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

N261438795

FACILITY: NBHX Trim USA Corporation		**SRN / ID:** N2614
LOCATION: 1020 Seven Mile Road, COMSTOCK PARK		**DISTRICT:** Grand Rapids
CITY: COMSTOCK PARK		**COUNTY:** KENT
CONTACT: Dan Madden , Plant and Environmental Manager		**ACTIVITY DATE:** 02/02/2017
STAFF: Adam Shaffer	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled, unannounced inspection.		
RESOLVED COMPLAINTS:		

Air Quality Division (AQD) staff Adam Shaffer (AS) and Kaitlyn DeVries (KD) arrived at the facility the morning of February 2, 2017 to conduct an unannounced, scheduled inspection. The purpose of this inspection was to determine compliance with applicable air quality rules and regulations.

Prior to entering the facility, odor and visible emission observations were completed. No visible emissions or odors were identified from offsite. AQD staff met with Mr. Dan Madden, Plant Engineer and Environmental Manager. The purpose of the inspection was briefly discussed with Mr. Madden, and included a facility walk through, with a final discussion at the end of the facility inspection.

Facility Description

NBHX Trim is a manufacturer of wood trim parts for the automotive industry. The facility is in operation under Title V Permit No. MI-ROP-N2614-2012a. Additionally, the site operates a second resin injection mold application area (EUPUR2) permitted under Permit to Install (PTI) No. 73-14, which was installed in June 2014. Mr. Madden, stated during the initial discussion, that no significant changes have occurred on site, with the exception of the changes noted in the renewable operating permit (ROP) application that was submitted in November 2016. The ROP renewal process will roll PTI No. 73-14 into the ROP.

Compliance Evaluation

Prior to the site inspection, semiannual and annual compliance reports which are submitted by NBHX Trim identifying any potential deviations per Part A General Conditions 19-23 of MI-ROP-N2614-2012a were reviewed since the last inspection in 2015. No deviations were identified, and all reports were submitted on time.

EUBLEACHBOOTH

The bleach booth area consists of one (1) manual bleach booth and an associated drying tunnel. The hydrogen peroxide emissions are limited to 1.3 lbs/hour. Per attached records provided by Mr. Madden, the hydrogen peroxide emissions, as of December 2016, were 1.04 lbs/hour. The 12-month rolling emission limit for hydrogen peroxide is 3.7 tons per year (tpy). Per attached records, the 12-month rolling hydrogen peroxide emissions, as of December 2016, were 1.01 tpy. The bleach booth was equipped with a water curtain system; however, the bleach booth and water curtain system were not in use at the time of the inspection. Mr. Madden stated that the bleach booth does use high volume low pressure (HVLP) technology and that test caps are available on site. NBHX Trim provided Material Safety Data Sheets (MSDS) for the one hydrogen peroxide containing material being utilized. Additionally, NBHX Trim provided usage rates for the hydrogen peroxide containing material being used and it was stated by Mr. Madden that no reclaim of materials occurs in this area. Two stacks that vent externally were observed for the bleach booth and associated drying tunnel. Though the two stacks were not measured, the dimensions appeared consistent compared to the Title V Permit No. MI-ROP-N2614-2012a dimensions listed. This area is included in a Malfunction Abatement Plan (MAP) and Preventative Maintenance Plan (PMP) dated December 2011, with an updated copy having been submitted with the ROP application. All requirements of the MAP and PMP have been met.

