

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

B725345813

FACILITY: ROOTO CORP		SRN / ID: B7253
LOCATION: 3505 W GRAND RIVER, HOWELL		DISTRICT: Lansing
CITY: HOWELL		COUNTY: LIVINGSTON
CONTACT: Rick Lapanowski, General Manager		ACTIVITY DATE: 08/22/2018
STAFF: Samantha Braman	COMPLIANCE STATUS: Compliance	SOURCE CLASS: <u>Minor</u>
SUBJECT: Unannounced, scheduled inspection.		
RESOLVED COMPLAINTS:		

Safety Equipment Required: None required.

Purpose: Unannounced, scheduled inspection by Sam Braman for compliance with state and federal air quality regulations.

Location: Rooto is in an industrial area in the city of Howell. There are no nearby residences or any other sensitive areas to note.

Facility Background/Regulatory Overview: Rooto bottles sulfuric acid, sodium hydroxide, and ammonia solutions for cleaning products. This facility has approximately 16 employees and operates on 1 shift, 5 days per week.

Rooto is considered a minor source of air emissions. Permits to Install (PTI) 303, 304, 305-80 were all voided in 2012. This emission units at this facility are all covered under exemptions.

A major source has the potential to emit (PTE) of 100 tons per year (TPY) or more, of one of the criteria pollutants. Criteria pollutants are those for which a National Ambient Air Quality Standard exists, and include carbon monoxide, nitrogen oxides, sulfur dioxide, volatile organic compounds (VOCs), lead, particulate matter smaller than 10 microns, and particulate matter smaller than 2.5 microns. It is also considered a minor area source for Hazardous Air Pollutants (HAPs), because it was not considered to have a PTE of 10 TPY or more for a single HAP, nor to have PTE of 25 TPY or more for combined HAPs.

Fee Status: This facility does not belong to a category fee and is not required to report to MAERs.

Materials Provided: Business card and Exemption Book

Inspection:

Arrived: 9:30 AM

Departed: 10:45 AM

Weather: 60?; NW wind at 14mph

Last Inspection: 2/08/12

Complaints: None

There were no visible emissions from the facility upon arrival. No odors were identified on Grand River or surrounding the complex.

Upon arrival I was greeted by Rick Lapanowski, General Manager. He informed me that former contact Penny Rulason was no longer with the company. After a brief initial meeting to discuss the last inspection and anything that may have changed in the past six years, Rick gave me a tour of the facility. Emission units can be identified in the Table 1-1 below.

Table 1-1: This table identifies the emission unit, description of the unit, the correlating exemption it is operating under and the compliance status of the unit.

No.	Emission Unit	Description	Comp.
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			Status
1	Caustic Powder Line	Bottling line for sodium hydroxide powder.	C
2	Sulfuric Acid Line	(2) Sulfuric Acid bottling lines.	C
3	Caustic Liquid Line	Bottling line for aqueous sodium hydroxide.	C
4	Ammonia Liquid Line	Bottling line for aqueous ammonia.	C
5	Sulfuric Acid Storage Tanks	(2) 6,000-gallon double-walled tanks stored outside.	C
6	Sodium Hydroxide Tank	(1) 5,200-gallon tank holds 25% sodium hydroxide.	C
7	Ammonia Tank	(1) 5,200-gallon tank.	C
8	Wet Scrubber	Wet scrubber with water connected to ammonia bottling line, vents outdoors.	C

– **Dry Powder Line:** Rick referred to this building as the Dry Room. The only line in here is the caustic powder line. The caustic powder is loaded into a bin where an auger sifts the powder down to the line where it can be bottled. This line was not running during my inspection. Rick informed me that this line only runs September through April or May. The reason for this is that the humidity in the summer causes the powder to clump and therefore the line does not run efficiently. The caustic powder comes in bags on pallets and is stored in the building. Rick stated that they never really have any issues with excessive fugitive dust. All emissions are in plant.

2 – Liquid Sulfuric Acid Line: The building with all the liquid bottling lines is referred to as the Liquid Room. There are two liquid sulfuric acid bottling lines. These were not in operation during my inspection. Lines are fed from outdoor storage tanks and are gravity fed into bottles. Go through approximately 6,000 gal/week.

3 – Liquid Sodium Hydroxide Line: Material gets delivered at 25% caustic acid. At the facility they mix water with the material to get an end result of approximately 60% caustic acid solution and 40% water. Rick stated the goal is to get around 15% NAOH in the mixture for bottling. They get about 2 tanker deliveries per year and each tanker is approximately 4,500 gallons.

4 – Liquid Ammonia Line: This line was not running during my inspection. The ammonia line is housed inside a wooden box in the building, and after a bottle gets filled it exits the box on a conveyor belt and gets loaded into a cardboard box for shipping. They go through about 4,500 gallons per month and is mixed with water. Ratio is approximately 60% water and 40% ammonia. This line is connected to a wet scrubber located outside which controls emissions from this process. This process is exempt under 290(2)(ii), which states that the uncontrolled emissions of the air contaminant is not more than 1,000 lbs/month. We are using the uncontrolled number instead of the 55 lbs/month limit with control because the wet scrubber does not have a liquid flow rate monitor. After looking into the emission factors for ammonia, I could not find any limits that were associated with a bottling process only. The closest emission unit I could find was associated with manufacturing of ammonia, this emission factor would be high compared to what Rooto is using it for. Even using the 2.2 lbs/ton emission factor and the 4,500 gallons per month of ammonia that they use this would still be way under the 1,000 lbs/month limit.

5, 6 & 7 – Storage Tanks: The Ammonia tank and sodium hydroxide tank are exempt under 284(h). According to my conversation with Rick about the sulfuric acid, those tanks are exempt under 284(h)(i).

Recordkeeping: For future compliance inspection purposes, would recommend keeping records to demonstrate exemption compliance.

Summary: This facility appeared to be in compliance with state air quality regulations. No violations were noted during this inspection.

NAME Sandra Branson DATE 8/29/18 SUPERVISOR B. M.