

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

N261425126

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: 04/23/2014
STAFF: Jenifer Dixon	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: The purpose of this inspection was to complete a scheduled inspection and to determine the facility's compliance with all applicable Air Quality Rules and Regulations and Title V Permit No. MI-ROP-N2614-2012a.		
RESOLVED COMPLAINTS:		

This was an unannounced inspection. An "Environmental Inspections" brochure was offered, but staff at the facility has already received this brochure during previous inspections.

The purpose of this inspection was to complete a scheduled inspection and to determine the facility's compliance with all applicable Air Quality Rules and Regulations and Title V Permit No. MI-ROP-N2614-2012a.

JD arrived in the area of the facility at approximately 10:30AM and departed at 12:30PM. No odors or excess opacity was observed during the time before, during, or after the inspection. Mr. Dan Madden, Plant Engineer/EMR, provided pertinent information regarding the facility and the operations contained therein.

The facility manufactures high-end wood trim for the automotive industry. The facility has extensive woodworking operations that include cutting, sanding, routing, and planeing; that are controlled by one of two baghouse systems. The facility also has several laminating stations which are used in order to adhere several layers of wood laminate. There are also several booths and coating lines that are used on the trim pieces. These coating lines apply stains, polyurethanes and polyester finishes to the product. Finishing of the product often includes buffing and polishing to get the desired shine and smoothness. All of these processes, as well as the boilers are regulated under the Title V permit.

## TITLE V PERMIT NO. MI-ROP-N2614-2012a

### EU-BLEACHBOOTH

This process is an inorganic bleaching process that is controlled by a waterwash system. The purpose of this booth is to lighten the color on a wood part if that part does not meet quality standards. According to Mr. Madden, the automotive industry is very strict in this regard and all of the trim pieces on every vehicle must fit into a very tight color range. The bleach is stored adjacent to the booth in a covered bucket.

The facility has previously been required to do a stack test on this emission unit as they had been found to be in violation. The results of the stack test indicated that the facility was NOT in violation. Operations of the booth have not changed since this test.

#### I. EMISSION LIMIT(S)

1. Hydrogen Peroxide emissions are limited to 1.3 pounds per hour based on an hourly time period as determined at the end of each calendar month.

*The emissions for hydrogen peroxide for March 2014 were 0.62 pounds per hour. This is well below the permitted limit.*

2. Hydrogen Peroxide emissions are limited to 3.7 tons per year based on a 12-month rolling time period as determined at the end of each calendar month.

*The emissions for hydrogen peroxide for March 2014 were 0.85 tons. This is well below the permitted limits.*

## **II. MATERIAL LIMITS**

NA

## **III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

## **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate the spray booth unless the respective water wash system is installed and operating properly.

*This is being done as required.*

2. The permittee shall equip and maintain the bleaching booth with HVLP spray guns or an equivalent technology with comparable transfer efficiency.

*According to Mr. Madden, the booth is equipped with HVLP technology.*

## **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years.

NA

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years.

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15<sup>th</sup> day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.

*Based on records reviewed, this appears to be being done as required.*

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each bleaching material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.

*This is being done as required.*

3. The permittee shall keep the following information on a calendar month basis for EUBLEACHBOOTH:
  - a. Gallons (with water) of each hydrogen peroxide containing material used.
  - b. Where applicable, gallons (with water) of each hydrogen peroxide containing material reclaimed.
  - c. The hydrogen peroxide content (with water) in pounds per gallon of each material used.
  - d. Hydrogen peroxide emission calculations used to determine the pounds per month emission rate as determined at the end of each calendar month.
  - e. Hydrogen peroxide emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.

*Based on the records submitted by Mr. Madden, this is done as required by the permit conditions.*

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to April 30.
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.

*These reporting conditions have been complied with as required.*

## **VIII. STACK/VENT RESTRICTION(S)**

The facility has maximum exhaust and minimum diameter restrictions on the stacks for this emission unit. Based on a visual observation of the stacks from the road, the height listed in the ROP appeared to coincide with the actual stack heights. The stacks were not actually measured by JD during the inspection.

