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

A016947203

FACILITY: Bradford White Corporation		**SRN / ID:** A0169
LOCATION: 200 Lafayette Street, MIDDLEVILLE		**DISTRICT:** Grand Rapids
CITY: MIDDLEVILLE		**COUNTY:** BARRY
CONTACT: Tyler Caro ,		**ACTIVITY DATE:** 12/06/2018
STAFF: Eric Grinstern	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Unannounced compliance inspection		
RESOLVED COMPLAINTS:		

FACILITY DESCRIPTION

The facility is located within the City of Middleville and manufactures water heaters. Operations include steel tank forming and welding, shot blasting, enamel coating, foam insulation and assembly.

The facility currently has approximately 1,500 employees.

REGULATORY OVERVIEW

The facility's operations are covered by Opt-Out Permit No. 207-04C. The facility currently has an application under review (No. 207-04D) for the installation of new welding, enamel mixing, enamel pouring, shot blasting, flue spraying and tank spraying equipment.

COMPLIANCE EVALUATION

Prior to entering the facility, a survey of the perimeter was made. No abnormal odors were noted. Observation of the facility showed no visible emissions.

At the facility staff met with Tyler Caro, Bradford White's environmental contact. Mr. Caro accompanied staff on a tour of the facility and provided all requested records (attached).

Below is an evaluation of the facility's compliance with applicable air quality rules, regulations and permits.

PTI No. 207-04D

EUCOENAMEL

Commercial department porcelain application line with a cartridge filter system control.

EMISSION LIMITS/RECORDKEEPING

Restricts the emission of PM to 0.05 lb. per 1000 lb. of exhaust gas.

Compliance with the PM emission limit is demonstrated through proper operation of the cartridge filter system.

DESIGN/EQUIPMENT PARAMETERS

Requires that the permittee install and operate the cartridge filter system in a satisfactory manner.

Observation of the cartridge collector showed it to appear to be in good operating condition with no visible emissions.

EURESENAMEL

Residential department porcelain application enamel line with a cartridge filter system control.

The permit lists control as being a "multiclone", however, the process is actually controlled by a cartridge collector baghouse.

EMISSION LIMITS/RECORDKEEPING

Restricts the emission of PM to 0.05 lb. per 1000 lb. of exhaust gas.

Compliance with the PM emission limit is demonstrated through proper operation of the cartridge filter system.

DESIGN/EQUIPMENT PARAMETERS

Requires that the permittee install and operate the cartridge filter system in a satisfactory manner.

The facility conducts visible emission readings on a weekly basis. Records for the previous 12 months were supplied. Review of the records showed no visible emissions observed.

Observation of the cartridge collector showed it to appear to be in good operating condition with no visible emissions.
EUTRAYSTRIPPER

A tray type air stripping unit used to treat groundwater.

EMISSION LIMITS/RECORDKEEPING

Restricts the emissions of VOC (0.58 lb/hr), Cis-1,2 dichloroethene (0.27 lb/hr), Trichloroethylene (0.28 lb/hr), Vinyl Chloride (0.026 lb/hr). All limits are based on a monthly average.

Compliance with the emission limits is based on the requirement to monitor and record the pollutant concentrations of the influent/effluent, the emissions of each pollutant, and the flow rate (based on maximum observed during the month).

Records for the previous 12-months were requested and provided by the facility.
Review of the records showed emissions rates well below the permitted limits. (records attached)

Mr. Caro stated that the tray stripper is monitoring and sends out an alarm if abnormalities are detected. FTC&H is on-site weekly to evaluate the operation of the tray stripper.

EUFLUESPRAY

Two porcelain enamel spray booths and back oven. Emissions are controlled by a dust collector.

EMISSION LIMITS/RECORDKEEPING

Restricts the emission of PM to 0.05 lb. per 1000 lb. of exhaust gas and 0.7 lb/hr (monthly average).

Compliance with the PM emission limit is demonstrated through proper operation of the cartridge filter system.

DESIGN/EQUIPMENT PARAMETERS

Requires that the permittee install and operate the cartridge filter system in a satisfactory manner.

Observation of the cartridge collector showed it to appear to be in good operating condition.