EUSTAIN

The staining area consists of three manual spray booths and an associated drying room. The 12-month rolling emission limit for combined volatile organic compounds (VOCs) and acetone is 13.7 tpy. Per attached records, the 12-month rolling combined VOCs and acetone emissions, as of December 2016, was 0.63 tpy. The three staining booths are each equipped with a respective water wash system and were observed in operation at the time of the inspection. Mr. Madden stated that the three staining spray booths use HVLP technology and that test caps are available on site. NBHX Trim had requested, in April 2013, to use manufacturer's formulation data

to verify VOC content for all staining materials, versus Method 24 testing that was previously utilized. After speaking with Mr. Madden, it was determined that NBHX Trim doesn't receive manufacturer's formulation data from their German supplier for each staining material, but is only provided MSDS's. For all future use and recordkeeping NBHX Trim will need to utilize manufacturer's formulation data or revert back to the Method 24 testing to determine VOC content. MSDS's were provided for the three highest use staining materials and cross referenced with VOC content used for calculating emissions. NBHX Trim appears to be correctly keeping track of all usage rates for each stain, purge and clean-up materials, VOC/acetone content, and total VOC/acetone emissions. Three stacks were identified for the staining area venting externally. Though the three stacks were not measured, the dimensions appeared consistent compared to the Title V Permit No. MI-ROP-N2614-2012a dimensions listed. All waste containers appeared to be properly stored and disposed of at the time of the inspection. This area is included in a MAP and PMP dated December 2011 with an updated copy having been submitted with the ROP application. All requirements of the MAP and PMP have been met.

EUMODELSHOP

The model shop area consists of one manual bench-top spray booth that is used for touch-ups to wooden interior automotive parts. The 12-month rolling emission limit for acetone is 4.0 tpy. Per attached records, the 12-month rolling emissions, as of December 2016, were 0.00 tpy. The model shop area emission limit for styrene (CAS No. 100-42-5) is 0.73 lbs/hour, and 50 percent by weight, as applied. In the 2015 inspection report, styrene was not identified as a component in any materials utilized in the model shop area. Mr. Madden verified with AQD staff during the inspection that no styrene containing materials are utilized in the model shop area. The 12-month rolling coating usage limit is 4,380 gallons per year. Per attached records, the 12-month rolling coating usage total, as of December 2016, was 2,627 gallons/year. All waste containers appeared to be properly closed, stored, and properly disposed of per state and federal regulations at the time of the inspection. The spray booth was observed to be properly utilizing an exhaust filter at the time of the inspection. Mr. Madden stated that all spent filters are disposed of and replaced when needed. HVLP application technology was verified by Mr. Madden with test caps available on site. MSDS's were provided to AQD staff for all coating materials utilized in this area of the facility. NBHX Trim appears to be properly tracking and recording gallons of coating used and mass emission rates. One stack was observed venting externally. Though the stack was not measured, the dimensions appeared consistent compared to the Title V Permit No. MI-ROP-N2614-2012a dimensions listed.

EUPUR/EUPUR2

This is the resin injection mold application area of the topcoats to the wooden interior automotive parts. All conditions for EUPUR are identified in the Title V Permit No. MI-ROP-N2614-2012a and all conditions for EUPUR2 are identified in the PTI No. 73-14. The records provided from Mr. Madden show EUPUR and EUPUR2 were combined. AQD staff informed Mr. Madden that in the future, all records for EUPUR and EUPUR2 need to be separated. The 12-month rolling emission limit for VOCs is 11.7 and 12.7 tpy for EUPUR and EUPR2, respectively. Per attached records, the 12-month rolling total emissions, as of December 2016, for both booths combined was 3.83 tpy; which is well below each respective VOC 12-month rolling emission limit for EUPUR and EUPUR2. MSDS's were provided by Mr. Madden for the lacquer resin and catalyst and mold release materials. The materials that are used in EUPUR and EUPUR2 are the same. The VOC content of the non-reactive portion of the lacquer resin are limited to 10 percent by weight, as received. Per attached records, the VOC content, by weight, of the non-reactive portions of the lacquer resin is 9.7 percent. The VOC content of the mold release coating is limited to 6.1 lbs/gallon and 0.4 lbs/gallon for EUPUR and EUPUR2, respectively. NBHX Trim, in April 2014, had completed a Method 24 test of the VOC content for the mold release coating for the EUPUR/EUPUR2 lines. The Method 24 test identified a VOC content of 5.9 percent. Based on this Method 24 test, the VOC content for the mold release coating is approximately 0.35 lbs/gallon. All waste containers appeared to be properly closed, stored, and properly disposed of per state and federal regulations at the time of the inspection. NBHX Trim appears to be properly tracking usage records for all lacquer resin, mold release and cleanup solvents, VOC content and VOC emissions. One stack was observed venting externally. Though the stack was not measured, the dimensions appeared consistent compared to the Title V Permit No. MI-ROP-N2614-2012a dimensions listed.