## **IX. OTHER REQUIREMENT(S)**

NA

## **EUSTAIN**

This emission unit consists of three staining booths. The staining booths are all manual spray and are controlled by a waterwash system. The booths also have an associated drying room that is seldom used.

These booths are used to apply the stain to the wood trim before sealing. Two booths were in operation at the time of the inspection. According to Mr. Madden, these booths are also occasionally used to apply lacquer. This information is tracked in the appropriate places.

**I. EMISSION LIMIT(S)**

1. Combined VOCs and Acetone emissions are limited to 13.7 tons per year based on a 12 month rolling average.

*Based on records reviewed the 12 month rolling emissions for March 2014 was 0.5 tons per year. This is well below the permitted limit.*

NOTE: Acetone is no longer considered a VOC by the Environmental Protection Agency.

**I. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate EUSTAIN unless all respective water wash systems are installed, maintained and operated in a satisfactory manner.

*Based on observations, the water wash system appeared to be in place and operating properly.*

2. The permittee shall equip and maintain EUSTAIN with HVLP applicators or equivalent technology with comparable transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing.

*This is being done. The facility does keep the caps available and does pressure tests on the applicators as appropriate.*

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

1. The permittee shall determine the VOC content, water content, and density of each stain, as applied and as received, using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data derived from Method 24 testing. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance.

*On April 26, 2013 the AQD gave NBHX approval to use manufactures formulation data for this emission unit.*

**VI. MONITORING/RECORDKEEPING**

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the 15<sup>th</sup> day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting, or notification special condition.

*Based on records reviewed this appears to be being done.*

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both, as deemed acceptable by the AQD District Supervisor.

*This is being done and according to Mr. Madden, Mr. Andy Boddy, Consultant, updates the recordkeeping spreadsheets to incorporate any new information.*

3. The permittee shall keep the following information on a monthly basis for EUSTAIN:
  - a. Gallons (with water) of each stain, purge, and clean-up material used.
  - b. VOC and acetone content of each stain, purge, and clean-up material as applied.
  - c. VOC and acetone mass emission calculations determining the monthly emission rate in tons per calendar month.
  - d. VOC and acetone mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

*According to Mr. Madden, the stain and acetone are checked out of the coating storage room and the usage is based on these records and a monthly inventory that is completed. The formulation record spread sheet is kept up to date. The rest of the information above is kept as required and used to calculate the monthly emissions.*

## **VII. REPORTING**

Reporting requirements for this facility are the standard conditions that AQD includes in any Title V facility permit with no additional conditions.

*These reporting conditions have been complied with as required.*

## **VIII. STACK/VENT RESTRICTIONS**

The facility has maximum exhaust and minimum diameter restrictions on the stacks for this emission unit. Based on a visual observation of the stacks from the road, the height listed in the ROP appeared to coincide with the actual stack heights. The stacks were not actually measured by JD during the inspection.

## **IX. OTHER REQUIREMENTS**

1. All waste materials shall be captured and stored in closed containers and shall be disposed of in an acceptable manner in compliance with all applicable rules and regulations.

*Based on observations at the facility a description of how waste handling is done from Mr. Madden, this appears to be done as required.*

2. The permittee shall not operate the emission unit unless the NBHX Trim Corporation Malfunction Abatement and Preventative Maintenance Plan has been implemented and is maintained. Any modification shall be submitted to the AQD District Supervisor for approval.

*The AQD has a copy of the plan. No modifications have been made.*

## **EUMODELSHOP**

Manual bench-top spray booth used for touch-ups to wooden interior automotive parts.

### **I. EMISSION LIMIT(S)**

1. Acetone emissions are limited to 4.0 tpy based on a 12-month rolling time period as determined at the end of each month.

*Based on records reviewed the 12 month rolling emissions for March 2014 was 0.0 tons per year. This is well below the permitted limit.*

2. Styrene (CAS No. 100-42-5) emissions are limited to 0.73 pph based on test protocol.

*According to Mr. Madden, styrene is not a component of the touch-up materials that have been in use since permit issuance, so no testing has been done. They have submitted a "no net hazard" demonstration. There has also been a meaningful change demonstration completed that determined the change from the material in the application to the current material was not a meaningful change. The material in the application had already been tested previous to the permit issuance.*

### **II. MATERIAL LIMIT(S)**

1. Coatings usage is limited to 4,380 gallons per year based on a 12-month rolling time period as determined at the end of each calendar month.

