

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

P096650250

FACILITY: John Johnson Company		SRN / ID: P0966
LOCATION: 15500 Oakwood, ROMULUS		DISTRICT: Detroit
CITY: ROMULUS		COUNTY: WAYNE
CONTACT: Mark Flood, Vice President of Manufacturing		ACTIVITY DATE: 08/30/2019
STAFF: Stephen Weis	COMPLIANCE STATUS: Compliance	SOURCE CLASS: Minor
SUBJECT: Compliance inspection of the John Johnson Company facility in Romulus. The John Johnson facility is scheduled for inspection in FY 2019.		
RESOLVED COMPLAINTS:		

Location:

John Johnson Company (P0966)
15500 Oakwood Drive
Romulus 48174

Date of Activity:

Friday, August 30, 2019

Personnel Present:

Steve Weis, EGLE-AQD Detroit Office
Mark Flood, Vice-President of Manufacturing, John Johnson Company

Purpose of Activity

A self-initiated inspection of the John Johnson Company facility (hereinafter "John Johnson") in Romulus was conducted on Friday, August 30, 2019. The John Johnson facility was on my list of sources targeted for an inspection during FY 2019. The purpose of this inspection was to determine compliance of operations at the John Johnson facility with applicable rules, regulations and standards as promulgated by Public Act 451 of 1994 (NREPA, Part 55 Air Pollution Control), and with applicable Federal standards.

Facility Site Description

The John Johnson facility is located on the west side of Oakwood Drive in the Oakwood Industrial Park, which is located on the west side of Interstate 275 between Eureka and Pennsylvania Roads, and bounded by the CSX railroad tracks and associated right-of-way to the west. The industrial park stretches about ½ mile south from Eureka, and it is bounded to the south by the FCA (Fiat Chrysler Automotive) Mopar Romulus Parts Distribution Center, which began operations in December of 2017.

The John Johnson facility operates in a 40,000 square foot building located on a parcel of land about 3 acres in size that is bounded by the railroad right-of-way to the west, and the Woodbridge Foam Corporation (M4492) to the south, separated by a small forested parcel just under 3 acres in size. The area around the industrial park is mostly open land, and the Detroit Wayne County Metropolitan Airport property is located to the northeast of the facility. The closest residential area is located along South Huron River Drive, about ½ mile to the west of the facility.

John Johnson moved to this location in March of 2019 from their former location at 274 South Waterman Street in Detroit (SRN P0675). The company had to move from that location due to the pending construction of the Gordie Howe International Bridge; the location of their former facility is within the footprint of the Port of Entry/Customs area for the bridge. The company ceased operations at the Waterman Street facility in February of 2019, moved to the current Romulus location in March, and started full operations in April of 2019.

Facility Operations

According to a company description provided by John Johnson that is associated with their website (www.johnjohnsonco.com), the John Johnson Company was founded in 1886, and they specialized in manufacturing horse and buggy covers, canopies, tents, and boiler and steam pipe covers. The company currently manufactures textile products servicing industrial, military and automotive markets, with products ranging from seat cushions, tops, covers and cargo assemblies for military vehicles, tarps, boat covers, awning covers, and the inside insulated lining for medical devices such as MRIs and CT Scan machines. The textile materials used to manufacture the products include untreated canvas, polyethylene tarpaulins, water resistant treated tarpaulins, vinyl laminated tarpaulins, fire resistant treated tarpaulins, vinyl coated nylon/polyester tarpaulins, neoprene & hypalon tarpaulins & mesh tarpaulins. I was told during the site visit that current customers include Oshkosh Defense, Navistar, the US Department of Defense.

As previously mentioned, facility operations take place inside of a 40,000 square foot building. The materials that are used at the facility are received at the southwest bay door, and the area at the southwest corner of the building is used for material storage. From the receiving and storage area, the material goes to the production area which consists of cutting tables, where material is cut to size, and sewing stations, where pieces of material are sewn to create products. Some of the products are created by sealing the seams of the base material together. This is accomplished using a RF (radio frequency) heat sealing process, which takes place in the northern portion of the production part of the building.

Some of the tops, covers and tarps are sprayed with a coating to paint decals, emblems and patterns on these products. The coatings are applied in a paint booth, which is located at the west end of the building. The paint booth is a Col-Met unit that has dimensions of 20 feet wide, 30 feet long and 10 feet in height. The booth is equipped with a Col-Met CT Series Air Makeup Unit that filter and conditions the air that enters the booth. The booth is a downdraft booth that operates at 75° F, and coated material is cured in the booth for 6 minutes at 100° F. The canvas products that are coated in the booth are put on frames to stretch the material to allow for coating, with the frames being moved into the booth, and removed after the coating is applied to the material and cured, and allowed to cool down for a few minutes. The paint booth vents through filters associated with the downdraft system, and eventually to the ambient air through two small vents located on the wall of the shipping bay near the northwest corner of the building. There is also a larger vent on this wall that is the intake vent for the paint booth.

Climate control for the office portion of the building is provided by a standard HVAC system. The manufacturing portion of the building is heated using ceiling-mounted natural gas-fired radiant heaters. The facility does not currently have any emergency engines/generators.

Inspection Narrative

I arrived at the facility at 9:15am. I was met by Mark Flood, and we went to his office on the second floor of the office portion of the facility. We started by discussing the company's recent move. Mark told me that John Johnson moved to the Romulus facility in March of 2019, and that they started using the paint booth in April. He told me that the company moved out of their location on Waterman Street in Detroit on February 28, 2019, and that they had ceased using the paint booth at that facility in December of 2018.

