

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

P042050552

FACILITY: WOODWORTH INC PONTIAC		SRN / ID: P0420
LOCATION: 500 CENTERPOINT PARKWAY N, PONTIAC		DISTRICT: Southeast Michigan
CITY: PONTIAC		COUNTY: OAKLAND
CONTACT: Anthony Deciechi, Environmental Director		ACTIVITY DATE: 08/26/2019
STAFF: Joe Forth	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: On-site Inspection		
RESOLVED COMPLAINTS:		

On August 26, 2019, AQD staff Joseph Forth conducted an unannounced scheduled inspection at Woodworth Inc. (P0420) located at 500 Centerpoint Parkway, Pontiac, Michigan. The purpose of the inspection was to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environment, Great Lakes and Energy (EGLE-AQD) Administrative Rules; and Permit-to-Install (PTI) Nos. 197-18, 130-17, 17-13 and 55-13.

Woodworth primarily conducts heat treating operations called gaseous ferritic nitrocarburizing, annealing and stress relieving. Ferritic nitrocarburizing is a case hardening Stress relieving is similar to annealing in that it softens the metal. It consists of heating up the metal to a certain temperature, holding it at that temperature and then cooling the metal part at a low rate. Annealing usually is done at a higher temperature than stress relieving. The facility is a supplier for the automotive, oil/gas, and wind power industry. Typical parts include brake rotors, engine cradles, clutch plates, and spring retainers.

This facility has a permit for two ammonia storage tanks. PTI No 17-13 for a 8,000 gallon storage tank and PTI 55-13 for a 9200 gallon storage tank. Both permits are general permits. The ammonia storage tanks are heated to vaporize the ammonia. The ammonia goes to the top of the tank where it is delivered to the heat-treating furnace. Since this is a general permit, not all permit conditions are applicable.

The facility added two paint lines in 2017 for the coating of various metal parts (PTI No. 130-17).

In 2018, the permittee was approved for the installation of eight (8) natural gas fired heat treat and ferritic nitrocarburizing (FNC) furnaces. Of the eight approved, only EUHEATTREAT5 and EUHEATTREAT6 have been installed thus far, and EUHEATTREAT9 will be installed for the verification of combustion gas usage on October 18, 2019.

The facility has an emergency generator, a 2001 Model Year Caterpillar Model 3412. Engine is rated at 8.13 MMBTU/hr. This is subject to the 40 CFR 63 Subpart ZZZZ but not subject to NSPS Subpart IIII. Since this is an existing emergency generator more than 500 HP, there are no emission limits or work practice standards requirements. An hour meter is installed. The permittee provided the SDS for the diesel fuel used with the generator showing it is under the 15 ppm sulfur content limit. The emergency engine generator is exempt under Rule 285(2)(g), engine less than 10 MMBTU/hr. The facility has no boilers or cold cleaners.

I arrived at the location 9:30 am. I met with Anthony Deciechi, Environmental Director, and Robert Lixey, General Manager. I introduced myself, presented my credentials and stated the purpose for inspection. We began with review of the permit conditions. I went through the conditions and Mr. Deciechi was able to show or provide copies all required documentation and calculations. We then began the tour of the facility, Mr. Deciechi showed me one of the heat treating/FNC furnaces. It appeared to be equipped with a device to monitor and record natural gas usage. We then moved on to the coating lines. Mr. Deciechi showed me the dry filters, which appeared to be properly installed and in satisfactory condition. The booths are equipped with high volume-low pressure (HVLP) applicators, and all waste materials from the coating operation are kept in sealed containers and picked up by a waste disposal company (Strength Environmental). Next, I was shown the two ammonia storage tanks. Mr. Deciechi showed me the safety information posted near the tanks. The facility also keeps ammonia leak safety information at every exit of the building.

I left the facility at 11:00 am.

Compliance

All documents were provided electronically, document locations for future reference are provided with each permit.

PTI Nos. 17-13 and 55-13 (Both are general permits for ammonia storage so I'm combining the compliance evaluation for both.)

S:\Air Quality Division\STAFF\Joe Forth\P0420 Woodworth Inc. FY19 Inspection\Ammonia Tank Docs
EU-AMMONIA

III.1 Compliance with the conditions of this permit will confirm compliance with the Part 78 standards.

III.2 The permittee provided records of inspection and maintenance that appear to satisfy the specifications of Appendix A of PTI Nos. 17-13 and 55-13.

III.3 The permittee sent an amended emergency response plan to their local fire department on March 6, 2019.

III.4 EU-AMMONIA for both permits are located more than 50 feet from the Woodworth property line and appear to be at least 1000 feet from the nearest building/residence.

III.5 All transfer operations for EU-AMMONIA are performed by properly trained people.

III.6-8 The permittee does not make use of any nurse or applicator tanks, so these conditions are not applicable.

III.9 The permittee employs vapor return lines for all ammonia transfer operations.

III.10 The permittee does not make use of nitrogen stabilizer in either storage tank, nor in transfer operations.

IV.1 All containers are fitted with safety relief valves that are inspected quarterly and maintained or replaced as necessary.

IV.2 The permittee has EU-AMMONIA equipped with both internal and external positive shut-off valves.

IV.3 The permittee has EU-AMMONIA equipped with bulkhead/breakaway at each transfer area.