*Based on records reviewed the 12 month rolling coating usage for March 2014 was 2,981 per year. This is well below the permitted limit.*

2. Styrene content of all coatings is limited to 50 percent by weight as applied based on an instantaneous time period.

*As stated above, the material being used does not contain styrene.*

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall capture all waste coatings and cleanup solvents and shall store them in closed containers. The permittee shall dispose of all waste coatings and cleanup solvents in an acceptable manner in compliance with all applicable state rules and federal regulations.

*Based on observations, this appears to be done properly and accordance with best practices.*

2. The permittee shall dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air.

*Based on observations, this appears to be done properly and accordance with best practices.*

3. The permittee shall handle all VOC and / or HAP containing materials in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary.

*Based on observations, this appears to be done properly and accordance with best practices.*

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate EUMODELSHOP unless its respective exhaust filter is installed, maintained, and operated in a satisfactory manner.

*Based on observations made at the time of the inspection, this appears to be being done properly.*

2. The permittee shall equip and maintain EUMODELSHOP with HVLP applicators or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing.

*This is being done. The facility does keep the caps available and does pressure tests on the applicators as appropriate.*

**V. TESTING/SAMPLING**

1. Within 180 days of issuance of this permit (03/18/2013), the permittee shall verify styrene emission rates from EUMODELSHOP by testing at owner's expense, in accordance with Department requirements. This may include laboratory testing as opposed to stack testing. The permittee must complete the test once every five years, thereafter. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.

*As stated above, the facility has adjusted the material being used to one that does not contain styrene. If the facility begins to use a styrene containing component, this testing will be required.*

**VI. MONITORING/RECORDKEEPING**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.

*Based on the records reviewed, this appears to be being done in a timely manner.*

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.)

*This is being done and according to Mr. Madden, Mr. Andy Boddy, Consultant, updates the recordkeeping spreadsheets to incorporate any new information.*

3. The permittee shall keep the following information on a calendar month basis for EUMODELSHOP:
  - a. Gallons of acetone containing material used and reclaimed.
  - b. Acetone content of each material as applied.
  - c. Acetone mass emission calculations determining the monthly emission rate in tons per calendar month.
  - d. Acetone mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor and make them available to the Department upon request.

*According to Mr. Madden, the materials are checked out of the coating storage room and the usage is based on these records and a monthly inventory that is completed. The formulation record spread sheet is kept up to date. The rest of the information above is kept as required and used to calculate the monthly emissions.*

4. The permittee shall keep the following information on a calendar month basis for EUMODELSHOP:
  - a. Gallons (with water) of each coating material used and reclaimed.
  - b. Calculations determining the monthly usage rate in gallons per calendar month.
  - c. Calculations determining the annual usage rate in gallons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor and make them available to the Department upon request.

*According to Mr. Madden, the materials are checked out of the coating storage room and the usage is based on these records and a monthly inventory that is completed. The formulation record spread sheet is kept up to date. The rest of the information above is kept as required and used to calculate the monthly emissions.*

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.

*Based on records received this is being done as required by the permit conditions.*

## **VIII. STACK/VENT RESTRICTION(S)**

The facility has maximum exhaust and minimum diameter restrictions on the stacks for this emission unit. Based on a visual observation of the stacks from the road, the height listed in the ROP appeared to coincide with the actual stack heights. The stacks were not actually measured by JD during the inspection.

## **IX. OTHER REQUIREMENT(S)**

NA

## **EUPUR**

Resin injection mold application of a topcoat for wooden interior automotive parts. According to Mr. Madden, the facility is considering the installation of another one of these units. JD and Mr. Madden did discuss the necessary changes if this were to become reality.

**I. EMISSION LIMIT(S)**

1. VOCs are limited to 11.7 tpy based on a 12-month rolling time period as determined at the end of each calendar month.

*Based on records reviewed the 12 month rolling emissions for March 2014 was 3.81 tons per year. This is well below the permitted limit.*

**III. MATERIAL LIMIT(S)**

1. VOC content of non-reactive portion of the lacquer resin is limited to 10 percent by weight as received on an instantaneous time period.