FGBOILERS

NBHX Trim is listed in Title V Permit No. MI-ROP-N2614-2012a as utilizing two natural gas only boilers (EUBOILER-A and EUBOILER-B) which are 10.5 million BTU each and were both installed in 1990. At the time of the inspection EUBOILER-B was observed to have been removed and replaced with a 12 million BTU boiler (EUBOILER-C). The installation of EUBOILER-C occurred in 2015 and these changes will be addressed in the ROP renewal. Mr. Madden stated that the two boilers are run with one in operation and the other as a backup.

The two boilers are subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63, Subpart DDDDD. An initial notification was received for EUBOILER-A in 2005; however, an initial notification had not yet been received for EUBOILER-C. AQD staff reminded Mr. Madden that an initial notification will need to be submitted to AQD staff for EUBOILER-C. Additionally, per NESHAP requirements an initial energy assessment was required to be completed for EUBOILER-A. After further review of records, it was identified that this had never been completed. An energy assessment needs to be completed for EUBOILER-A, and submitted to AQD. AQD staff will follow up with NBHX Trim to verify the assessment is completed, and the necessary documents are submitted to the AQD. The boilers are also subject to 40 CFR Part 60, New Source Performance Standards (NSPS) Subpart Dc. Requirements per 40 CFR NSPS Subpart Dc are submittal of initial notification forms, monthly fuel usage records and reporting to Michigan Air Emissions Reporting System (MAERS). NBHX Trim appears to be keeping track of their daily usage rates of natural gas, as required. The 2016 MAERS has not been submitted by NBHX Trim at this time and the 2015 MAERS report was reviewed by KD and determined to be compliant. Tune up records were provided to AQD staff by NBHX Trim that showed the last tune up for EUBOILER-A and EUBOILER-C was on June 6, 2016 and January 30, 2017, respectively. Records of hourly, monthly and 12-month rolling VOC total emissions were provided by Mr. Madden. For the two boilers, VOC emissions are limited to 0.06 lbs/hour, per 24-hour rolling time period, and 0.26 tons, per 12-month rolling time period. The 2016 24-hour rolling VOC emission records were reviewed, and for the month of December 2016, the highest record was 0.048 lbs/hour. As of December 2016, the 12-month rolling total emissions for VOCs was 0.0808 tpy. Two stacks were observed venting externally. Though the two stacks were not measured, the dimensions appeared consistent compared to the Title V Permit No. MI-ROP-N2614-2012a dimensions listed.

FGRTO

NBHX Trim utilizes a regenerative thermal oxidizer (RTO) for control of the polyester and polyurethane spray lines. There are three booths (EUPOLYU, EUPOLYESTER-A and EUPOLYESTER-B) with a varying number of stations per booth. The booths are equipped with water wash systems and connected to a capture system which leads to the RTO. Each line also includes uncontrolled flash-off areas, flash-off tunnels, drying areas and/or rack/staging areas. The most recent stack testing of the RTO, and associated capture system, was completed on May 24-25, 2016. The destruction efficiency of the RTO was 98.05% and the capture efficiency of the capture system was 92.39%.

