

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

U61180516445203

FACILITY: Scherdel		SRN / ID: U611805164
LOCATION: 3440 East Laketon Avenue, Muskegon		DISTRICT: Grand Rapids
CITY: Muskegon		COUNTY: MUSKEGON
CONTACT: David Maynard , Quality Manager		ACTIVITY DATE: 07/17/2018
STAFF: Chris Robinson	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: FY '18 on-site inspection to determine the facility's compliance status with applicable air quality rules and regulations.		
RESOLVED COMPLAINTS:		

A Self-initiated unannounced inspection of Scherdel Sales and Technology (Scherdel) was conducted by AQD staff, Chris Robinson (CR) on July 17, 2018. Scherdel is located at 3440 East Laketon Avenue, in Muskegon County, Michigan. CR met with Mr. David Maynard, Quality Manager, at approximately 10:30am, presenting proper AQD credentials and announcing AQD's intent to conduct an inspection to determine the facility's compliance status with respect to applicable air quality rules and regulations. No odors or visible emissions were observed during this inspection.

#### Facility Description/Compliance Evaluation

Scherdel manufactures a variety of springs and clips for the automotive industry. There are no Permits to Install (PTIs) associated with this facility. The following processes are operated under PTI Exemptions which are discussed further below.

#### Manufacturing Process

Scherdel manufactures springs and clips utilizing approximately 11 stamping/forming machines and 13 coil/forming machines. Most of these units are equipped with detergent wash processes and electric tempering ovens which are vented externally. The facility has elected to use Exemption Rule 285(2)(l)(i) for any bending, forming and/or stamping of the metal components and Exemption Rule 281(2)(e) for the wash process. Some of these machines also incorporate shot blasting, which is not discussed in the facility's "Air Regulatory Compliance Evaluation" (**Attachment A**) report provided by Mr. Maynard but appears exempt per Rule 285(2)(vi)(B) as discussed with Mr. Maynard during the inspection.

Since the previous inspection, Scherdel has installed a Nitrexing system, which uses Nitrogen and Ammonia for hardening the surface of metal components. The unit vents externally through two vertical stacks and is equipped with an afterburner. Mr. Maynard provided a Rule 290 demonstration which included a screening level assessment. Per facility records, the Nitrexing system is subject to the 500lb/month emission limit for equipment with control. Records were reviewed on-site, but Mr. Maynard did provide actual and potential emissions (**Attachment B**) from this demonstration. Annual emissions are summarized in the table below and are based on the following operating schedule, which Mr. Maynard confirmed was current:

Plantwide Operating Schedule: 24hrs/day, 5days/week, 250 days/year  
Nitriding furnace Operating schedule: 14hrs/cycle, 9cycles/wk, 126 hrs/wk, 9 batches/wk

CR informed Mr. Maynard that a new Rule 290 determination is required if the Nitrexing system is operated for more than 9 batches per week as indicated in the existing Rule 290 determination.

Pollutant	Emissions (lb/year)
NH3	393.33
NOx	106.43
TCE	111.78

#### Surface Coating

Surface coating operations at this facility consist of a dip tank, an automated spray booth, and aerosol spray cans. Mr. Maynard provided usage records (**Attachment C**) and Safety Data sheets (**Attachment D**). The coating utilized in the dip tank is a water-based paint and the process is vented to the in-plant environment. Mr. Maynard provided purchase order records and indicated that paint is purchased on an as needed basis. Records indicate that Scherdel has purchased approximately 310 gallons of paint for the dip tank in the last year (July 2017-June 2018). Scherdel has elected to use PTI exemption Rule 287(2)(c)(i) for surface coating operations with a coating use rate of less than 200 gallons per month for the dip tank.

The automated spray booth is equipped with a dry filter and is vented externally. Mr. Maynard indicated that this process is used to mark the side of springs, which requires a very minimal amount of paint (approximately 12-gallons per year). As discussed with Mr. Maynard, this process also appears to be exempt from permitting requirements under Rule 287(2)(c)(i).

Hand-Held aerosol spray cans are utilized for part identification only. As discussed with Mr. Maynard, this process appears to be exempt from permitting under Rule 287(2)(b) for surface coating processes that only use hand-held aerosol spray cans.

#### **Maintenance**

Scherdel's "Air Regulatory Compliance Evaluation" report indicates that the facility operates a parts cleaner that contains mineral spirits. Per discussions with Mr. Maynard, this has been replaced with a heated non-agitated CRC Smartwasher containing "OzzyJuice". Based on the manufacturers website (<http://www.crcindustries.com/products/smartwasher-174-ozzyjuice-174-sw-4-heavy-duty-degreasing-solution-5-gal-14148.html>) and confirmed in the SDS, Ozzyjuice is "an aqueous industrial strength, pH neutral, VOC-free (<0.01%), non-corrosive, non-flammable, biodegradable cleaning fluid". Michigan's Air Pollution Control Rules defines a cold cleaner as "a tank containing organic solvent with a volatile organic compound (VOC) content of 5% or more, by weight, and a temperature below it's boiling point that is used to spray, brush, flush, or immerse metallic and/or plastic objects for the purpose of cleaning or degreasing". OzzyJuice is VOC-free, therefore this unit appears to be considered an aqueous based parts washer, not a cold cleaner, which appears to be exempt from permitting requirements under Rule 281(2)(k).

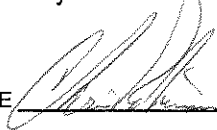
#### **Compliance Determination**

Based on the observations made at the time of this inspection and a subsequent record review, Scherdel Sales and Technology appears to be in compliance with applicable air rules and regulations.

#### Attachments

- A - Air Regulatory Compliance Evaluation
- B - Rule 290 Emission Calculations
- C - Usage Records
- D - Safety Data Sheets

NAME



DATE

7/23/2018

SUPERVISOR