*Based on records received the VOC content of the lacquer resin is 9.7%. This is below the permitted limit.*

2. VOC content of mold release is limited to 6.1 lb/gal(minus water) as applied on an instantaneous time period.

*Based on records received the VOC content of the lacquer resin is 4.8%. This is below the permitted limit.*

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall capture all waste coatings, curing agents, mold release materials, and cleanup solvents, and shall store them in closed containers. The permittee shall dispose of all waste coatings, curing agents, mold release materials, and cleanup solvents in an acceptable manner in compliance with all applicable state rules and federal regulations.

*Based on observations, this appears to be done properly and accordance with best practices.*

2. The permittee shall handle all VOC and/or HAP containing materials, including coatings, curing agents, mold release materials, and cleanup solvents, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary

*Based on observations, this appears to be done properly and accordance with best practices.*

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

1. The permittee shall determine the VOC content, water content and density of the mold release, as applied and as received, using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance.

*According to Mr. Madden, the materials were sent out to the lab for testing. Results have not yet been received.*

**VI. MONITORING/RECORDKEEPING**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.

*Based on the records reviewed, this appears to be being done in a timely manner.*

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.

*This is being done and according to Mr. Madden, Mr. Andy Boddy, Consultant, updates the recordkeeping spreadsheets to incorporate any new information*

3. The permittee shall keep the following information on a calendar month basis for EUPUR:
  - a. Gallons (with water) of each lacquer resin, mold release and cleanup solvent used.
  - b. VOC content (minus water and with water) of each lacquer resin, mold release and cleanup solvent as applied.
  - c. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
  - d. VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.

*According to Mr. Madden, the materials are checked out of the coating storage room and the usage is based on these records and a monthly inventory that is completed. The formulation record spread sheet is kept up to date. The rest of the information above is kept as required and used to calculate the monthly emissions*

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.

*Based on records received this is being done as required by the permit conditions.*

## **VIII. STACK/VENT RESTRICTION(S)**

The facility has maximum exhaust and minimum diameter restrictions on the stacks for this emission unit. Based on a visual observation of the stacks from the road, the height listed in

the ROP appeared to coincide with the actual stack heights. The stacks were not actually measured by JD during the inspection.

#### **IX. OTHER REQUIREMENT(S)**

NA

### **FGBOILERS**

This flexible group consists of two natural gas fired boilers each with a rated capacity of 10.5 MM BTU/hr and installed in 1990. The facility only uses one boiler at a time. The other boiler is used as a back-up.

#### **I. EMISSION LIMITS**

1. VOCs are limited to 0.06 pounds per hour based on a 24-hour rolling time period. Compliance with this limit is based on how much gas is used per day.

*The pounds per hour reported for March 16, 2014 was 0.055 lbs/hr. This was the highest pounds per hour reported in the month. This is below the permitted limit.*

2. VOCs are limited to 0.26 tons per year based on a 12 month rolling time period as determined at the end of each calendar month.

*Based on records reviewed the 12 month rolling total for March 2014 was 0.09 tons. This is well below the permitted limit.*

#### **I. MATERIAL LIMITS**

NA

#### **III. PROCESS/OPERATIONAL RESTRICTION**

1. The permittee shall not fire any fuels in the boiler except for natural gas.

*According to Mr. Madden, no other fuels are fired in the boilers.*

#### **IV. Testing/Sampling**

NA

#### **V. MONITORING/RECORDKEEPING**

1. Permittee shall maintain records of natural gas consumption for each boiler on a daily basis.

*This is being done as required. The facility uses a gauge and records the start and stop levels of the gas on a daily basis.*

2. The permittee shall keep, in a satisfactory manner, the following information:
  - a. VOC emission calculations used to determine the pounds per hour emission rate as determined at the end of each calendar month.

- b. VOC emission calculations used to determine the annual emission rate in tons per month and per 12-month rolling time period as determined at the end of each calendar month.

*This is being done as required.*

## **VI. REPORTING**

Reporting requirements for this facility are the standard conditions that AQD includes in any Title V facility permit with some additional conditions. The boilers are subject to subpart Dc. The other conditions incorporate some of those conditions. This will be further discussed later in this report under Appendix 8.B.