Mark provided me with some background regarding the Romulus facility. He told me that the building is 40,000 square feet, including a 10,000-foot addition to the north side of the building that was added for more storage. He told me that the facility currently operates one shift Monday through Friday from 7am – 3:30pm, and that there are currently 25 employees.

Mark described the types of products that are made at the facility. We walked to an entrance to the manufacturing area located off of the hall outside of his office. We were still on the second floor, so we were able to look out over the production area. Mark pointed out the receiving bay, the cutting operations, the sewing stations, and the paint booth at the back of the facility. We went down the stairs and walked through the production portion of the facility. We started at the southwest bay door where fabric material is received, and then walked by the cutting tables, and the sewing stations.

We walked to the north end of the building, and Mark pointed out the K-bar RF (radio frequency) sealing process that is used on some of the products, and a storage area. We walked towards the northwest corner of the building where we saw a sewing line that is used to create the liners for CT Scan and MRI machines, and the shipping area.

We then took a look at the paint booth. The unit was not in operation at the time; it is a low-usage process. We

looked inside of the booth, and Mark showed me how canvas products are put on frames to stretch them out so that patterns can be sprayed onto the material. I located the manufacturer plates on the paint booth and the air makeup unit, and I wrote the information from the plates in my notes; this information included the serial number for the paint booth, the name/model of the air makeup unit, and the website of the manufacturer of the booth and the makeup unit. Mark told me that all of the paint that is used in the booth is no-mix paint – it comes pre-mixed, and the paint container is put in a shaker prior to used. The paint containers are opened up inside of the booth. Mark told me that the paint is applied using air atomized applicators, and that instead of paint cups, the paint is fed to the applicator using gravity from the paint supply. Mark said that the paint booth is designed so that paint cannot be sprayed until the booth is at proper pressure.

I asked Mark how the building is heated, and if there are any boilers in use at the facility. He described the heating and cooling system for the office and manufacturing portions of the building, and he told me that there are no boilers at the facility. I asked whether there were any emergency generators/engines at the facility, and Mark replied that there are not.

After walking through the building, we had some closing discussion summarizing the site visit. Mark provided me with coating usage records that summarize the amount of coating that has been used in the facility's paint booth since the Romulus facility opened in march of this year, as well as copies of the Safety Data Sheets for the coating materials that are used in the paint booths.

I left the facility at 10:10am.

Permits/Regulations/Orders/Other

Permits

The John Johnson facility does not have any active permits issued by EGLE-AQD. There were no Permits to Install (PTIs) associated with the company's former facility on Waterman Street in Detroit. The only process equipment at the Waterman facility that may have been subject to PTI requirements was the paint booth, and it was determined to be operating per the PTI exemption criteria put forth in Michigan Administrative Rule 287(2)(c).

The permitting status of the Romulus facility is the same. The paint booth is operating per the provisions of Rule 287(2)(c), which exempts it from the requirement to obtain a PTI. Per the provisions of Rule 287(2)(c), less than 200 gallons of coating are being used in the paint booth per month (287(2)(c)(i)); the paint booth exhaust system is equipped with a dry filter control which, according to the company, is installed, maintained, and operated in accordance with manufacturer's specifications, and follows a maintenance plan so as to minimize emissions (287(2)(c)(ii)); and the facility maintains records of the amount of coating that is used (287(2)(c)(iii)). The company provided me with records showing that 205 gallons of coating have been used at the facility this far in 2019, up through August 31, 2019. They are using the EGLE-AQD "Rule 287(2)(c) Permit to Install Exemption Record: Surface Coating Equipment" form to keep the records. Mark provided me with the records to date to show how much paint has been used since the Romulus facility began operation. He also described how the amount of paint that is used is tracked as it is used, and the usage can be tracked on monthly basis. A copy of the recordkeeping sheet that was provided to me is attached to this report. I was also provided with copies of the most recent coating purchasing invoices, and the Safety Data Sheets for the coatings, which are also attached to this report for reference.

The other parts of the production process also look to be exempt from AQD permitting requirements. The cutting tables involve cutting various fabrics to size for use in the end products that are produced at the facility. Any emissions from the cutting tables are vented to the in-plant environment, and I did not observe visible particulate emissions when material was being cut. The cutting table would appear to meet the PTI exemption criteria put forth in Administrative Rule 285(2)(vi). The sewing stations and the sealing process also vent to the in-plant environment, and they would appear to have minimal emissions (or presumably none in the case of the sewing stations).

As mentioned previously, there are no boilers in use at the facility. The ceiling-mounted heaters in the production area meet the PTI exemption criteria put forth in Rule 282(2)(b); they are natural gas-fired, and the maximum rated heat input capacity of these units is well below 50,000,000 BTU per hour.

Given the VOC content that is provided on the Safety Data Sheets for each coating, and assuming that, in

accordance with the requirements of Rule 287(2)(c), no more than 200 gallons of coatings (minus water) are applied in the paint booth per month, VOC emissions from the paint booth should be well under the 2,000 pounds per month emissions threshold put forth in Administrative Rule 610(7) for applicability with the requirements of Rule 610.

Based in the process equipment and potential air emissions sources that are currently in place and in operation, the facility should be a minor source of potential air emissions.

Compliance Determination

Based upon the results of the August 30, 2019 site visit, and a review of the facility's compliance records, the John Johnson Company facility on Romulus appears to be in compliance with applicable rules and regulations.

Attachments to this report: a copy of the Rule 287(2)(c) coating usage records summarizing the amount of coating that has been used in the paint booth since it commenced operation earlier in 2019; a copy of the Safety Data Sheets for the coatings that are used in the facility's paint booth.

NAME Steve Jan

DATE 10/2/19

SUPERVISOR JK