

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

N261431850

<b>FACILITY:</b> NBHX Trim USA Corporation		<b>SRN / ID:</b> N2614
<b>LOCATION:</b> 1020 Seven Mile Road, COMSTOCK PARK		<b>DISTRICT:</b> Grand Rapids
<b>CITY:</b> COMSTOCK PARK		<b>COUNTY:</b> KENT
<b>CONTACT:</b> Dan Madden , Plant and Environmental Manager		<b>ACTIVITY DATE:</b> 10/07/2015
<b>STAFF:</b> Kaitlyn DeVries	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> MAJOR
<b>SUBJECT:</b> The purpose of this inspection was to determine compliance with Title V Permit No. MI-ROP-N2614-2012a and all other applicable air quality rules and regulations.		
<b>RESOLVED COMPLAINTS:</b>		

On October 7, 2015, AQD staff Kaitlyn DeVries (KD) conducted an unannounced, scheduled inspection of NBHX Trim USA Corporation (NBHX) located at 1020 Seven Mile Road, Comstock Park, Michigan. The purpose of this inspection was to determine compliance with Title V Permit No. MI-ROP-N2614-2012a and all other applicable air quality rules and regulations. The facility is a major source for HAP's and VOC's.

KD arrived on site at approximately 9:00 am. No apparent odors were detected, but visible emissions observations were not obtained due to dense fog in the area. KD met with Mr. Dan Madden, Plant Engineer and Environmental Manager. The Environmental Inspections Rights and Responsibilities pamphlet was presented, along with the Boiler MACT insert; each of these was briefly discussed, before a tour of the facility. Further discussion of the boiler MACT will commence in the FGBOILER section located in the body of this report. KD also informed Mr. Madden, that an initial reminder for ROP renewal would be coming in November, 2015. Records were also requested at this time, and submitted via e-mail on a later date. All semi-annual and annual reporting, as specified in General Conditions 19-23 of Part A of MI-ROP-N2614-2012a, have been reported on time and were complete.

### Facility Description

NBHX is a manufacturer of high-end wood trim for the automotive industry that operates three (3) shifts per day, six (6) days per week. Per Mr. Madden, there have been no significant changes to the facility, other than the installation of the new boiler (see below), and the malfunction abatement plan (MAP) has not changed either. The facility consists of various woodworking operations that include sanding, cutting, routing, and buffing operations. The sanding and buffing operations are both manual and robotic. These processes are exempt from Rule 201 permitting under Rule 285 (l)(vi). Each of these processes is controlled by one of two baghouse systems. Staining, coating, and sealing operations are also found throughout the facility. These operations are discussed in further detail below.

### Compliance Evaluation

#### *EUBLEACHBOOTH*

The bleach booth area consists of one (1) booth and an associated drying tunnel. Per Mr. Madden, the bleach booth only operates on second and third shifts; thus this unit was not in operation during the time of the inspection. The booth appeared to be equipped with a water curtain control system. Hydrogen Peroxide emissions are limited to 1.3 pounds per hour based on test protocol. Per the attached records, the hydrogen peroxide emissions, as of September 2015, are 1.07 pounds per hour. Additionally, hydrogen peroxide is limited to 3.7 tons per year (tpy) 12-month rolling. Per the records provided, as of September 2015 the current 12-month rolling emissions are 0.91 tpy. Mr. Madden provided KD with MSDS's for the materials that contain hydrogen peroxide (please see attached). NBHX is properly tracking the usage of each hydrogen peroxide containing material, none of which is reclaimed.

HVLP applicators, or comparable technology and test caps, are required for this process. There was no direct indication that this applicator was HVLP upon inspection, thus KD requested further information from Mr. Madden. Mr. Madden provided information indicating this applicator was indeed HVLP. The applicator is manufactured by Walther Pilot and is from Germany. Upon investigation of the applicator online, KD agrees, this applicator is indeed HVLP. Mr. Madden also stated that test caps are available on site. Both the bleach booth

and the drying tunnel were equipped with stacks that vented externally. While KD did not explicitly measure the stacks, both appeared to be of proper dimensions.

#### *EUSTAIN*

The staining area consists of three (3) manual staining booths and an associated drying room. Each staining booth was equipped with a water wash pollution control system. This area also contains an additional water wash booth, to ensure the parts are properly cleaned. The staining area was not in operation at the time of the inspection. Mr. Madden informed KD that two (2) of the three (3) booths are primarily used for staining, and the third primarily for sealing. Each of the booths was equipped with HVLP applicators, and per Mr. Madden, test caps are available on site.

