

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

N093168668

FACILITY: Modineer		SRN / ID: N0931
LOCATION: 2200 East Empire Avenue, BENTON HARBOR		DISTRICT: Kalamazoo
CITY: BENTON HARBOR		COUNTY: BERRIEN
CONTACT: Mark Weaver , EHS Manager		ACTIVITY DATE: 06/07/2023
STAFF: Rachel Benaway	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: On-site inspection to verify compliance with all state and federal air use regulations.		
RESOLVED COMPLAINTS:		

AQD staff (Rachel Benaway) completed an unannounced air quality inspection of Modineer (N0931), a powder and electrocoating (E-coating) operation, located in Benton Harbor, MI, on 6/7/2023. The purpose of this inspection was to verify Modineer is in compliance with their Permit to Install (PTI) #171-12 and all state and federal air use regulations. Modineer is considered a minor source of hazardous air pollutants (HAPs), nitrogen oxides (NOx), sulfur oxides (SOx), carbon monoxide (CO), lead (Pb), particulate matter (PM), and volatile organic compound (VOC) emissions. The facility is not subject to any New Source Performance Standards (NSPS) or National Emission Standards for Hazardous Air Pollutants (NESHAP). Keith Belew is the Business Unit Leader for the facility and was present for the on-site inspection. Mark Weaver is the Environmental Health and Safety Manager and is responsible for submitting requested records. Personal protection equipment includes safety glasses and safety shoes.

Modineer operates 3 shifts per day, 5 days a week, and employs approximately 106 people to powder and electrocoat automotive parts like bumpers, motor cans, and battery boxes for commercial and military clientele. Since the last inspection in 2012, no new equipment has been installed and no modifications have been made to any existing equipment. There are no boilers or emergency generators on site. Formerly known as Summit Industrial Coatings, the facility was sold to Modineer Coatings Division – North, in 2015. Staff requested and received a written statement from the new owner, Allen Pixley (Chief Operations Officer), accepting all conditions and requirements of PTI #171-22.

#	Equipment at Facility
1	E-coating line with two-part dehydration and cure oven
1	Powder coating line with associated cure oven (Exempt Rule 287(2)(d))
	Various machining equipment (Exempt Rule 285(I)(vi))
1	Burnoff oven (EU-BURNOFF)

The following is a summary of information obtained from the on-site inspection and the submittal of requested records. Where applicable, compliance determinations are indicated for each special condition established in the PTI, organized by emission unit or flexible group.

Powder Coating Line

The powder coating line utilizes an overhead monorail conveyor to transport parts through a 5-stage spray wash pretreatment system and then a forced air dry-off oven. An electrostatically charged powdered resin and pigment mixture is then applied in an environmental room, adhering to the metal parts as they pass through a convection cure oven. The oven temperatures are monitored with a daily log. Rule 287(2)(d) exempting the line from permitting requires the line to

be equipped with fabric filter control. The facility reports that the filters are replaced approximately once a month, based on consistent visual inspections.

E-coat Line

The E-coating line also uses an overhead monorail conveyor to move parts. After the spray wash pretreatment system, parts are submerged in the electrodeposition epoxy coat tank containing a mixture of resin, paste, and water with a 6-to-1 paste-to-resin ratio. After electroplating, the parts go through a 2-stage rinse system, a 2-part dehydration (bottom) and cure (top) oven, and a final cooling stage. The facility reported the line could process approximately 6,000 units in one day. After the last inspection in 2012, Staff issued a Rule 201 Violation Notice for lack of recordkeeping for the coating usage and lack of permit for the E-coat line. A permit application was submitted and it was determined that the line could qualify for an exemption under Rule 287(c)(i) (coating usage rate under 200 gallons, as applied, minus water, per month). After this inspection, records were requested for coating usage. The submitted records indicated the facility was exceeding the 200 gallons per month limit. A Violation Notice was issued for a Rule 201 (lack of permit) violation.

EU-BURNOFF (for e-coat line)

One batch-type natural gas-fired burnoff oven with secondary chamber or afterburner, used to remove cured paints, oil, or grease from metal parts by thermal decomposition in a primary chamber.

