exempt under Rule 282(b) and the washers / phosphate are exempt under Rule 285(I)(iii).

Coating Booths

A conveyerized line passes from the washer and drying stage, through a manual spray booth, then through an electrostatic booth, and to an oven.

Manual spray booth – The parts first pass through this booth for a light hand spray onto areas of the part which may be difficult for the electrostatic booth to properly coat. An HVLP gun is used to increase the transfer efficiency. Filters were in place and are regularly changed. A stack with an approximate diameter of 36 inches exhausts through the roof unobstructed vertically.

Electrostatic coating application booth - This is the main coating line used for coating the parts. This employs a rotating disk situated in a cylindrical shaped booth. The parts circle around the inside perimeter of the booth and electrostatically attract the coating to the surface. Filters were in place to control particulate emissions. The filters are replaced daily rather than relying on the installed differential pressure gauge to measure the pressure drop. The gauge was disconnected. A stack with an approximate diameter of 20 inches exhausts through the roof unobstructed vertically.

Purchasing records showed a total of 184 gallons of paint were received by the facility during 2013. The solvent thinner purchased was 55 gallons for the year. Since they don't purchase large quantities, it follows that they don't use large quantities. Assuming that use is fairly steady throughout the year, they use about 20 gallons per month. The coating is thinned at a 1 to 4 ratio. The thinner use was about 5 gallons a month. Rule 287(c) allows up to 200 gallons per month before a permit is required.

The MSDS for the one coating used (Satin Finish Black Baking Enamel) shows that the VOC content is 4.28 lbs/gallon. The MSDS for the thinner (SC150) shows that the VOC is about 7.3 to 7.5 lbs/gallon. If it is assumed that all of the coating and thinner purchased during 2013 was used, then total VOC emissions for the year are approximated at 1190 pounds.

Air Makeup Units

There are three units installed for general heating of the plant. These are all natural gas fired. The units are exempt from permitting under Rule 282(b).

NAME Dale Turton

DATE 3/11/14

SUPERVISOR MD 3/12/2014