NBHX had previously requested, and AQD approved, the use of manufacturer's formulation data for VOC content of the stains. Of the representative MSDS's obtained, the highest VOC content was 10.9%. The combined VOC and Acetone emission limit is 13.7 tpy; as of September 2015, the 12 month rolling emissions were 0.51 tpy. NBHX is adequately tracking the gallons of stain, purge, and cleanup material used, as well as the VOC and acetone content of each stain. In September 2015, 468.3 gallons of material was used. The three stacks associated with the staining area were not explicitly measured, but appeared to be of proper dimensions. All waste containers appeared to be properly stored and disposed.

#### *EUMODELSHOP*

The model shop area is an area that primarily serves for re-work and touchups for the lacquered and coated parts. There is one (1) manual bench-top spray area that was properly equipped with a fabric filter at the time of the inspection. According to Mr. Madden, the filters are changed at least once per shift. HVLP applicators are used in this area, and per Mr. Madden, test caps are available on site.

The facility currently has styrene emission limits and styrene content limits for its coatings in this section of the ROP. However, the 2014 FCE report mentions that styrene is not a component of the touch-up materials and has not been since permit issuance (please see CA\_N261425123). KD asked Mr. Madden if styrene was in use in this area of the facility, for which he stated that indeed no styrene was used anywhere in EUMODELSHOP. Rather, styrene is only present in the polyester resin operations (see discussion below). MSDS's were also collected for the materials used here, which indicate no Styrene present.

Acetone emissions are limited to 4.0 tpy, 12-month rolling. As of September 2015, the 12-month rolling acetone emissions were 0.00 tons. Coating materials are limited to 4,380 gallons per year, 12-month rolling, and as of September 2015, 3,228 gallons per year was used. All associated records for gallons of coating reclaimed and mass emission rates appear to be properly tracked.

During the inspection, all waste containers appeared to be properly closed, stored, and disposed of into a waste drum, which is sent out. KD did not explicitly measure the stack, but there were no apparent changes.

#### *EUPUR*

This area is the resin injection mold application area for the topcoat of the wooden automotive parts. VOC emissions are limited to 11.7 tpy 12-month rolling. As of September 2015, the 12-month rolling VOC emissions are 3.55 tpy. NBHX has most recently done method 24 testing for the VOC content of the mold release coating in April 2014. The mold release coating is limited to a VOC content of 6.1 pounds per gallon, and per the Method 24 results, the VOC content is 5.9 pounds per gallon. The VOC content of the non-reactive portion of the lacquer resin is limited to 10% by weight. The VOC content of the non-reactive portion of the lacquer resin is 9.7% by weight. NBHX is adequately tracking material usage (lacquer, mold release, and cleanup solvent), VOC content, and VOC emissions. While KD did not physically measure the stack dimensions, there appeared to be no changes. Additionally, all waste containers in this area were properly stored and in closed containers.

#### *FGBOILERS*

KD discussed the changes to National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63, Subpart DDDDD (5D) with Mr. Madden. AQD received an initial notification for the old boilers, in 2005. KD explained that there would need to be modifications done to the boiler section of the ROP due to the

changes in 5D, but this could be done along with the ROP renewal that will be needed by May, 2017. The boilers are also subject to 40 CFR Part 60, Subpart Dc, for which all requirements have been met.

NBHX currently utilizes two (2) natural gas only boilers (EUBOILER-A and EUBOILER-B). Per Mr. Madden, NBHX had recently replaced one of the old 10.5 million BTU boilers with a 12 million BTU boiler. NBHX will need to submit an initial notification new boiler, but the previously submitted initial notification will suffice for the existing boiler. Per Mr. Madden, no other fuels, aside from natural gas, are used for either boiler. VOC emissions are limited to 0.06 pounds per hour 24-hour rolling, and 0.26 tpy 12 month rolling. As of September 2015, the 24 hour rolling VOC emissions are 0.014 pounds per hour and the 12 month rolling VOC emissions are 0.09 tpy. NBHX is also keeping track of the daily natural gas usage including start and stop levels of the gas, as required. While the stack dimensions were not explicitly measured, they appeared to be acceptable.

#### *FGRTO*

NBHX utilizes a regenerative thermal oxidizer (RTO) for control of the polyurethane and polyester spray lines. These lines include associated water wash systems, but have uncontrolled flash off and drying tunnels. There are three (3) booths, EUPOLYU, EUPOLYESTER-A, and EUPOLYESTER-B, but only two (2) booths are primarily used. The booths are either six (6) stations or four (4) stations. All of the booths utilize HVLP applicators, and are either manual or robotic applications. Test caps for pressure testing were also available on site.

