

N1010
MANILA

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

N101033247

FACILITY: EWI WORLDWIDE		SRN / ID: N1010
LOCATION: 13211 MERRIMAN, LIVONIA		DISTRICT: Detroit
CITY: LIVONIA		COUNTY: WAYNE
CONTACT: Ron Landwehr, Vice president, Operations		ACTIVITY DATE: 02/04/2016
STAFF: Terseer Hemben	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Wood Fabrication, Baghouses and PM cyclones		
RESOLVED COMPLAINTS:		

INSPECTED BY : Terseer Hemben, MDEQ
 PERSONNEL PRESENT : Ron Landwehr (VP, Operations)
 FACILITY PHONE NUMBER : (734)-367-8246
 Cell Phone: (734)-536-1638
 DATES OF INSPECTION : February 4, 2016
 SRN: N1010
 EWI Worldwide [Previously, U.S. Trailer Corp-Exhibit works]
 13211 Merriman Road, Livonia, MI 48150

FACILITY BACKGROUND:

The Exhibit Works Inc. (EWI) operates a wood construction business at the combined lots 31519 Pamco drive, 13211, and 13263 Merriman facility complex, Livonia, locations. EWI acquired the business from the U. S. Trailer Corp in September of 1994. The business name change to EWI Worldwide was effected after 2005

The acquired facilities came with equipment such as paint spray booth, vapor degreaser, and water wash processes. The wood construction involves cutting, sanding, polishing and painting. Wood cutting, grinding and polishing processes generate saw dust particulates. The facility utilizes baghouses for particulate emission minimization. The painting process generates volatile organic material particulates. The facility utilizes spray-paint booths for emissions control. EWI was exempt from permit to install application for the spray paint booths and bake oven under Rule 287 (c) since 1994. In order for the facility to continue operations under the exempt rule 287(c), the process needs to be continuously using less than 200 gallons of paint per month, and the exhaust system serving the booths must be equipped with a properly installed and operated particulate matter emission control system. Records generated owing to the process operation should be kept and maintained at the facility for examination. For the purpose of evaluating the validity of exempt rule, a scheduled inspection was necessary. The facility had not been inspected for over 22 years since the State of Michigan Department of Environmental Quality assumed jurisdictional regulatory authority over the Wayne County permit conditions.

INSPECTION NARRATIVE

I arrived at EWI on February 4, 2016 at 1110 hours. The purpose of my visit was to conduct a scheduled annual compliance inspection. Temperature at the hour was 33 F with wind speed 4.6 mph coming from the NW. Humidity was 72%. I was admitted onto the site by the Director of Productions/ (VP), Mr. Ron Landwehr. We exchanged introductory pleasantries and settled down for a pre-inspection conference session. I learned during the pre-inspection conference that several processes permitted for operation at the site were discontinued and equipment removed from the site. The processes included a Silk Screen Cleaning Tank and Exhaust (Permit# APC-5-06550), and a Silk Screening Print Operation (APC-5-06551). Mr. Landwehr escorted me around the facility for inspection, and answered all pertinent questions regarding equipment and operations. I observed all the points of operations that needed use of baghouses. The facility utilized localized baghouse applications. Each particulate material generating materials was equipped with dust collecting hood operated under negative pressure and coupled to twin baghouses. One of the twin baghouses was used at a time of operation while the other was on standby. Spent baghouses were deposited into a designated dumpster and hauled away by a contractor for disposal. The facility also operated a cyclone that was located outside the main building, but situated

within the walls of the building and the premise boundary. There were no fugitive saw dust emissions around the cyclone area. The cyclone was not exposed to ambient environment outside the property boundaries. We returned to the office for a post-inspection conference. I discussed my observations and solicited for feedback from Mr. Landwehr. I left the facility at 1200 hours.

