

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

N210945498

FACILITY: Giffin, Inc.		SRN / ID: N2109
LOCATION: 1900 Brown Rd., AUBURN HILLS		DISTRICT: Southeast Michigan
CITY: AUBURN HILLS		COUNTY: OAKLAND
CONTACT: Randy Cleghorn , Project Scheduler		ACTIVITY DATE: 07/05/2018
STAFF: Robert Joseph	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled Inspection of facility		
RESOLVED COMPLAINTS:		

On Thursday, July 5, 2018, I, Michigan Department Environmental Quality-Air Quality Division staff Robert Joseph, conducted a scheduled inspection of Giffin, Inc. located at 1900 Brown Road, Auburn Hills, MI 48326. 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 Public Act 451 and Michigan Department of Environmental Quality-Air Quality Division (MDEQ-AQD) Administrative Rules.

Opening Introduction

I arrived at the facility at approximately 2pm and met with Brian Thom, Purchasing Agent. I introduced myself and presented my identification and credentials and stated the purpose of my visit. I asked Brian what types of processes are performed at the facility and he indicated that the facility is a sheet metal union shop. The facility fabricates sheet metal for commercial use nationwide. This includes sheet metal for the automotive industry and coating booths. I inquired about the hours of operation of the facility and he indicated the hours are Monday through Friday from 6am-2:15pm. I asked him how many employees are employed by the facility and he indicated there are approximately 100 employees. I inquired about the length of time the facility has been at this location and he indicated the company has been at this location for 6 years.

Facility Inspection

Brian indicated that an engineering team within the facility designs the sheet metal per customer orders. These orders are then machined per the design specification in the shop. Brian led me into the shop where we met with Terry, the Operations Manager. Terry then accompanied us on the tour of the facility as he described the processes performed at the facility.

Cleaning of sheet metal

Terry first described the processes which occur in the paint booths. Once sheet metal has been machined to size the metal is cleaned with the chemical, Toluene. Toluene is used for the cleaning of fabricated metals and components prior to shipment, paint preparation, and some spray tool cleaning. It is purchased in 55-gallon drums and is drawn out in small quantities through a pump onto rags and used as needed.

Employees are clothed in personal protection equipment (PPE) during this process. Once used, the rags are left to hang dry within the paint booth. Toluene usage at the facility varies from month to month depending on metal surface cleaning requirements. Terry indicated that leftover waste of Toluene, rags, and paint products are disposed according to the State of Michigan requirements for Hazardous Materials Disposal by a certified EPA registered transporter and waste facility with an appropriate waste manifest.

Per the Permit to Install (PTI) handbook, this cleaning process with the use of Toluene may be exempt per Rule 336.1290 Permit to install exemptions; emission units with limited emissions. Rule 290(2)(a)(i) states;

(2) The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the emission units listed in subdivision (a) of this subrule, if the conditions listed in subdivisions (b), (c), (d), and (e) of this subrule are met. Notwithstanding the definition in R 336.1121(a), for the purpose of this rule, uncontrolled emissions are the emissions from an emission unit based on actual operation, not taking into account any emission control equipment. Controlled emissions are the emissions from an emission unit based on actual operation, taking into account the control equipment.

(a) An emission unit which meets any of the following criteria:

(i) Any emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials that are listed in R 336.1122(f) as not contributing appreciably to the formation of ozone, if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively.

The facility will be required to record and limit their Toluene usage to 1,000 lbs per month (0.5 ton) for a total of 12,000 lbs per year (6 tons). Given the density of Toluene to be 7.18 lbs/gal per the facility's Material Safety Data Sheet, that would require the facility to use under 3 drums (each drum contains 55 gallons or 395 lbs of Toluene) per month. The facility currently does not monitor and record their monthly usage. Records indicate the facility purchased roughly 2.5 tons (5,000 lbs) of Toluene last year. I informed both Terry and Brain that this process could potentially require a Permit to Install (PTI) per the Michigan Air Pollution Control Rule 201.