The 12-month rolling VOC emissions from FGRTO are limited to 48.36 tpy, and as of September 2015, the VOC emissions are 39.69 tpy. Styrene emissions are limited to 11.00 pounds per hour, and as of September 2015 the hourly emission rate was 2.74 pounds. Per Mr. Madden, this is the only area in the facility where styrene is emitted. The styrene is only a component of the polyester resin. NBHX has requested, and AQD has approved, the use of manufactures data for the VOC content of any coating used. The highest VOC content is 100%, for the ethyl acetate, glycol ether, and isobutyl acetate that are used in the polyester resin operations. NBHX is also properly tracking material usage, VOC emissions, acetone emissions, and styrene emissions.

At the time of the inspection, the RTO appeared to be properly operating, and was running at a temperature of 1582°F, which is above the 1450°F minimum operating temperature. All temperature excursions and exceedances have been properly reported on the semi-annual deviation reports. The RTO was properly equipped with a continuous temperature monitoring device (LCD screen and temperature strip chart) and appropriate records are being kept. Based on the representative sample of daily temperature and static pressure log, there were no temperature or pressure deviations. NBHX is also properly documenting maintenance and conducting regular inspections of the RTO and capture system equipment. Attached is an example of the maintenance records. NBHX also maintains the MAP, for which no changes were identified. Stack dimensions were not directly measured during the inspection; however, there were no apparent changes.

At the time of the inspection, all waste in this area was properly captured, stored, tracked, and disposed of.

#### *FGDUST*

NBHX has six (6) baghouses (designated as dust collectors 1-6) associated with the various cutting, grinding, sanding, and other woodworking operations within the facility. The dust collectors are separated out into two (2) systems, EUEASTDUSTSYSTEM and EUWESTDUSTSYSTEM. Each system contains three (3) baghouses, located on the aforementioned side of the plant. The particulate matter (PM) emissions for each baghouse are individually limited to 0.001 pounds per 1000 pounds of exhaust gas per test protocol. Additionally, the dust collectors have PM<sub>10</sub> emission limits. Dust collectors 1 and 4 are individually limited to 1.68 pounds per hour, dust collectors 2 and 3 are individually limited to 2.83 pounds per hour, dust collector 5 is limited to 2.57 pounds per hour, and dust collector 6 is limited to 1.37 pounds per hour. Each of the baghouse limits are based on test protocol.

KD did not observe any visible emissions from any of the baghouses during the inspection. Mr. Madden explained the NBHX's rigorous maintenance plan to maintain the clean and properly operating baghouses.

There were no fugitive emissions around the baghouses either, thus they all appeared to be properly operating. Daily pressure drop readings and visible emission observations are kept for all of the baghouses. KD was able to observe the magnehelic's for the baghouses, which also appeared to be properly operating. While the stacks for the baghouses were not explicitly measured, there appeared to be no changes.

*FGRULE287(c)*

NBHX utilizes Rule 287 (c) for three (3) coating operations. The three (3) booths consist of two (2) airbrush tables and one (1) edge painting booth. These booths are primarily used for touch-up purposes. According to Rule 287 (c), the booths are individually allowed to use a maximum of 200 gallons per month. Per the attached records, the edge painting booth used 35.4 gallons in September 2015, and the airbrush tables used 94.8 gallons each. The records are complete, and the booths were properly equipped with filters at the time of the inspection. NBHX also tracks the filter changes.

*FGRULE290*

Rule 290 is used by NBHX for open pore material used in the finishing room. Per Mr. Madden (see attached e-mail), they began using this material in July of 2015, thus records have only been kept since then. NBHX is adequately tracking material usage and emissions for all materials used. All materials are non-carcinogenic VOC's with the exception of ethylbenzene, which per the attached records is 2.75% ethylbenzene and part of the sealer. The most current MSDS for the sealer is attached. The MSDS reports a range of 2.5% - 10% ethylbenzene for the sealer; however, NBHX confirmed with the manufacturer the content is 2.75%. Thus, a total of 1.1 pounds of ethylbenzene is emitted for the month of September 2015, which is below the controlled 10 pound limit under Rule 290. All other emissions are below the controlled limit of 500 pounds under Rule 290.

*FGCOLDCLEANERS*

The facility currently only has one (1) cold cleaner, which is located in the maintenance department. At the time of the inspection the cold cleaner was open, but empty. The unit was properly labeled, and appeared to be less than 10 ft<sup>2</sup>. This cold cleaner is exempt from permitting under Rule 281 (h).

**Compliance Determination**

Based on the available records and on-site evaluation, it appears that NBHX trim is in compliance with MI-ROP-N2614-2012a and all other applicable air pollution rules and regulations.

NAME  DATE 10/21/2015 SUPERVISOR PARB