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

M442934328

FACILITY: INDUSTRIAL WOODFAB AND PACKAGING COMPANY		SRN / ID: M4429
LOCATION: 18620 FORT STREET, RIVERVIEW		DISTRICT: Detroit
CITY: RIVERVIEW		COUNTY: WAYNE
CONTACT: Rick Ott Jr., Manager		ACTIVITY DATE: 02/16/2016
STAFF: Terseer Hemben	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Particulate Matter and Odor Control		
RESOLVED COMPLAINTS:		

## INDUSTRIAL WOODFAB AND PACKAGING CO.

INSPECTOR: Terseer Hemben (DEQ)

PRESENT: Richard E. Ott Jr. (Manager, IWP)

Date of Inspection: February 16, 2016

SRN: M4429

Address: 18620 Fort Street, Riverview, MI 48193

Rule 336.1201; R 336.1331, R 336.2803, R 336.2804; R 336.1301; R 336.1901; R 336.1910; R 336.1911  
Federal Rule: 40 CFR 52. 21, Subparts (c) & (d)

Exemption References: R 336.1278; R 336.1285(I)(vi)(B)

## FACILITY BACKGROUND:

The Industrial Woodfab and Packaging Co (IWP) is a family owned business that was established in 1946 at Dearborn, Michigan. The business changed ownership in 1983 and moved to the Riverview location. IWP has 7 employees as full time crew, and 7 contract workers. The business manufactures customized wooden boxes used for shipping or exporting industrial products to customers. The facility operates a wood stove burner for space heating. The burner is exempt per R 278 and R 290, however the facility was permitted to install cyclone dust collector as an on emission control for particulate matter generated from saw operations. The equipment operated at site includes, jigsaws, radial saws, grinding tables and polishing bench. The saw dust particulate generating areas of the workshop are equipped with hoods and ducts. The hoods suck in gases containing particulates into ducts using low positive pressure that draws and delivers indoor gases into the cyclone dust collector. Cleaned gases from the dust collector are discharged into the ambient air. Hence, the federal rule 40 CFR 52.21, Subparts (c) and (d) regulates the amount of particulate matter emitted into the ambient air, and is administratively administered in conjunction with the state Rule 201(1) and considerations of Rule 370.

## INSPECTION NARRATIVE:

I arrived at the facility location, 18620 Fort Street, Riverview, MI 48193 on February 16, 2016 at 1100 hours. The purpose of visit was to perform a scheduled compliance inspection for quality assurance in emission compliance with rules regulating wood fabricating and construction processes. Temperature at the hour was 30 F, and wind speed 4.6 mph coming from the North. Humidity was 82%. I was admitted into the building by Mr. Richard Ott Jr, the manager. We held a pre-inspection conference and went over the inspection agenda items. Mr. Ott Jr. informed there had not been any modification of equipment or process at the facility. We walked through the process /production area and examined equipment that included hood systems in wood processing areas. We stepped outside the building and evaluated the performance of the cyclone dust collector. We returned to the office for post inspection conference. I left the area at 1220 hours.

**COMPLAINT/COMPLIANCE HISTORY:**

The IWP was cited for fugitive saw dust/ particulate violations and odor in the past. The violations were resolved through submission of a malfunction abatement plan for the processes.

**OUTSTANDING CONSENT ORDERS:**

None

**OUTSTANDING LOV'S:**

None

**OPERATING SCHEDULE/PRODUCTION RATE:**

The facility operates a regular 10-hour shift from 6:00 am to 4:00 pm. Occasionally, the facility may run an extended shift when workload demands such considerations.

**PROCESS DESCRIPTION:**

The IWP facility manufactures wooded containers for packaging and shipping products to local and international locations. Wooden crates and boxes are the main business lines. The floor plan for the process is in AQD files. The facility saws wood, grinds, polishes and builds containers as finish products. Wood chips and dust are discharged inside the building; however, fine particulates are sucked out of the building at the hood zones via ducts through the cyclone dust collector. The cyclone dust collector performance is monitored regularly for prevention of particulate discharge to the ambient due to clogs or malfunctions. Main pollutant emission from this process is fine wood particulates. Main units of operational concerns involve the cutting, grinding, sanding and cyclone operation. The process and cyclone dust collector were permitted under PTI# 172-12.

**EQUIPMENT AND PROCESS CONTROLS:**

The facility operated equipment installed for the process dating back to 1946. The equipment was regulated by Permit WC - 9531 when IWP assumed ownership of the plant in 1992. The Permit # C-8037 associated with the furnace was issued to cover the wood incinerating equipment became void on November 18, 2006. The facility applied for a PTI and was issued a permit by the DEQ-AQD for the process (PTI# 172-12) in 2012.