## **VII. STACK/VENT RESTRICTIONS**

The facility has maximum exhaust and minimum diameter restrictions on the stacks for this emission unit. Based on a visual observation of the stacks from the road, the height listed in the ROP appeared to coincide with the actual stack heights. The stacks were not actually measured by JD during the inspection.

## **VIII. OTHER REQUIREMENTS**

1. Permittee shall comply with all applicable portions of 40 CFR Part 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units and 40 CFR Part 60, Subpart A – General Provisions. Since the facility only burns natural gas, there are not many additional requirements to Subpart Dc.

*The facility appears to be doing all that is required.*

## **FGRTO**

The regenerative thermal oxidizer (RTO) controls the polyurethane and polyesters spray lines. This includes three spray booths and associated water wash systems, but does not include the uncontrolled dry and flash off areas. The three booths are named EUPOLYU, EUPOLYESTER-A, and EUPOLYESTER-B. EUPOLYU is no longer in operation due to declines in production. According to Mr. Madden, this unit is not as efficient as the other units. EUPOLYESTER-A still does the polyester finish coat, but the facility has been able to reduce the amount of coating usage on this booth dramatically and now is spraying only four coats of finish instead of around eight. EUPOLYESTER-B no longer sprays the polyester coating, now the topcoat sealer is sprayed on this line.

During the inspection, JD and Mr. Madden discussed some potential changes and some removals from this FG. Equipment has been moved around in the space, but all remaining equipment is still attached to the RTO as required.

This RTO is also subject to the Compliance Assurance Monitoring (CAM) rules.

### **I. EMISSION LIMITS**

1. VOCs are limited to 48.36 tons per year based on a 12 month rolling time period as determined at the end of each calendar month.

*Based on records reviewed, for March 2014, the rolling total was 30.26 tons. This is well below the permitted limit.*

2. Styrene is limited to 11.00 pounds per hour.

*The facility tracks the amount of time the unit is spraying a finish that contains styrene and how much coating is sprayed. The pounds per hour emissions are then calculated at the end of the calendar month. For March 2014, the hourly styrene emissions were 2.07 pounds per hour. This is well below the permitted limit. Since styrene is also considered a VOC, the styrene emissions are included in the VOC emissions listed above as required.*

## II. MATERIAL LIMITS

NA

## III. PROCESS/OPERATIONAL RESTRICTIONS

1. Permittee shall not operate the RTO unless the water wash system is in place and operating in a satisfactory manner.

*This was being done as required.*

2. Permittee shall equip and maintain the spray booth portion of FGRTTO with HVLP or equivalent applicator technology with comparable transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing.

*According to Mr. Madden, this is accurate.*

3. The permittee shall not operate FGRTTO unless the thermal oxidizer is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer includes a minimum VOC destruction efficiency of 95 percent (by weight), and maintaining a minimum temperature of 1450°F and a minimum retention time of 1.0 seconds.

*At the time of the inspection, the thermal oxidizer appeared to be operating properly. At the time of the inspection, the temperature was well above the minimum temperature required.*

4. An excursion for the RTO will occur if the temperature of the combustion chamber of the RTO is less than 1450°F during process operation.

*JD did not observe any indication of excursions and none were reported by the facility.*

5. An excursion for the capture system will occur if any observation that the capture system is not operating under a negative operating pressure is made.

*JD was unable to directly observe this, but no instances of this were reported by the facility.*

6. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the RTO and the associated capture system to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions).

*This is being done when and if it is required.*

7. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, in-frequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

*This is being done when and if it is required.*

8. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment.

*This is being completed as required*

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

#### **V. TESTING/SAMPLING**

1. Within five years from issuance of this ROP, the permittee shall verify the capture and destruction efficiency of the regenerative thermal oxidizer, by testing at owner's expense, in accordance with Department requirements. The permittee shall submit a complete test protocol to the AQD for approval at least 30 days prior to the anticipated test date. The AQD must approve the final plan prior to testing. The permittee shall notify the AQD no less than 7 days prior to the anticipated test date. Verification of emission limits includes the submittal of two complete reports of the test results to the AQD, one to the Technical Programs Unit and one to the district office, within 60 days following the last date of the test.

