

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection**

U70180640546060

FACILITY: Royal Technologies	SRN / ID: U701806405
LOCATION: 3712 Quincy St, Hudsonville	DISTRICT: Grand Rapids
CITY: Hudsonville	COUNTY: OTTAWA
CONTACT: Jake Schwartz , Director of Facilities	ACTIVITY DATE: 08/09/2018
STAFF: Tyler Salamasick	COMPLIANCE STATUS: Compliance
SUBJECT: FY 2018 unannounced inspection.	SOURCE CLASS:
RESOLVED COMPLAINTS:	

Clean Air Act Inspection report for Royal Technologies, Hudsonville, Michigan

Background

Royal Technologies is a manufacturer of plastic injection molded products. Royal Technologies products are made up of approximately 40% automotive parts, 40% furniture components and 20% miscellaneous parts. The miscellaneous plastics made include a variety of products including stocks for firearms and electronic components.

Royal Technologies is not subject to the Title V program, which is discussed below, in the regulatory analysis section of this report.

Introduction and purpose

On August 9, 2018 Tyler Salamasick, Environmental Quality Analyst of the Michigan Department of Environmental Quality, Air Quality Division conducted an unannounced, self-initiated inspection of Royal Technologies. The MDEQ inspected the facility located at 3712 Quincy St, Hudsonville, Michigan. The purpose of the inspection was to determine the facility's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the and Air Pollution Control Rules.

Compliance History

The facility has not been inspected by the MDEQ AQD previously. The MDEQ has not received any complaints pertaining to the facility.

Observations and facility processes

Prior to entry of the facility, AQD staff made observations of the facility while off-site. Staff did not observe strong odors, visible emissions, smoke or other emissions from the facility.

AQD staff met with Jake Schwartz, Director of Facilities, presented their identification and informed the representative of the intent of the inspection. The facility representative agreed to show the MDEQ the facility and its processes. Royal Technologies produces plastic injection molded products on 11 main production lines. The main plastic used is black PVC though the facility does use various plastics. Royal Technologies does not appear to use blowing agents or perform plastic coating at this facility. The facility is approximately 392,000 square feet in size and has 12 main bays. The facility's processes are described in some detail below.

Plastic Molding

Royal Technologies 11 of the 12 bays are used for plastic injection molding. Each bay has a production line including multiple different injection lines, which vary in size and quantity of molds. The facility is a job shop, and switches components to produce different products depending on customer needs. The facility uses gaylords or totes to load the thermoplastic pellets into the injection molding process. These pellets are transferred via a vacuum system and hopper. The equipment utilizes electric heat to fluidize the plastic prior to injecting the plastic into the mold. The facility utilizes both extrusion and intern gas to load the mold at a specified pressure.

Once the parts are finished they are unloaded from the machines via an automated handling system and cooling belt. I did not observe the use of mold release agents between molding. It did appear that the used minor amounts of mold release aerosol during, or after maintenance but this does not appear to be a significant source of air pollution.

Assembly and Value Added

The assembly area is larger bay area, approximately 30,000 square feet in size. They also use the space for

some value-added processing. I did not observe the use of solvents, adhesives or adhesion promoters. Most of the processing involved adding clips and screws to various components during the assembly process.

Quality Lab

The quality labs were used for product testing and quality assurance. I did not observe any processes in the quality area that appeared to be a significant source of air contaminants.

Warehousing and Utility

A large portion of the building is used for warehousing. This area did not appear to have any significant air emission sources.

Regulatory analysis and compliance evaluation

Facility emission category

Royal Technologies is a minor source of volatile organic compounds (VOCs). The facility does not currently have any air quality permits. Environmental consulting firm ERM provided a detailed exemption demonstration which also indicated the facility's estimated emission of VOCs to a total of 0.32 tons for the year of 2017 and that the facility is not required to obtain a permit to install.

Permit to install requirements / Exemptions from requiring a permit

Rule 278 – Exclusion from exemption

The facility's consultants provided a 278 demonstration which indicates that the facility is not excluded from the use of exemptions.

Rule 286(2)(b)

The facility has over 100 injection molding presses, of which all appear to be exempt from requiring a permit pursuant to Rule 286(2)(b). (see attached report)

Discussion

Compliance statement: It appears that Royal Technologies is in compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Air Pollution Control Rules; and Rule 201.

NAME 

DATE

9/14/18

SUPERVISOR