IV.4 Liquid line transport transfer areas for EU-AMMONIA are equipped with back pressure check valves and vapor lines are equipped with proper excess flow valves.

IV.5-6 These conditions apply to nurse/applicator tanks which the permittee does not use.

IV.7 Signs stating emergency phone numbers for the owner, primary operator, local and state police, local fire department and ambulance are posted at every exit of the building.

VI.1 The permittee has not experienced any malfunctions or spills to date but are aware of the requirement to record and report in the event that one does occur.

VI.2 The permittee provided records of the latest review and approval of the the emergency response plan with the local fire department.

VII.1 The permittee has not yet had an event to warrant notifying PEAS but is aware of the requirement to do so in the event an abnormal release occurs.

IX.1 The permittee has not modified, replaced or installed new equipment for either permit since the initial installation of the two storage tanks.

PTI No. 130-17

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FG-COATING

I.1 An emission limit for each coating line of 2000 lbs (1 ton) VOC per month. The highest monthly total (since January 2018) for Paint Line 1 was 0.23 tons of VOC in October 2018. The highest monthly total (since January 2018) for Paint Line 2 was 0.11 tons of VOC in December 2018.

I.2 A 12-month rolling time period emission limit of 10 tons VOC per year for each coating line. 12-month rolling VOC total for Paint Line 1 up to August 2019 is 1.77 tons of VOC. For Paint Line 2 (didn't operate until November 2018) the total is 0.22 tons of VOC.

III.1 The permittee keeps all waste coatings and solvents in sealed drums and has them disposed of by an industrial waste company (Strength Environmental).

IV.1 Each booth is equipped with HVLP spray applicators.

IV.2 The booths were equipped with dry filters that appeared to be installed and maintained properly. The dry filters are replaced as needed.

V.1 The permittee provided Method 24 data for the VOC content of the materials used in FG-COATING.

VI.3 The permittee provided records for the following:

- a. Purchase orders for all coatings and solvents used in FG-COATING.
- b. VOC content for each coating and solvent used in FG-COATING.
- c. Usage, in gallons, of all coatings and solvents used in FG-COATING.
- d. Monthly VOC emission rates, in tons, for each coating line in FG-COATING.
- e. 12-month rolling total VOC emissions, determined on a monthly basis, in tons of VOC.

VI.4 The permittee provided the SDSs for the coating (C40_022 Base) and the solvent (Parachlorobenzotrifluoride) used in FG-COATING

VIII.1 The exhaust stacks for FG-COATING discharge unobstructed vertically. Stack dimensions not verified during this inspection.

IX.1 The permittee has not modified, replaced or installed new equipment for either booth since the initial installation.

FG-SOURCE

I.1 12-month rolling time period total VOC emission limit for all coating lines combined of 30 tons per year. The highest 12-month period was August 2018 through July 2019 of 2.11 tons of VOC.

VI.1 The permittee provided 12-month rolling time period total VOC emissions calculations determined on a monthly basis.

PTI No. 197-18

FGHEATTREAT

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I.1 An emission limit of 32.67 lbs NOx per FNC cycle. The permittee shall comply with this limit by monitoring the natural gas usage of the furnace and staying below the material limit in special condition

II.1. This emission limit was accepted by the AQD during permitting based on data provided from an identical process at a different facility owned by Woodworth Inc. AQD has the ability to request testing to confirm this emission rate, but at this time does request so.

II.1 A 12-month rolling time period NOx emission limit, determined on a monthly basis, of 37.75 tons per year. The permittee has only been operating FGHEATTREAT since May 2019. In those 3 months, Woodworth has produced 0.723 tons of NOx. The estimated 12-month total at the current rate of production is 2.894 tons per year.

II.1 The permittee will be verifying the natural gas usage per load limit of 35,000 scfm during testing in October 2019.

II.2 The permittee uses only natural gas as fuel in FGHEATTREAT.

III.1 Records of 3 months of operation provided show 62 stress relief cycles, and 34 FNC cycles. The estimated 12-month totals are 248 stress relief cycles and 136 FNC cycles.

IV.1 The permittee has the required one furnace equipped with a natural gas usage monitor. Operations manual for the gas flow meter was provided.

V.1 The AQD does not at this time request verification of the NOx per FNC cycle emission rate.

V.2 The permittee plans to verify the natural gas usage per furnace load for the representative furnace on October 18, 2019.

VI.1 The permittee completes all required calculations by the 15th day of each calendar month.

VI.2 The permittee provided records of monthly and 12-month rolling total FNC and stress relief cycles.

VI.3 The permittee provided records of monthly and 12-month rolling NOx emission calculations.

VI.4 The permittee is verifying their natural gas usage per furnace load in October 2019.

VII.1 The permittee notified the AQD when installation of the currently installed furnaces was completed and is aware of the requirement to do so for all remaining furnaces.

VIII The stacks for the currently installed furnaces discharge unobstructed vertically. Stack dimensions not verified during this inspection.

Conclusion

Woodworth Inc. appears to be operating in compliance with the he Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) Administrative Rules; and Permit-to-Install (PTI) Nos. 197-18, 130-17, 17-13 and 55-13.

NAME

J. M. [Signature]

DATE

9-30-19

SUPERVISOR

SK