*This test was recently completed for the previous ROP (before renewal) and will be conducted within the five year period as required. According to Mr. Madden, there is no plan in the immediate future to do this test.*

2. The permittee shall determine the VOC content, water content and density of any coating, as applied and as received, using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance.

*On April 26, 2013 the AQD issued a letter allowing NBHX to use manufacturers formulation data.*

#### **VI. MONITORING/RECORDKEEPING**

This section of the permit is split up into portions of the coating operations and the unit that controls it. Most of the requirements below are associated with the CAM rules the facility must comply with. This permit has just recently been issued and some of the conditions in these sections have been added to or altered. The facility will be completing the maintenance exercises as they come up. The facility did not report any excursions in the annual compliance report.

**REGENERATIVE THERMAL OXIDIZER**

1. The permittee shall monitor, in a satisfactory manner, the temperature in the thermal oxidizer combustion chamber on a continuous basis in a manner and with instrumentation acceptable to the AQD.

*This is being completed as required.*

2. The permittee shall keep and review continuous records in a satisfactory manner, of the temperature in the thermal oxidizer combustion chamber.

*This is being completed as required*

3. On a once per shift or more frequent basis, the temperature on the LCD temperature monitor associated with the combustion chamber shall be recorded and compared to the temperature on the combustion chamber continuous chart recorder.

*This is being completed as required*

4. On a weekly or more frequent basis, the permittee shall conduct and document both an external and an internal inspection including, but not limited to, the gas regulators, signal strengths, burner, and chamber refractory to determine structural integrity of the RTO.

*This is being completed as required.*

5. On a monthly or more frequent basis, the permittee shall conduct and document an inspection of the UV detector for good condition, proper location and cleanliness.

*This is being completed as required.*

6. On a quarterly or more frequent basis, the permittee shall conduct and document an inspection of the igniter, verifying electrode condition and proper gap, and ceramic fiber lining.

7. On an annual or more frequent basis, the permittee shall conduct and document the following:

- a. an internal inspection to determine the operational condition of the interlocks, including oven flow damper and control device bypass damper and the integrity of the exhaust system (including dryer fan) from the process to the control device.
- b. calibration of the RTO combustion chamber thermocouple and chart recorder.
- c. an internal inspection of flame controls, burner, high and low temperature alarms, and shut off.
- d. an internal inspection of all valves for leakage and/or damage.

*This is being completed as required.*

**CAPTURE SYSTEM**

8. The permittee shall monitor, in a satisfactory manner, the static pressure of the capture system on a continuous basis in a manner and with instrumentation acceptable to the AQD.

*This is being completed as required.*

9. The permittee shall record the static pressure of the capture system on a once per operating shift basis, or more frequently.

*This is being completed as required.*

10. On a weekly or more frequent basis, the permittee shall conduct and document an inspection of valves, piping, signal strengths, control valves, motors, and linkages for signs of leaks, deterioration, or damage.

*This is being completed as required.*

11. On a monthly or more frequent basis, the permittee shall conduct and document an inspection of the damper plate seal and actuator to verify proper fit.

*This is being completed as required.*

12. On a quarterly or more frequent basis, the permittee shall conduct and document an inspection and lubrication of the damper and fan bearings.

*This is being completed as required.*

13. On a quarterly or more frequent basis, the permittee shall conduct and document an inspection of the damper seals. The damper seals shall be replaced on an as needed basis.

*This is being completed as required.*

14. On an annual or more frequent basis, the permittee shall conduct and document a calibration of the pressure sensor.

*This is being completed as required.*

## **COATING OPERATIONS**

15. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both.
16. The permittee shall keep the following information on a monthly basis for FGRT0:
  - a. Gallons (with water) of each coating, purge and clean-up material used;
  - b. Separate VOC, acetone, and styrene contents of each coating, purge and clean-up material, as-used and as-applied;
  - c. Styrene emission calculations used to determine the pounds per hour emission rate as determined at the end of each calendar month.
  - d. Mass emission calculations determining the monthly emission rate in tons per calendar month for the combination of VOC and acetone
  - e. Mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month for the combination of VOC and acetone; and

