

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

P017458266

FACILITY: Freedom Motors		SRN / ID: P0174
LOCATION: 740 Watkins Rd, BATTLE CREEK		DISTRICT: Kalamazoo
CITY: BATTLE CREEK		COUNTY: CALHOUN
CONTACT: Mike Chenoweth , Production Plant and Lean Manager		ACTIVITY DATE: 05/27/2021
STAFF: Amanda Chapel	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT:		
RESOLVED COMPLAINTS:		

On Thursday May 27, 2021 Air Quality Division's (AQD) Amanda Chapel (staff) conducted an announced air quality inspection at Freedom Motors located at 740 Watkins Road, Battle Creek, Calhoun County, Michigan. Due to the ongoing COVID-19 pandemic and Department guidance, this was an announced inspection to reduce the amount of time on site and interaction with employees. The purpose of the inspection was to determine the facility's compliance with all applicable state and federal air quality regulations.

Mr. Mike Chenoweth was the contact for this inspection. Freedom Motors is a manufacturer and dealer of modified handicap accessible vehicles. The facility purchases both new and used vehicles to convert as well as converts customer vehicles and outfits them with freedom motors technology. At the time of the last inspection, on December 9, 2010, the facility was in compliance with all state and federal air quality requirements. Since the last inspection, there was a complaint investigation completed regarding the plasma cutter, which was resolved in 2013. The facility operates under multiple exemptions and does not currently have a permit to install (PTI). Activities that are completed on site include metalworking, welding, coating, and plasma cutting.

The facility runs one shift per week, 7:00 - 3:30 or 6:00 - 4:30 during the summer. They employ approximately 72 people. When a car begins the conversion process, the bumpers and interiors are stripped off the vehicles. The vehicle is stripped down to metal, steering, and dashboard. The fuel tanks are removed. Parts fabrication is done on site. When the modified floors are complete and reinstalled, the newly fabricated parts. The vehicles are reassembled with the ramp and modified parts, removed technology added back in, and finished with paint and carpet. The vehicles are then cleaned and detailed then either they are returned to the customer or sold, like a dealership.

Metalworking operations on site include cutting, drilling, and grinding. This was in operation at the time of the inspection. These activities are vented in-plant and happen throughout the day during the fabrication process. These activities are exempt under Rule 285(2)(I)(vi)(B).

Welding operations were also operational during the inspection. Welding is also associated with the fabrication process as well as reassembling the vehicle after the fabricated parts are installed. These activities are vented in-plant and are exempt under Rule 285(2)(i).

The facility has a paint booth installed. They were doing painting on-site but since October 2020, have been outsourcing all painting operations to a contractor. There is no paint on site other than aerosol spray cans, or rattle cans. The facility continues to use the paint booth for painting parts with the rattle cans, which is exempt under Rule 287(2)(b). The filters in the coating booth looked

used and it was advised they be replaced. There were no obvious gaps in the filters. The facility was also advised that if they started using the coating booth for more traditional painting operations again, they need to keep records to show they are under 200 gallons/month to maintain compliance with the exemption. The facility also outsources powder coating of parts, as needed.

The facility uses spray glue to apply new carpet to the vehicles after they are ready for reassembly. An SDS was provided for the PB938 High Performance Spray Adhesive used on site. According to the SDS, it contains 49% VOC, with ingredients including acetone, hexane, heptane, and toluene. The facility provided purchase records of adhesive usage over the past 12 months.

According to purchase records, from December 2020 to May 2021, the facility operated approximately 111 days. In this time, the facility purchased 59 units of 4.8-gallon buckets of adhesive. This equals 283.2 gallons of adhesive. This equals about 2.5 gallons of adhesive used per working day, assuming a 5-day work week. From July 2020 to November 2020, the facility operated approximately 86 days. In this time the facility purchased 51 units of 4.8-gallon buckets of adhesive. This equals 244.8 gallons of adhesive. This equals approximately 2.8 gallons of adhesive used per working day, assuming a 5-day work week. This does not meet the exemption 287(2)(a) for an adhesive coating line which has an application rate of less than 2 gallons per day and emissions released only into the in-plant environment.

According to the Part 1 Air Quality rules, the definition of "surface coating" means any paint, lacquer, varnish, ink, adhesive, or other coating material applied on a surface. The exemption rule 287(2)(c) states that a surface coating line is exempt if the use is not more than 200 gallons per month, minus water, any exhaust system is appropriately installed, maintained, and operated or a plan is developed which provides for the maintenance and operation of the equipment in a manner consistent with minimizing emissions, and monthly records are maintained.

On December 17, 2020 the facility purchased 39 buckets of adhesive, each containing 4.8 gallons, totaling 187.2 gallons. March 8, 2021 the facility purchased 10 buckets of adhesive or 48 gallons and on April 26, 2021, the facility purchased another 10 buckets or 48 gallons of adhesive. The facility appears to be using less than 200 gallons of adhesive per month. The adhesive is sprayed only in the general in plant environment. It appears the facility may be able to meet exemption 287(2)(c) as long as they maintain monthly usage records of adhesive.

The facility uses a plasma cutter on-site for part of the fabrication process. The plasma cutter is controlled by an internally vented RoboVent baghouse and Endurex B16 ePTFE filters which are designed for use in plasma cutting and heat cutting up to 275 degrees F. The facility contracts Kiffer to complete maintenance on the baghouse and associated filters. The baghouse is equipped with a power flex pulse cleaning system to clear the filters of dust. Maintenance was last completed in May, 2021 which included the annual change of consumables in the machine, preventative maintenance, and replacing the associated lines. At the time of the inspection, the differential pressure reading was 2.8". Manufacturer data states the different pressure should be between 1-4". The plasma cutter is cleaned every 3-6 months depending on use. Mr. Chenoweth stated that they monitor the gauge and when it starts becoming difficult to maintain below 3.0-3.5, they replace the filter. Filters were last purchased and changed on March 17, 2021.

