

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

N209032202

FACILITY: MALLOY INC		SRN / ID: N2090
LOCATION: 5411 JACKSON RD, ANN ARBOR		DISTRICT: Jackson
CITY: ANN ARBOR		COUNTY: WASHTENAW
CONTACT: Mike Surface		ACTIVITY DATE: 10/29/2015
STAFF: Zachary Durham	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled, unannounced inspection of facilities and equipment in PTI 49-06A.		
RESOLVED COMPLAINTS:		

Contact

Mike Surface

Mike.Surface@edwardsbrothersmalloy.com**Purpose**

Brian Carley and I arrived at Edwards Brothers Malloy (SRN # N2090) at just before 11:00am on October 29th, 2015 to conduct an unannounced, scheduled inspection of the facilities and equipment covered in their permit to install (PTI) 49-06A. The inspection's purpose was to determine compliance with Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) rules and special conditions of requirements of their permit, including Act 451, Air Pollution Control regulations. We signed in at the front desk and were met by Mike Surface, whom is the contact for AQD at this facility.

Background

Edwards Brothers Malloy operates 12 lithographic printing presses; 8 web-fed and 4 sheet-fed units. The company was a merger between Edwards Brothers and Malloy several years ago. Their operations mainly consist of black-only printing with some of their main customers being publishing companies like Pierson and McGraw Hill as well as projects for the University of Michigan.

The company is considered a synthetic minor source of volatile organic compounds (VOC) and has agreed to emission limits for individual pieces of equipment and source wide limits below those of major source thresholds. They are not subject to 40 CFR 63, Subpart KK that concerns printing and publishing industries because the lithographic presses used by the company do not fall into the two subcategories outlined by the MACT standard, which includes: (1) publication rotogravure printing and (2) product and packaging rotogravure and wide-web flexographic printing.

This facility was last inspected by Glen Erickson on 2/15/2012 and was determined to be in compliance. There continues to be an ongoing issue with the special conditions for the T-6 press, which includes material and time period/ operating scenario limitations. This was address during the last inspection and discussed with the permit engineer Vrajesh Patel. I have continued that conversation and included more comments in the compliance evaluation section below.

Since Glen's last inspection several presses have been removed, while several others have been added to the facility and are operating under PTI exemption Rule 290 and the source-wide flexible group. The removed presses include T-1, T-2 and T-5. The presses added include web-fed presses T-9, T-10, T-11 and sheet-fed presses HA, HT, HS, and HP.

Compliance Evaluation

Attached are the MSDS for the ink, alcohol substitute, fountain solution, and blanket and roller wash. The weight percentage of propyl alcohol, ethanol, and IPA is below 5% in the fountain solution, as written in the emission limit for all permitted presses. Additionally, the blanket and roller wash is also in compliance by having a vapor pressure less than 10 mmHg@20°C as stated under condition III(2)(f) for process/operational restrictions.

Emmision Units

EU-Litho-T4

This unit has emission limits on VOC at 5.4 pounds per hour (pph) and 5.4 tons per year (tpy). The latest 12-month rolling calendar (see attached) shows these emission levels at 4.0 pph and 2.94 tpy, which is in compliance with the permitted limits.

EU-Litho-T5

This unit has been removed from the facility.

EU-Litho-T6

This press shows 3.97 tpy of VOC during the last 12-month rolling calendar, which is below the 5.1 tpy limit.

Condition II has a material limit on the ink that states it shall contain no more than 28% by weight of Hydroheated Petroleum Distillate (CAS #6474-24-67). In addition to the material limit, an emission rate of 17.6 pound per 8 hour shift is included. The MSDS for the ink (attached) used in this press, which is also plumbed to all other web-fed presses, shows this chemical to be from 30-32% as listed by the manufacturer and above the 28% level. However, data provided by the company and my calculations show compliance with the 17.6 pound per 8 hour shift limit. After talking with Vrajesh Patel, Permit Engineer, it was unclear why both limits are present, especially considering these limits are not written into other emission units also using this ink. Vrajesh Patel and I discussed the eval form and determined that adherence to the 17.6 pounds per 8 hour shift is an adequate demonstration of compliance.

Per Glen's last inspection, it appears the material limit was introduced during the permit modification due to increasing hours of operation, that which has not occurred. The current emission rate is averaging 13.95 pounds per 8 hour shift.

EU-Litho-T7

This press had VOC emissions of 3.0 tpy, which is well below the limit of 10.9 tpy.

EU-Litho-T8

Records indicate VOC emissions of 3.32 tpy, which is below the permitted limit of 10.4 tpy.

Flexible Groups

FG-Litho-T1-T3

Both T1 and T2 have been removed from this facility. The emissions for the last 12-month rolling calendar reflect the emissions from T3 only. VOC is limited to 12 pph and 12 tpy and actual emissions show 3.19 pph and 2.68 tpy of VOC, both of which are below their permitted value.

FG-Facility

This flexible group contains source-wide emission limits of each individual HAP = <9.0 tpy, aggregate HAPs = <22.5 tpy, and VOCs = <90.0 tpy.

Aggregate HAPs for the facility total 4.69 tpy (see attached), which shows compliance for both individual and aggregate HAP emissions. Furthermore, the total VOC emissions from all combined processes (see attached documentation) add up to 30.19 tpy, which is also significantly lower than the permitted limit. The VOC total is the summation of all permitted and exempt processes.

Rule 290 Equipment

Attached are records documenting emission data for equipment that has not received a PTI, but rather using emission limits outlined by permit exemption Rule 290. The pieces of equipment covered under this PTI exemption include T9, T10, T11, HA, HT, HS, and HP. The records appear to show that each piece of equipment is below the allowable limits for emissions for their respective initial threshold screening level (ITSL). Of initial concern was the manganese compounds used in Press HA, which shall not exceed 20 pounds per month uncontrolled, though actual emissions are just above 2 pounds per month. All other permit exempt presses use chemicals with an ITSL allowing emissions that shall not exceed 1000 pounds per month uncontrolled. Press HP has a combined average emission of just over 800 pounds per month and is the highest emission unit of these permit exempt presses.

Summary and Recommendations

I have determined this facility to be in compliance with the conditions listed in their permit.

This determination has come after thorough review of the documentation provided to me, a facility tour as well as conversations with both Vrajesh Patel and Mike Surface. Vrajesh and I agree that it would be beneficial for the company to apply for a permit modification in order to remove the material limit discussed in EU-Litho-T6. If it is deemed that the emission rate is not adequate by itself, it may be appropriate to include a limitation on operating hours to achieve the same results.

I also recommend that T1, T2 and T5 units be removed from the permit at this time since they have been physically removed from the facility.

NAME Zack Durham

DATE 11/18/19

SUPERVISOR 