*These records are being kept as required. As stated above, the facility has a complex way of calculating emissions records. Some parameters bear defining in this case. A previous test of the RTO showed 95.9% destruction efficiency and 53.9% capture efficiency. The facility uses a total control number of 51.0% ( $93.9 \times 53.9$ ) for emissions from this flexible group.*

*The percent of styrene emitted is determined by multiplying the actual styrene content by the percent emitted. In the case of 6241 –  $37.7\%$  (content)  $\times$   $14.7\%$  (emitted of available) =  $5.5\%$  styrene emitted.*

*Emissions are then calculated thus: Material usage (lb)  $\times$  VOC content (% by weight)  $\times$  percent emitted after control = VOC emissions (lb).*

*All of these calculations appear to be accurate.*

## **VII. REPORTING**

Reporting requirements for this facility are the standard conditions that AQD includes in any Title V facility permit with some additional conditions. Since the RTO is subject to the CAM requirements, there are several other reporting requirements in addition to the normal Title V conditions. These additional conditions will be discussed below.

4. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions/exceedances and the corrective actions taken. If there were no excursions/exceedances in the reporting period, then this report shall include a statement that there were no excursions/exceedances.
5. Each semi-annual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime..
6. Each semiannual report of monitoring and deviations shall include a description of the actions taken to implement a Quality Improvement Plan (QIP) during the reporting period (if appropriate). If a QIP has been completed the report shall include documentation that the plan has been implemented and if it has reduced the likelihood of excursions or exceedances. *The facility does not currently have a QIP.*

*As stated above on several occasions, the facility submitted a certified report with no excursions/exceedances or monitor downtime for the 2013 annual report.*

## **VIII. STACK/VENT RESTRICTIONS**

The facility has maximum exhaust and minimum diameter restrictions on the stacks for this emission unit. Based on a visual observation of the stacks from the road, the height listed in the ROP appeared to coincide with the actual stack heights. The stacks were not actually measured by JD during the inspection.

## **IX. OTHER REQUIREMENTS**

1. The permittee shall notify the AQD of the need to modify the monitoring plan if the approved monitoring is found to be inadequate and shall submit a proposed modification to the plan if appropriate.

*This has thus far been unnecessary.*

2. The permittee shall, at all times maintain the monitoring system, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

*According to Mr. Madden, this is being done.*

3. The permittee shall comply with all applicable requirements of 40 CFR Part 60.

*This appears to be being done as required.*

4. Purged waste coatings and solvents from all coating applicators shall be captured and stored in closed containers and disposed of in an acceptable manner.

*Based on a description of these activities by Mr. Madden to JD (these activities were not observed) this appears to being completed as required.*

5. The permittee shall not operate the emission unit unless the NBHX Trim Corporation Malfunction Abatement and Preventative Maintenance Plan has been implemented and is maintained.

### FGDUST

This flexible group includes all six dust collectors that control the wood working equipment (Number 1, 2, 3, 4, 5, and 6). The dust collectors are separated into two systems, the East and West systems. These two systems are named as they are located adjacent to the building. The equipment is often times moved within the building to accommodate different production parts. All of the baghouses operated by the facility are used for any wood working operation that is deemed necessary. Equipment is moved to where it is needed and connected to the most appropriate baghouse.

#### **I. EMISSION LIMITS**

1. PM emissions are limited to 0.01 lbs/1000 lbs of exhaust gases calculated using a Test Protocol. This emission limit applies to each dust collector, individually, within FGDUST.
2. PM10 emissions are limited to 1.37 pounds per hour based on a Test Protocol. This emission limit applies to dust collector 6 within FGDUST.
3. PM10 emissions are limited to 2.57 pounds per hour based on a Test Protocol. This emission limit applies to dust collector 5 within FGDUST.
4. PM10 emissions are limited to 2.83 pounds per hour based on a Test Protocol. This emission limit applies to dust collector 2 and dust collector 3, each individually within FGDUST.
5. PM10 emissions are limited to 1.68 pounds per hour based on a Test Protocol. This emission limit applies to dust collector 1 and dust collector 4, each individually within FGDUST.

