

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

N832534744

FACILITY: WOODWORTH INC		SRN / ID: N8325
LOCATION: 4201 PIER NORTH BLVD, FLINT		DISTRICT: Lansing
CITY: FLINT		COUNTY: GENESEE
CONTACT: Robert (Bob) Lixey , General Manager		ACTIVITY DATE: 06/24/2016
STAFF: Nathaniel Hude	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled, unannounced inspection.		
RESOLVED COMPLAINTS:		

**Inspection Report**

N8325- Woodworth, Inc. (WWI)  
4201 Pier North Blvd  
Flint, MI 48504

**Inspection Date:**

5/24/16

**Facility Contacts:**

Robert Lixey, General Manager, 810-820-6780, [rlixey@wwflint.com](mailto:rlixey@wwflint.com)

**MDEQ AQD Personnel:**

Nathan Hude – [huden@michigan.gov](mailto:huden@michigan.gov), 517-284-6779

**Facility Description:**

Woodworth is a heat treatment facility for GM and Ford brake rotors (no drums) for the purpose of increasing wear resistance and increased rust resistance. They operate 5-6 days per week, 24 hours per day and employ 42 individuals. Safety glasses are required and pictures of the operation are prohibited for process confidentiality.

Another company within the same building paints the rotors after the treatment is complete named On-Site Finishing, SRN P0109. On Site Finishing, which is affiliated with March Coatings, operates under PTI 253-09 which is a general coating line permit. Site is located at the end of the road in an industrial area not far from I-75 exit 122 for Pierson Road.

**Applicable Regulations:**

1. General PTI 213-09
2. General PTI 214-09

**Previous Inspections:**

5/6/2010, Brad Myott, no concerns noted

**Previous Violations:**

1. none

**Violations Found During this Inspection including reoccurring:**

none

**Recent Complaints (within 2 years):**

none

**MAERS Reporting**

na

**Inspection Summary**

I arrived at WWI on 5/24/16 at approx. 12:56pm. This was a scheduled yet unannounced inspection. I did not notice any VE's or odors while approaching the facility or while inside the facility.

I introduced myself to Bob and provided him with a copy of my business card and the DEQ Inspection Brochure; Bob stated they did not have a boiler, so I did not provide him with a Boiler card. We went into a conference room where we sat down and reviewed the brochure. Bob explained that the plant began business in 2010 and had not changed in terms of equipment since that time. (During Brad's inspection, it was noted that the site only had 4 furnaces, with the intent to install 2 additional for a total of 6.) Going through an inventory of the facility, Bob told me they had the 6 furnaces rated at 4 MMBtu/hr, 2 anhydrous ammonia (AA) tanks, no boilers, no used oil burners, no grinding or metal work (other than facility repairs), but did have an emergency generator. I informed Bob, that we would need to look at the emergency generator to determine if any JJJJ requirements needed to be met.

We then toured the facility. Bob explained to me that the rotors are shipped to them from various foundries including facilities in Mexico. Once received, the rotors are sorted and placed on racks which can then be loaded into the furnaces. The furnaces are brought to temperature firing natural gas. Once the ideal temperature is reached, all oxygen is purged out by nitrogen followed by the AA. The AA is injected and the temperature maintained for the desired duration per rotor thickness. The AA breaks down and the nitrogen is absorbed into the steel and the hydrogen is vented out of the furnace to a burner which is vented to a stack through the roof. The absorption of the nitrogen is the hardening process. The six furnaces are all identical other than methods of functionality. Furnaces 1, 2, and 4 are manually operated and take adjustments throughout the cycle to introduce the nitrogen and AA. Furnaces 3, 5, and 6 are automatic and can complete the full cycle without manual inputs other than the initial setting dependent on the rotor type or thickness.

The previous inspection stated the Rule 282(a)(i) was used for the furnaces. This rule states the following: Rule 282. The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following: (a) Any of the following processes or process equipment which are electrically heated or which fire sweet gas fuel or no. 1 or no. 2 fuel oil at a maximum total heat input rate of not more than 10,000,000 Btu per hour: (i) Furnaces for heat treating glass or metals, the use of which does not involve molten materials, oil-coated parts, or oil quenching.