**APPLICABLE RULES/PERMITS CONDITIONS:**

Based on the federal rule: 40 CFR 52. 21, Subparts (c) & (d), WC - 9531 conditions, the operations of IWP was evaluated as-

1. In compliance - IWP stated there has been no change or modification of equipment or process at the facility since last permit was issued consistent with Rule 201.
2. In compliance –IWP demonstrated the particulate emissions from wood-fired furnace did not exceed 0.50 lbs. /1000 lbs. of exhaust gases corrected to 50% excess air [SC. 16]. Records submitted by IWP were results obtained from manufacturers testing that indicated compliance. Compliance was determined based on the calculation records of generated during permit review and supported by the data obtained from inspection conducted in 1992. Records submitted following the current inspection are located in item # 3 [Attachment Pg. 11].
3. In compliance – IWP demonstrated total particulate emissions from the wood fired furnace did not exceed 0.17 lbs. /hour or 0.41 tons/year [SC. 17]. IWP submitted test protocol emissions calculations for the furnace involving test outcomes that particulate emission from furnace was 0.13 lb./hour. Compliance was determined based on the calculations conducted during permit review and supported

by data obtained from the inspection conducted in 1992. Records submitted following the current inspection are located in item # 3 [Attachment pg. 11].

4. In compliance- IWP demonstrated the benzo-a-pyrene emissions from wood-fired furnace did not exceed 10.0 micrograms per cubic meter of exhaust gases corrected to 70 degrees F and 29.92 inches of mercury nor 9.0 E-06 lbs. /hour [SC. 18]. Calculations submitted after a protocol test indicated the VOC emission was 0.069 lb./hour. Compliance was determined based on permit review and inspection conducted in 1992. Records submitted following the current inspection are located in item#3 [Attachment Pg. 11]. The source is at liberty to operate under exempt 282(b)(iii) if the facility applies for the exemption.

5. In compliance-IWP demonstrated visible emissions from the wood- fired furnace did not exceed a six-minute average of 20% opacity [SC. 19]. Records submitted by IWP stated in writing the opacity did not exceed 20%. According to the records, the opacity was regularly checked, though not recorded. However, during the inspection, Inspector observed the opacity from the stack was 0% [Response Pg. 1, Item# 5]

6. In compliance- IWP demonstrated the disposal of collected ash from the hot air furnace was performed in a manner which minimized the introduction of air contaminants to the outer air [SC. 20]. IWP stated the ash was regularly cleaned out and bagged in trash bags and disposed through contractor arrangements consistent with Rule 370 requirements [Response # 6, Attachment Pg. 1]

7. In compliance – IWP demonstrated permittee did not operate the wood-fired hot air furnace for more than 4,800 hours per year, and a written log of the hours of operation was kept on file for a period of at least two years and made available to the Division upon request [SC. 21]. A log of hours of operation submitted indicated the furnace was operated 50-70 hours per week per 18-20 weeks and totaled 900-1400 hours of operation per year [Response # 7, Pg. 1].

8. In compliance - IWP demonstrated the permittee did not substitute any fuel for that described in this permit which would result in an appreciable change in the quality or any appreciable increase in the quantity of emission of an air contaminant without prior notification to and approval by the Division [SC. 22]. IWP presented records of wood purchase with vendor labels attached indicating the fuel was remnants from the same quality of chemically untreated wood used for manufacturing [Item# 8, Pg. 1].

9. In compliance - IWP demonstrated within 120 days after written notification from the Division, permittee verified particulate emissions from wood-fired furnace by testing at owner's expense, in accordance with Division requirements as required for operating approval. Stack testing procedures and location of stack testing ports must have prior approval by the District Supervisor, and results submitted within 30 days of completion of the tests [SC. 23]. AQD never requested for furnace testing [Pg. 11-12].

10. In compliance – IWP demonstrated the exhaust gases from wood-fired hot air furnace were discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 12 inches at an exit point not less than 32 feet above ground level [SC. 24]. Inspection confirmed the originality of stack design as physically constructed and discharged gases vertically unobstructed to the ambient air [Response# 10, Pg. 2].

11. In compliance –IWP stated after determination and written notification from the District Supervisor that emissions from the hot air furnace caused unreasonable interference with common public right to live free from foul or noxious odors the permittee took immediate action to abate to source of odors. The permittee should submit an abatement program for permanent resolution of the problem within 30 days of notification by the District Supervisor [SC. 25]. IWP stated the hot air furnace was free from obnoxious odors, and IWP had not had any complaints involving odors. Records of equipment operation located in AQD file indicated the facility replaced the wood incinerator with a G&S Miller hot air wood burner following a citation for violation of opacity in 1992.