*Since the PM and PM10 emissions are calculated using only Test Methods, there are no actual emissions to discuss in this section.*

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUWESTDUSTSYSTEM and/or EUEASTDUSTSYSTEM unless the associated controls for each emission unit are installed and operating properly.

*This is being done as required.*

6. There shall be no visible emissions from any dust collector.

*No visible emissions were observed during the inspection time.*

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall equip and maintain each dust collector with a pressure indicator device.

*This has been completed as required.*

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years.

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years.

1. The permittee shall monitor and record the static pressure drop across each dust collector once per calendar day when the individual dust collector is operating.

*This is done as required.*

2. For each dust collector, the permittee shall perform (non-certified) visual observations for opacity, and record results, on a daily basis when the individual dust collector is operating.

*See Appendix 3 discussion.*

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

The facility has maximum exhaust and minimum diameter restrictions on the stacks for this emission unit. Based on a visual observation of the stacks from the road, the height listed in the ROP appeared to coincide with the actual stack heights. The stacks were not actually measured by JD during the inspection.

**IX. OTHER REQUIREMENTS**

1. The permittee shall not operate FGDUST unless the NBHX Trim Corporation Malfunction Abatement and Preventative Maintenance Plan has been implemented and is maintained. Any modifications shall be submitted to the AQD District Supervisor for approval.

*There are no modifications at this time.*

#### FGRULE 287(c)

This flexible group regulates all emission units that use 200 gallons or less of coating per calendar month. The facility is required to record usages for each unit on a per calendar month basis. The facility is allowed to add or take away these types of emission units as needed.

*At the time of the inspection, the facility had three of these units (airbrush and edge painting). The units were airbrush tables, edge painting, and model shop. Most of these units are used for touch-up purposes. The usage in the booths combined for May 2012 was less than 180 gallons. This is well below the permitted limit.*

#### FGRULE290

This flexible group regulates all emission units that have emissions below a specific amount and are not required to have a permit. The facility is required to calculate emission for each unit on a per calendar month basis. The facility is allowed to add or take away these types of emission units as needed.

*At the time of the inspection, the facility was utilizing Rule 290 for its casting operations. The total emissions from the casting operations below Rule 290 limits.*

#### FGCOLDCLEANERS

This emission unit includes all cold cleaners that are typically exempt from permitting. The facility has only one unit that would have been exempt from permitting under the Rule 201 exemption, Rule 281 (h) – surface area of 10 square feet or less.

*The unit was closed and labeled at the time of the inspection.*

### **APPENDICES**

This section will discuss only the appendices in the permit that have a relevance to compliance status of the facility or one in which an action must be taken. Therefore, not all Appendices will be discussed.

#### **Appendix 3. Monitoring Requirements**

This Appendix relates to the monitoring requirements for the visual observations taken during non-certified readings on the baghouses that control the wood working operations. There are several comments that need to be made if emissions are observed, i.e. the color, duration, etc.

*This is being done by the facility.*

#### **Appendix 8. Reporting**

This Appendix deals specifically with the additional reporting requirements for the boilers under Subpart A and Dc.

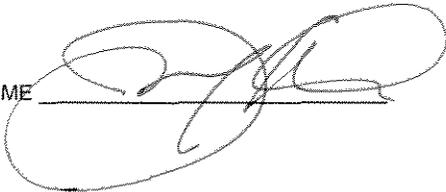
*Based on observations made at the time of the inspection and discussions with Mr. Madden, the facility is completing these as required.*

#### **Appendix 9. Stack Identification**

This Appendix states that all the stacks identified in the permit shall be labeled with the appropriate number in the permit. According to Mr. Madden, this has been completed, however some of the stacks have been removed and are no longer in service. This list will need to be updated during the next ROP renewal.

NOTE: *Please see attached records for more detailed information regarding the specific facts and background for the information listed above.*

Based on observations made at the time of the inspection and necessary information gathered after the inspection via e-mail from Mr. Madden, NBHX appears to be in compliance with all applicable Air Quality rules and regulations and Title V Permit No. MI-ROP-N2614-2012a.

NAME 

DATE 5/15/14

SUPERVISOR PAB