Coating Process

An additional process which Terry described to me is the coating operations. The facility houses two paint booths. The fabricated sheet metal is coated here with water-based coatings. The coatings are applied via paint spray applicators and are soaked in distilled water after use. Types of paint purchased through receipts include the following;

-Gray True Finish Aquacron 835 Water Reducible Performance Primer

-Neutral Yellow Base Alkyd Enamel

-White Base Alkyd Enamel

-Tool Box Blue Alkyd Enamel

-Aluminum Carbit

The facility monitors and records monthly coating usage. Records were viewed since AQD's last inspection of the facility on August 14, 2017. Coating usage for the both booths combined range between 2 to 64 gallons each month. This process based on water-based coatings is exempt per the Permit to Install Exemption Handbook Rule 287(2)(c) states;

(2) The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

(c) A surface coating line if all of the following conditions are met:

(i) The coating use rate is not more than 200 gallons, as applied, minus water, per month.

(ii) Any exhaust system that serves only coating spray equipment is supplied with a dry filter control or water wash control which is installed, maintained, and operated in accordance with the manufacturer's specifications, or the owner or operator develops a plan which provides to the extent practicable for the maintenance and operation of the equipment in a manner consistent with good air pollution control practices for minimizing emissions.

(iii) Monthly coating use records are maintained on file for the most recent 2-year period and are made available to the department upon request.

The facility must continue to record their monthly coating usage. The coating booths are fitted with filters to help capture overspray and particulates. The filters used are described per the manufacturer specification as white highloft ploy pads and were tested to have an average removal efficiency of 99.54%. The coating booths are housed with one-piece pre-filter panels and 24"x 24" bag filters fitted to the rear frame sections. The booths also have static pressure gauges to monitor the efficiency of the filters for necessary replacement. When replaced, the filters are disposed of by an outside vendor.

Additional processes in the shop which Terry showed me include the following;

Welding

Welding of the sheet metal also occurs within the shop. This process joins materials together through fusion. This process is exempt per the Permit to Install Exemption Handbook

Rule 285(2)(i) for welding states;

(2) The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

(i) Brazing, soldering, welding, or plasma coating equipment.

Laser Cutting and Sheet Metal Punching

Laser cutting of parts occurs in-conjunction with the welding of sheet metal within the shop. The sheet metal also is manufactured as needed through the use of metal punchout equipment (CMADA CNC punchout). Both processes are exempt per the Permit to Install Exemption Handbook;

Rule 285(2)(l)(vi)(B) for laser cutting states;

(2) The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

(l) The following equipment and any exhaust system or collector exclusively serving the equipment:

(vi) Equipment for carving, **cutting**, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, sand blast cleaning, shot blasting, shot peening, or polishing ceramic artwork, leather, metals, graphite, plastics, concrete,

rubber, paper board, wood, wood products, stone, glass, fiberglass, or fabric which meets any of the following:

(B) Equipment that has emissions that are released only into the general in-plant environment.

Pressurized Containers

The laser cutting is supplied by pressurized Carbon Dioxide (CO₂) and Oxygen (O₂) storage tanks and is exempt per the Permit to Install Exemption Handbook containers.

Rule 284(2)(j) states;

(2) The requirement of R 336.1201(1) to obtain a permit to install does not apply to containers, reservoirs, or tanks used exclusively for any of the following:

(j) Pressurized storage of acetylene, hydrogen, oxygen, nitrogen, helium, and other substances, excluding chlorine and anhydrous ammonia in a quantity of more than 500 gallons, that have a boiling point of 0 degrees Celsius or lower.

Conclusion

I thanked both Brian and Terry for their time and cooperation. I informed Brian I would review the facility records and that I would contact him regarding a PTI for the Toluene cleaning process. The remaining facility records were emailed to me on July 18, 2018 by Randy Cleghorn. Randy is the Project Scheduler for the facility and was on vacation during my visit. Randy discussed possible methods for the facility to monitor and record the facility's Toluene usage, however, none of which are satisfactory to verify exemption status.

I informed Randy on Tuesday July 31, 2018 that the facility must record their monthly usage of Toluene to meet the Rule 290 exception, otherwise, the facility must apply for a facility Opt-Out Permit. I informed him this permit would allow the facility to exceed 1,000 lbs of Toluene usage (~2.5 drums) each month. However, the usage must remain under 10 tons per year (or 51 drums) for the facility to avoid becoming a Title V Major Source of Hazardous Air Pollutants (HAPs). Randy informed me he would contact me next week (week of August 6, 2018) regarding the facility's decision.

NAME Robert Joseph DATE 07/16/18 SUPERVISOR SK