Mr. Madden stated that the lines are utilizing HVLP application technology and test caps are available. The 12-month rolling total VOC emissions for FGRTO are limited to 48.36 tpy. Per attached records, the 12-month rolling VOC emissions, as of December 2016, were 6.04 tpy. FGRTO is limited to 11.00 lbs/hour of styrene. Per attached records, the hourly average, as of December 2016, for styrene was 0.63 lbs/hour. Mr. Madden stated that this is the only area in the facility where styrene is utilized, and is for the polyester booths. NBHX Trim had requested, in April 2013, to utilize manufacturer's formulation data to determine the VOC content of all coating, purge and clean-up materials versus performing Method 24 tests. After speaking with Mr. Madden, it was determined that NBHX Trim doesn't receive manufacturer's formulation data from their German supplier for any coating, purge and clean-up materials but is provided MSDS's. MSDS's for several materials were cross referenced with VOC content used for calculating emissions. Minor differences with VOC content utilized and MSDS solvent totals were identified for several materials. One material was observed with a significant difference in reported VOC content and MSDS listed VOC content. This material was previously mentioned in AQD files on November, 2003, when Votteler Company had conducted tests to determine that the amount of styrene which evaporates is 31.34%, which is due to crosslinking (only a smaller portion of the material volatilizes). Part #6241 contains 38% styrene, so approximately 11.9% of the styrene will volatilize. NBHX Trim appears to be keeping track of usage rates, VOC/styrene/acetone contents and emissions for each coating, purge and clean-up material used. However, for all future use and recordkeeping, NBHX Trim will need to utilize manufacturer's formulation data or revert back to the Method 24 testing to determine VOC content.

The RTO and associated capture system was observed at the time of the inspection. A temperature monitoring device was observed in operation which consisted of a LCD control panel and temperature strip chart. The minimum operating temperature for the RTO is 1,450°F and the operating temperature at the time of the inspection was 1,509°F. The static pressure was observed ranging from 0.7" w.c. to 1.0" w.c. with a set point at 1.0" w.c. Per Title V Permit No. MI-ROP-N2614-2012a, the capture system must always maintain a negative pressure. However, NBHX Trim is recording the static pressure on the opposite side of the fan that pulls emissions into the capture system, which will then have a positive reading. Therefore, with a positive reading, the capture system was operating properly and was deemed acceptable by AQD staff. Appropriate records of temperature and static pressure were being kept and were acceptable. Additionally, maintenance/inspection records were provided for the RTO and capture system. The maintenance/inspection records ranged from daily

to annual recordings of operations that have been completed. Based on the records provided, NBHX Trim appears to be properly completing and recording all required maintenance/inspection operations for the RTO and Capture System.

This area is included in a MAP and PMP, dated December 2011, with an updated copy having been submitted with the ROP application. In the MAP/PMP the proper functioning of the RTO and maintenance operations is listed and this was verified as completed per the FGRTO section of the Title V Permit No. MI-ROP-N2614-2012a. Additionally, the RTO is subject to Compliance Assurance Monitoring (CAM), and an updated CAM plan was submitted with the ROP application. In the most recent CAM plan, the proper monitoring requirements and maintenance operations are listed and this was verified as completed per the FGRTO section of the Title V Permit No. MI-ROP-N2614-2012a. A total of nine stacks were observed for this area venting externally. Though the nine stacks were not measured, the dimensions appeared consistent compared to the Title V Permit No. MI-ROP-N2614-2012a dimensions listed. All waste containers appeared to be properly tracked, stored and disposed of per applicable state and federal regulations at the time of the inspection.

FGDUST

NBHX Trim has six dust collectors, with five dust collectors online at the time of the inspection. The dust collectors are separated into two emission units (EUWESTDUSTSYSTEM and EUEASTDUSTSYSTEM), with three dust collectors for each respective unit. The dust collectors are used for the various wood working processes (sawing, grinding, cutting etc.) that occur prior to the coating processes. The particulate matter (PM) emission limits for the six baghouses are as follows:

- Dust collector 1 – 1.68 lbs/hour
- Dust collector 2 - 2.83 lbs/hour
- Dust collector 3 – 2.83 lbs/hour
- Dust collector 4 – 1.68 lbs/hour
- Dust collector 5 – 2.57 lbs/hour
- Dust collector 6 – 1.37 lbs/hour
- All dust collectors individually – 0.01 lbs/1000 lbs of exhaust gases