Several Wayne County permits identifiably associated with the facility. The permits include C-6029 covering vapor degreaser, C-6030 covering paint spray booth and water wash, C-6762 and C-7247 covering paint spray booths and oven. The first permit number C-8004 covered a baghouse for control of table saws, planner, drum sander; jig saw, router table, disc sander, and radial jigsaw. The second permit number C-9895. The no. 1 and no. 2 spray paint booths had air flow capacity of 10000 cfm each. The VOC from the Booths 1, 2, and 3 were initially controlled using water curtain. EWI eliminated the water curtain and silk screening printing processes. The facility installed dry filters in spray paint booths as control device for VOC and particulate matter emissions from spray paint and bake oven that served the process equipment. The replacement met the requirements of Rule 620, which in part, limits a person from causing and emitting volatile organic compounds from wood paneling coating lines. The dry filters installed in the booths worked in a satisfactory manner in limiting VOC and PM emissions consistent with Exempt Rule 285 (vi) and (C).

COMPLAINT/COMPLIANCE HISTORY:

There has been no record of complaint attributed to EWI operations at the Merriman location.

OUTSTANDING CONSENT ORDERS:

None

OUTSTANDING LOV'S:

None

OPERATING SCHEDULE/PRODUCTION RATE:

The plant operated 8 hours per day, and 6 days a week or an alternative schedule of 10 hours per day, and 5 days per week in a year depending on the work demands. The machineries were designed to operate batch-wise, except when shut down for maintenance. Dust sweepers were used for removing saw dust from the building.

EQUIPMENT AND PROCESS CONTROL:

The EWI operated jigsaws, wood sanders and radial saws. The equipment was individually equipped with baghouses. Gaseous streams leaving the workshop areas were routed through the cyclone via ducts for cleaning. Large size particulates fell inside the work area. The spray paint booths were exempt from Rule 201 based on Rule 287(c). The one Bake Oven rated 750,000 BTU/hour with flow rate 11,000 cfm exhaust system serving the paint process used natural gas for heating. Transfer points for bulk materials or drop points were minimized. The facility was well equipped for particulate control. Each saw and grinding point was equipped with a designated hood and baghouse for collecting particulate matter generated during the process.

APPLICABLE RULES: Wayne County Department of Environmental Quality or/and DEQ-AQD Permit Conditions:

Based on Rules: R 336.1901; R 336.1201; R 336.1301, Rule 620; WC Permits number C-8004 and C-9895, It was determined after the scheduled inspection that:

1. In compliance – EWI demonstrated there had been no change or modification of process at the facility since the Ownership change consistent with Rule 219. However, the facility discontinued Silk Screen print operation, water curtain, associated tanks and exhaust systems.

Per Permit# C-8004

2. In compliance - EWI related the particulate emission from the baghouse did not exceed 0.00823 lbs. per hour nor 0.0086 tons per year [SC. 16]. The facility collected all emissions through baghouse operations characterized with high capture efficiency as specifications from manufacturer. Used

baghouses were sealed for disposal. The cyclone dust collector was located between walls on premises. Physical inspection indicated no particulates reintroduction to the ambient air occurred during the inspection [Page 1, Response# 2].

3. In compliance – EWI demonstrated there had been no visible emissions from cyclone dust collectors or baghouses [SC. 17]. Response from EWI stated there were no visible emissions from the bag houses. Visual inspection of cyclone baghouse observed the baghouse was cased in a bin, and the spent baghouse was easily removed when necessary. [Page 1, Response# 3].

4. In compliance – EWI stated the woodworking equipment was not operated unless the cyclone dust collector and baghouses were installed and operating properly [SC. 18]. Response from the EWI related the equipment was not run unless the cyclone was in operation. The only equipment connected to the cyclone dusty collector and baghouses were the two routers. The cutting process needed constant vacuuming for clearance of saw dust for enhancement of the cutting efficiency [Page 2, Response# 4].

5. In compliance – EWI demonstrated collectates from the cyclone dust collector and baghouses were handled and disposed of in an environmentally acceptable manner [SC. 19]. During the inspection, Staff observed the baghouses containing collectates were put in a dumpster and rolled out for disposal through a waste management company [Page 1, Response# 5].

Discussion of Applicable Rules

Rule: R 336.1901. There has not been any odor complaint involving EWI. There was no odor occurrence at the facility during this inspection (R 901.