MONITORING/RECORDKEEPING

The permittee is required to monitor and record the condition of the particulate control system through visual inspection on a weekly basis.

The facility conducts visible emission readings on a weekly basis. Records for the previous 12 months were requested and supplied. Review of the records showed no visible emissions observed.

FGFOAMLINES

Four residential water heater cyclopentane-based polyurethane foam insulation lines and one commercial water heater cyclopentane-based polyurethane foam insulation line. All lines share two 10,000 gallon bulk isocyanate tanks. The residential lines share five 7,000 gallon bulk polyol storage tanks and there is one 7,000 gallon bulk polyol storage tank for the commercial line.

Emission Units: EURESFOAM1, EURESFOAM2, EURESFOAM3, EURESFOAM4, EUCOMFOAM1

EMISSION LIMITS/RECORDKEEPING

Restricts the emission of VOCs for each line and the combined emissions from all of the lines. EURESFOAM1, EURESFOAM2, EURESFOAM3, EUCOMFOAM1: 16 TPY allowed from each line. EURESFOAM3: 12 TPY allowed. FGFOAMLINES: 31.1 TPY allowed for the combined lines.

Compliance with the emission limits is based on the requirement to calculate and record the VOC emissions rates on a monthly and 12-month rolling time period.

12-Month rolling emissions as of November 2018

EURESFOAM1:	2.66 tons
EURESFOAM2:	8.81 tons
EURESFOAM3:	8.75 tons

EURESFOAM4: 3.83 tons (line started operation in 1/18)
EUCOMFOAM1: 0.019 tons (line started with cyclopentane 11/18)
FGFOAMLINES: 24.06 tons

MATERIAL LIMITS/RECORDKEEPING

Resin usage and the cyclopentane content of the resin is restricted as follows:

1. Resin usage	4,270,000 pounds per year	12-month rolling time period as determined at the end of each calendar month	Each emission unit in FGFOAMLINES except EURESFOAM4
2. Resin usage	3,200,000 pounds per year	12-month rolling time period as determined at the end of each calendar month	EURESFOAM4
3. Resin usage	8,300,000 pounds per year	12-month rolling time period as determined at the end of each calendar month	FGFOAMLINES
4. Cyclopentane content of resin	Maximum 15% by weight	Instantaneous	FGFOAMLINES

Compliance with the usage limits is demonstrated through the requirement that the facility maintain records of resin usage rates on a monthly and 12-month basis. Records for the past 12 months were requested and provided by the facility. The facility documented the following usage.

12-Month rolling resin usage as of November 2018

EURESFOAM1: 709,278 pounds
EURESFOAM2: 2,349,042 pounds
EURESFOAM3: 2,332,710 pounds
EURESFOAM4: 1,022,169 pounds (line started operation in 1/18)
EUCOMFOAM1: 3,161 pounds (line started with cyclopentane 11/18)
FGFOAMLINES 6,416,360 pounds

The facility's records and SDS list the resin cyclopentane content as 10% - <15%

FGFACILITY

Facility-wide HAP and VOC limits.

EMISSION LIMITS/RECORDKEEPING

Restricts the emission of each individual HAP to 9.0 tpy and aggregate HAPs to 22.5 tpy. It also limits the facility wide VOC emissions to 90 tpy.

Compliance with the emission limits is demonstrated through the requirement that the facility maintain records of monthly and 12-month emission rates.

Records for the past 12 months were requested and provided by the facility.

12-Month rolling resin usage as of November 2018

Highest emitted individual HAP: manganese	**0.86**	**tons**
Aggregate HAP emissions:	**2.17**	**tons**
VOC	**25.91**	**tons**

Miscellaneous

The facility has various welding and shotblasting processes. The shotblasting units have baghouse control as do most of the welding operations. The shotblasting operations are exempt from permitting under Rule 285(2)(l)(vi)(C).
The welding operations are exempt from permitting under Rule 285(2)(i).

Conclusion

Based on the information and observations made during this inspection, the facility appears to be in compliance with all applicable air quality rules and regulations.

NAME _____ DATE 12/19/18 SUPERVISOR _____