Magnehelic's identifying pressure drops were observed for each baghouse. The baghouses appeared to be working properly and baghouse number six was observed to not be in operation. It was later determined by Mr. Madden that baghouse number six has been offline since at least July 1999. No excess PM was observed surrounding each baghouse. Daily pressure drop and opacity observation records were provided by Mr. Madden for June and December 2016. After further review of the records, it appeared the baghouses were operating properly. Six stacks were observed venting externally for this area. Though the six stacks were not measured, the dimensions appeared consistent compared to the Title V Permit No. MI-ROP-N2614-2012a dimensions listed. This area is included in a MAP and PMP dated December 2011 with an updated copy having been submitted with the ROP application. All requirements of the MAP and PMP have been met.

FGRULE287(2)(c)

NBHX Trim utilizes Rule 287(2)(c) for edge painting and airbrush table operations. These booths are utilized mostly for touch-up purposes. Filters are utilized for these operations and were observed in use. Mr. Madden stated filters are changed on an as needed basis. NBXH Trim tracks the filter changes for these units with records of the frequency of the changes for the months of June and December 2016 provided to AQD staff. Per Rule 287(2)(c) a maximum of 200 gallons can be utilized per month, per emission unit. Records showed, as of December 2016, the number of gallons used for the edge painting booths, which included two edge painting booths and plant-wide solvent usage, were 84.6 gallons. For the month of December 2016, the number of gallons used for the two airbrush booths was 213.4 gallons; with it being mentioned that the total usage of materials per month is split evenly between the two airbrush booths. With the monthly usage stated that it was split evenly, this will put the two airbrush booths below the maximum allowable limit per month for coatings used. In the future, NBHX Trim will need to separate the monthly coating usage for each booth under FGRULE287(2)(c). The records provided by NBHX Trim were determined to be complete and additionally, the records included VOC emissions for each material utilized.

FGRULE290

NBXH Trim utilizes Rule 290 for their open pore material in the finishing area of the facility. Monthly material usage and emissions were provided for all the materials used. All materials listed were identified as containing non-carcinogenic VOCs with the exception of one sealer that contained ethylbenzene; which is a carcinogenic

VOC. The MSDS for the sealer identified an ethylbenzene content range of 2.5-10.0%. AQD verified with Mr. Madden that the specific ethylbenzene content for the sealer was 2.75%. Under Rule 290 controlled carcinogenic VOC emissions are limited to 10 lbs per month. Records provided for 2016, show all monthly totals of carcinogenic VOC emissions below the limit of 10 lbs per month. The remaining non-carcinogenic VOC contents of the MSDS requested were compared to records provided. Based on these observations, it appears that NBHX Trim is accurately tracking monthly usage and emission records. All monthly total non-carcinogenic VOC emissions were below the limit of 500 lbs per month for controlled emissions, with the most recent reporting in December 2016 of 138.5 lbs.

FGCOLDCLEANERS

NBHX Trim utilizes one cold cleaner that is located in the maintenance area of the facility. At the time of the inspection the cold cleaner was open; however, the reservoir was empty, and it appeared that no parts had been washed recently. An operating procedures list was observed above the cold cleaner. The cold cleaner appeared to be less than 10 ft^2 and; therefore, is exempt per Rule 281(2)(h).

Additional Observations

During the inspection, numerous wood working process equipment were observed, that included various sanders, grinders, and cutting machines which appear to be exempt per Rule 285(2)(l)(vi). Approximately twelve vertical presses were observed during the inspection. During operation a glue film is heated and pressed between various veneer shaped materials. During this process, Mr. Madden stated that no emissions are created. Based on this, there is no potential to emit air emissions.

Conclusion

A final discussion was completed with AQD staff and Mr. Madden. Based on the review of the records provided and the facility walk through, NBHX Trim is in compliance with Title V Permit No. MI-ROP-N2614-2012a, PTI No. 73-14, and all other applicable air pollution rules and regulations.

NAME _____ DATE 05/09/17 SUPERVISOR _____