The heat treatment process pulls from one AA tank at a time. The AA tanks are permitted through general permits 213-09 and 214-09. The most recent version of the AA General Permit was used during the inspection. There are numerous farm related conditions in the permit that do not apply to this facility. While in the office area before going to the production area, Bob provided me with the recordkeeping required information and inspection records. The tanks are maintained by Airgas and they conduct an inspection during each fill (the tanks have sensors that communicate to Airgas via internet when they reach a low volume so that fills can be completed). The last fill and inspection completed by Airgas was 3/11/16. The document completed during this identifies the safety relief valves as manufactured on 4/2013 for the east tank and 1/2012 for the west tank. These valves must be replaced upon the 5 year date from manufacture per SC IV1 and were within the required timeframe. Remote emergency shutoff push buttons (E-Stop buttons) are required per SC IV2 and are located at all four main entrance/exit doors. These buttons are required to be tested twice per year in accordance with appendix A. The current WW practice is to complete the test annually, yet Bob made a on the spot change with the individual who performs the test. Otherwise the conditions of Appendix A were being met on a quarterly basis by WW conducted inspections and upon delivery by the Airgas driver. I feel confident that all inspection requirements were being met. The emergency response plan was last reviewed and signed by the appropriate personnel on 4/27/16 meeting the annual review as per SC III3. When inspecting the tanks, it was noted that the tanks are fenced and all piping is installed in a manner that would require a great deal of effort to siphon the product. The east tank was at 42.9% and the west tank was at 81.5%. The safety relief valves were visible, the breakaway bulkhead was evident, yet the emergency phone number signs were not in place at the facility entrance. Bob and I discussed the requirement and the intent; he agreed to have the signs made and installed asap. Due to the violations (emergency stop button test and emergency signs) being agreed to be corrected in the short timeframes listed, I did not write violations for these but rather required follow-up to ensure they were complete. An onsite estimate was done for required distances from the property line and other buildings; the requirements were confirmed upon returning to the office and using GIS (see attached photo).

Due to the concern of combined emission exceeding significance levels, I performed an estimated PTE for the facility to ensure compliance with Rule 278, specifically:

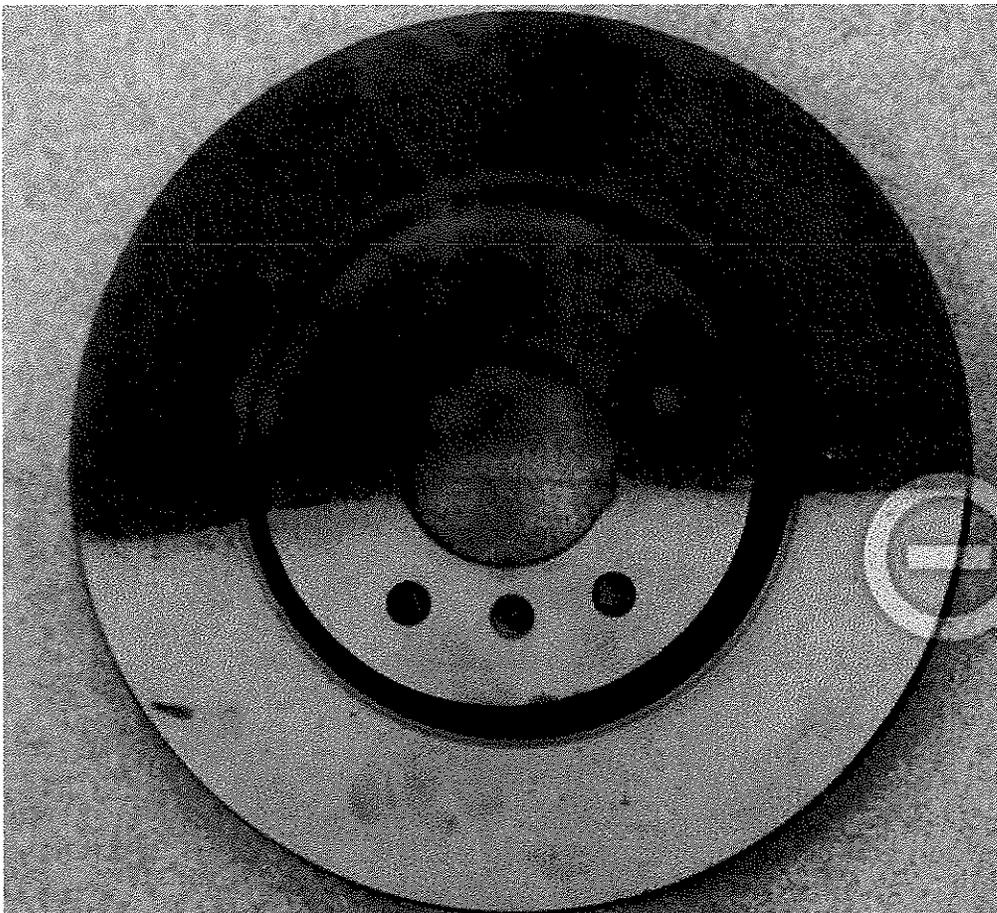
Rule 278. (1) The exemptions specified in R 336.1280 to R 336.1290 do not apply to either of the following: (b) Any activity that results in an increase in actual emissions greater than the significance levels defined in R 336.1119. For the purpose of this rule, "activity" means the concurrent and related installation, construction, reconstruction, relocation, or modification of any process or process equipment. The PTE was completed using AP-42 and identified the following estimates:

Combined Totals, ton / yr:	Significance ton / yr:	Major Source ton / yr:
NOx	18.08	40
CO	15.15	100
CO2	21643.64	na
Lead	0.00010	0.6
PM2.5	1.37	10
SO2	0.11	40
VOC	2.00	40

A copy of the entire PTE estimate including the equipment breakdown will be attached to the hard copy filed report.

An emergency engine that services the building was found to have requirements per 40CFR60 IIII. Further documentation of this will be added as a "Reg. Applicability Determination" report in MACES.

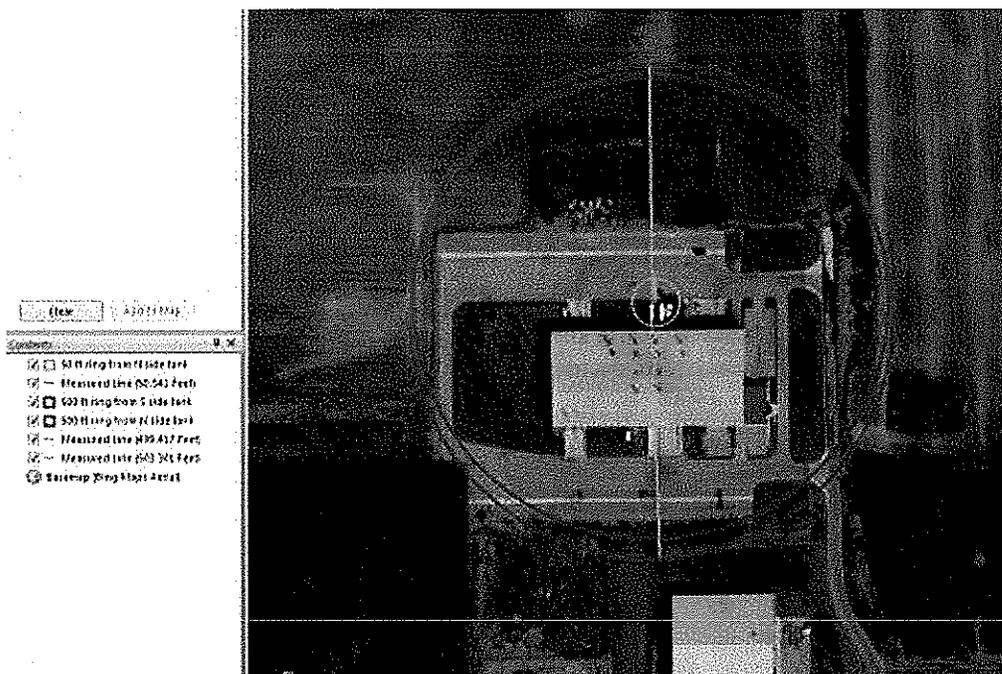
Based on my inspection, it appears the facility is in compliance with the applicable permits.



**Image 1(Treated Rotor) :** Pic from internet



**Image 2(Treatment Furnace) :** Pic from internet



**Image 3(AA Distance GIS Map) :** ArcGIS Distances for Anhydrous Ammonia permit requirements

NAME *[Signature]*

DATE 7/6/16

SUPERVISOR *B. M.*