Staff confirmed the assessment the equipment listed in PTI# 172-12: Equipment- Router, Undercut Saws, Panel Saws, Radial Arm Saws, A Notcher, and Re-Saws were all controlled by a cyclone dust collector.

12. In compliance- IWP did not need to demonstrate the maximum PM emissions from EUPROCESS1 did not exceed 0.05 lbs per 1000 lbs. of gas based on test protocol (SC. I.1). The AQD did not request testing for verification of this condition.

13. In compliance - IWP did not need to demonstrate the maximum emissions of PM10 from EUPROCESS1 did not exceed 1.8 pph. based on test protocol (SC. I.2). The AQD did not request testing for verification of this condition.

14. In compliance – IWP demonstrated the visible emissions from EUPROCESS1 did not exceed a six-minute average of 10 % opacity [SC. I.3]. Visual inspection confirmed there was 0% opacity at the time of inspection.

15. In compliance - IWP demonstrated permittee did not operate EUPROCESS1 unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the cyclone dust collector, was submitted within 90 days of permit issuance, and was implemented and maintained. The MAP, at a minimum, specified [referencing Response# 12, Pg. 2]:

a) In compliance – concerning a complete preventive maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air cleaning devices, a description of the items or conditions that would be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that were maintained in inventory for quick replacement [SC. III.1a]. A malfunction abatement plan was submitted on October 24, 2012 following a violation notice regarding fugitive dust complaint. The document is on DEQ-AQD file.

b) In compliance- concerning an identification of the source and air-cleaning device variables that were monitored to detect a malfunction or failure, the formal operating range of the variables, and a description of the method of monitoring or surveillance procedures [SC. III.1b]. A malfunction abatement plan submitted on October 24, 2012 addressed the cyclone dust collector as the specific cleaning device and variables that needed to abate future emissions. The document is on file.

c) In compliance-concerning a description of the corrective procedures or operational changes undertaken in the event of a malfunction or failure to achieve compliance with the applicable procedures [III.1c]. The malfunction abatement provided on October 24, 2012 identified corrective measures in place for abating malfunction occurrences. The document is in AQD file.

16. In compliance-IWP demonstrated the permittee did not operate EUPROCESS1 unless the cyclone dust collector was installed, maintained, and operated in a satisfactory manner [SC. IV.1]. Visual inspection confirmed the installation and operation of cyclone dust collector. The cyclone dust collector performed satisfactorily at the time of inspection [Response# 17, pg. 2].

17 In compliance - The records submitted by IWP indicated permittee completed all required records in a format acceptable to the AQD District Supervisor and made them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring recordkeeping special condition [SC. VI.1]. The format used by IWP in keeping records was acceptable to AQD .

18. In compliance – IWP stated the permittee maintained a log of all significant maintenance activities conducted and all significant repairs made to EUPROCESS1 cyclone dust collector. Permittee kept all records on file at the facility and made them available to the Department [SC. VI.2]. IWP responded that visual inspections of the cyclone dust collector were made daily, and the equipment was banged with a rod for purposeful loosening of any damp particulates that would pose a clog of the particle free-fall path. Records submitted satisfied the requirement during this inspection. The 0 % opacity emission from the equipment during the inspection justified compliance determination.

19. In compliance – IWP stated the exhaust gases from the 36 inches by 36 feet stack - SVCYCLONE listed in the table was discharged unobstructed vertically upwards to the ambient air unless otherwise noted [SC. VIII.1]. Visual inspection confirmed the compliance with the stack discharge requirements [Response# 20, Pg. 2].



**DISCUSSIONS**

Exemption Rules R 336.1278; R 336.1285(l)(vi)(B) applied to the IWP workshop processes. These processes included saws and grinders that generated saw dust discharged in the work area. Moreover, the Permit# 172-12 conditions cover the operation in which the saw dust and woodchips are collected and recycled as fuel for space heater. The heater was used for space heating and served as a recycle of saw dust generated during the process for fuel. The recycle minimized reintroduction of particulates into the ambient air per rule 1910 prohibitions.

**APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:**

This facility does not have nor is in need of a fugitive dust plan.

**FINAL COMPLIANCE DETERMINATION:**

The inspection of Industrial Woodfab and Packaging operation, and record keeping support the determination that IWP operated in compliance with the permit PTI No. 172 – 12, and WC Permit # C-9531. The regulatory requirements for the cyclone dust collector operation were complied with. However, the facility needs assistance with recordkeeping in the required format. AQD will support the facility in making that transition toward total compliance. In overall, the facility operated in compliance with operating permit conditions.

NAME fer

DATE

8/11/16

SUPERVISOR

JK