R 336.1201: The spray booths equipment installed at the facility were covered by the WC permits; C-9895. However, the facility was exempt from Rule 201 under Rule 287(c) relative to the paint spray booth and bake oven installation and operation. However, the violation of Rule 287 (c) requires the EWI to apply for a PTI for the spray paint booths. A violation notice going out to the company is underway:

The baghouses were installed and operated properly. There has been no record of fugitive dust or exceeding opacity complaint or registered violation against the facility under the ownership of EWI. The baghouses were inspected and regularly replaced. Replaced baghouses were disposed using arrangements with contractors.

Rule 336.1620: The facility eliminated use of silkscreen, degreaser, and water wash processes. The water wash system was replaced with dry filters that served the spray paint booths and one bake oven. Rule 620 was not considered in the evaluation of emission compliance.

Rule 219-EWI filed for ownership and name change with the MDEQ took effect in 2005.

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS

This facility was not in need of fugitive dust management plan.

MAERS REPORT REVIEW:

The EWI submitted 2015 MAERS report timely. Emissions report were in compliance with MAERS requirements for minor source in HAPs and VOC. The VOC emissions were 4.70 tpy source-wide. There was no quantified HAP identified with the pollutant(s) listed in the MAERS.

List of Permits Associated with EWI

The combination of the processes from 3 addresses (13211, 13263, and 31519), and elimination of certain processes such as the vapor degreaser and silkscreen equipment condensed the following permits associated with facility complex:

C-6029 –vapor degreaser formerly located at 31519 Pameo St (void).

C-6030 – Binks Spray Booth formerly located at 31519 Pameo St (void).

C-6762- Binks Spray Booth formerly located at 31519 Pameo St (void).

C-7247 – Bake oven formerly located at 31519 Pameo St (void).

C-8004 Baghouse located at 13211 Merriman (void)

C- 9895 Spray Booth formerly located at 13263 Merriman

Review of records of used coatings submitted by EWI showed the presence of HAPs. The list of HAPs include Ethylbenzene, Methyl ethyl ketone, Methyl isobutyl ketone, Hexamethylene diisocyanate, Cu meme, Xylene, Formaldehyde, Toluene, Dibutyl phthalate, Methanol, Methyl methacrylate, Naphthenic acid, Nickel salt, 1,6-hexamethylene diisocyanate, Cobalt neodecanoate, Cobaltoctate,, Styrene, Naphthalene, 4-chlorobenzotrifluoride, Cyclohexene, methyl-, and Methyl alcohol.

Exempt Rule 287(c) EWI exceeded the coating usage limit that qualified the process for the exempt rule 287(c). Records submitted to AQD showed EWI used 396.7 gallons of coating in the month of January, 2014 as limited to 200 gallons a month. EWI has lost the status of exempt rule, hence all associated coating permits shall apply in emission compliance regulation.

Exempt Rule 285 (vi) and (C): EWI met the requirements of applying the exempt rule 285 (vi) and C because the facility installed down-drafted dry filters for the control of VOCs and HAPs. The spray booth filters were operational during the inspection. Records indicated regular service and maintenance of the equipment and proper disposal of spent filters and baghouses were conducted.

HAP Emissions-HAPs and VOCs were emitted from the EWI facility. Records submitted by EWI showed the combined HAPs + VOCs emissions were 4862.73 lbs. (2.44 tons) in 2014, and the amount emitted in 2015 were 8875.52 lbs. (4.49 tons). The facility emits combined HAPs in the amount less than 25 tpy and VOCs less than 2000 lbs. per month nor 100 tpy. The emission records qualify the facility as a minor source of HAP and VOC.

Record Keeping - EWI maintained standard record keeping. Pertinent records were kept and maintained onsite in both electronic and hardcopy formats.

FINAL COMPLIANCE DETERMINATION

This inspection determined the EWI facility operated in compliance with Wayne county permits in controlling HAPs, VOCs emissions, record keeping, visible emissions, particulate matter emission limits, baghouse management, and the name change requirements. However, the facility was not in compliance with the exempt status for Rule 287 (c). A violation notice was prepared for the EWI. The Company has shut down the production processes at the location and uninstalled the equipment. Staff confirmed on September 22, 2016 the EWI no longer operates business at the location. There is no need to send the violation notice.

NAME JH

DATE 9/23/16 SUPERVISOR JK