Pollution Control: Afterburner

Make/Model: Honeywell UDC 2500

SC	Condition	COMPLIANT?
I.1	No visible emissions from EU-BURNOFF	Yes
II.1	Burn only natural gas in EU-BURNOFF	Yes
II.2	May not process any material in EU-BURNOFF other than cured paints, oil or grease on metal parts, racks/hangers	Yes
III.1	Shall not use EU-BURNOFF for thermal destruction or removal of rubber, plastics, uncured paints, or any other materials containing sulfur or halogens (chlorine, fluorine, bromine, etc.) such as plastisol, polyvinyl chloride (PVC), or Teflon	Yes
III.2	Shall not load any transformer cores, which may be contaminated with PCB-containing dielectric fluid, wire or parts coated with lead or rubber, or any waste materials such as paint sludge or waste powder coatings into EU-BURNOFF	Yes
IV.1	Shall not operate EU-BURNOFF unless a secondary chamber or afterburner is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of secondary chamber or afterburner: maintain minimum temperature of 1400degF and minimum retention time of 0.5 sec.	Yes
IV.2	Shall not operate EU-BURNOFF unless automatic temp control system for primary chamber and secondary chamber or afterburner is installed, maintained, and operated in a satisfactory manner.	Yes
IV.3	Shall not operate EU-BURNOFF unless and interlock system that shuts down the primary chamber burner when secondary chamber or afterburner is not operating properly is installed, maintained, and operated in a satisfactory manner.	Yes
IV.4		NO

Shall install, calibrate, maintain, and satisfactorily operate a device to continuously monitor the temperature in the burnoff oven secondary chamber or afterburner and record the temperature at least once every 15 minutes.

Comment: Datalogger installed. Photo demonstration sent on 8/3/2023.

- IX.1 Shall not replace or modify any portion of EU-BURNOFF, including control equipment, unless all of the following conditions are met: Yes
 - a) Shall update the general permit by submitting a new Process Information Form (EQP5784) to the Permit Section and District Supervisor, identifying the existing and new equipment a minimum of 10 days before the replacement or modification.
 - b) Shall continue to meet all general permit to install applicability criteria after replacement or modification is complete.
 - c) Shall keep records of date and description of replacement or modification.

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
VI.1	Continuously monitor the temp in burnoff oven secondary chamber or afterburner and record temp at least once every 15 minutes. Comment: Datalogger installed. Photo demonstration sent on 8/3/2023. Temperature records can now be maintained.	NO
VI.2	Calibrate the thermocouples associated with primary and secondary chambers at least once per year.	YES
VI.3	Keep temp data records for burnoff oven secondary chamber of afterburner (5 years) and make available upon request. Comment: Datalogger installed. Photo demonstration sent on 8/3/2023. Temperature records can now be maintained.	NO
VI.4	Keep records of date, duration, and description of malfunction of control equipment, maintenance performed and testing results for EU-BURNOFF on file and make available upon request. Comment: The facility sent records of maintenance performed from April to July 2023 because they did not have a system of tracking services rendered. They have since purchased a maintenance tracking software (FIIX) and will track these activities from now on.	NO
VI.5	Maintain current list from manufacturer of chemical composition of each material (cured coating, oil, or grease) processed in EU-BURNOFF, including weight percent of each component. Data may be MSDS, manufacturer's formulation data, or both.	Yes
VI.6	Maintain current info from manufacturer that EU-BURNOFF is equipped with secondary chamber or afterburner, an automatic temp control system for primary and secondary chambers or afterburner, and an interlock system that shuts down primary chamber burner when secondary chamber or afterburner is not operating properly.	Yes

Staff requested and received records of successful thermocouple calibrations for the previous 4-year period. The facility had not yet received the certification for the current year's successful calibration.

Staff requested temperature data records for the burnoff oven afterburner, records of malfunctions or routine maintenance on the oven, an MSDS for the resin and paste for the e-coat line, and

manufacturer information demonstrating the safety features of the oven. Records were not received in the allowed timeframe and temperature data records for the oven could not be submitted because the oven was never equipped with a datalogger to record the information. A Violation Notice was issued for the design/equipment parameter and recordkeeping condition violations. The facility eventually submitted a photograph of the newly installed datalogger, the requested MSDS for coatings, and manufacturer manuals for the oven indicating it is equipped with the required safety features.

At the time of this inspection, the facility was not in compliance with all requirements of PTI #171-12. Two Letters of Violation were issued but have since been addressed and resolved with the submittal of requested records and a PTI application.

NAME Rachel Saraway

DATE 8/18/2023

SUPERVISOR Mark W.