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

P092273772

FACILITY: Cadillac Fabrication, Inc.		**SRN / ID:** P0922
LOCATION: 1340 Marty Paul Street, CADILLAC		**DISTRICT:** Cadillac
CITY: CADILLAC		**COUNTY:** WEXFORD
CONTACT: Jack McLeod , Director of Operations		**ACTIVITY DATE:** 09/04/2024
STAFF: Lindsey Wells	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: FY24 on-site inspection and records review		
RESOLVED COMPLAINTS:		

Introduction
On 9/4/2024 AQD District staff Lindsey Wells mobilized to Cadillac Fabrication located at 1340 Marty Paul Street in Cadillac (Wexford County, postal zipcode 49601) to conduct an unscheduled, unannounced compliance inspection. The purpose of the on-site inspection was to determine compliance with the Michigan Air Pollution Control rules and permit to install (PTI) 88-18A

Summary
The facility appears to operate in general conformance with 88-18A. Staff will further evaluate the conditions in 88-18A to provide clarification on slight differences in conditions for the original and new coating booth (EUCOATINGBOOTH02).

Facility Information
Cadillac Fabrication is a custom metal fabrication shop for industrial equipment such as specialized semi-trailers, loading ramps, bridges, ladders, platforms, mezzanines, material handling products, structural steel tanks and vessels. Activities at the facility include CNC plasma cutting, welding, abrasive blasting, and spray coating. The facility has 4 dry filter bank dust collectors and 2 dry filter spray coating booths. The dates of dust collector filter changeout are noted in paint marker on each filter bank. The spray coating booths each filter and exhaust on their south ends.

Permits of Record
The facility was first permitted in 2018 (PTI 88-18) in response to a violation notice for operating an unpermitted coatings booth (EUCOATINGBOOTH). The 88-18 evaluation notes that the facility claimed HVLP applicators could not be used due to the high solids content of the coatings and noted that the proposed coatings contained less than 4 lbs VOC per gallon. The 4.4 TPY and 200 gallons per month limit were noted as being lower than the VOC rule requirements in effect at the time. The building height and stack height were noted as 30’ and 32’ respectively. A review of safety data sheets submitted for previous records requests indicates that cumene is present in multiple coatings and thinners. Permit 88-18A was issued on October 5, 2020 for the addition of EUCOATINGBOOTH02.

On-Site Inspection Notes
Upon arrival to site, no visible emissions or odors were observed. Staff were referred to Jack McLeod, the operations manager of the facility. Staff explained the purpose of the visit was a compliance inspection and proceeded on a process walkthrough. Welding and surface coating activities were occurring at the time of inspection.

CNC Plasma Cutters
The 2 plasma cutters on site are equipped with downdraft ventilation tables that vent to a dry filter bank located outside of the building. No excess material was observed on or around the collector.

Welding Bays
The facility is equipped with 3 welding bays. Each welding bay is equipped with local exhaust ventilation systems that are routed to dust collector control. The two smaller bays share a dry filter bank dust collector and the long bay is equipped with a separate dry filter bank dust collector. Overhead cranes are present for production handling in the long bay.

Steel abrasive blast booth
The blast booth is also equipped with a separate dry filter dust bank collector. The facility uses Garnet Speed Blast silica free sand as an abrasive agent. The corrugated connector from the discharge chute to the collector bin was partially disconnected, leaving less than an inch gap. No excess material was observed on or around the collector. The facility will reconnect the discharge chute.

EUCOATINGBOOTH
The booth is equipped with filters and no gaps were noted. It is also equipped with a magnehelic gauge but it is unclear if its operating properly. The permit does not require pressure drop readings but the facility has expressed an interest in

using this parameter to monitor booth performance. EUCOATINGBOOTH has an associated paint kitchen that includes a Becca Cleaner/solvent recycler. The facility indicates this is no longer in use. The lid was closed and instructions were posted. No open containers were noted in the paint kitchen.

EUCOATINGBOOTH02
Booth 2 is equipped with two vertical filter banks, one on each side of the south end of the booth. No filter gaps were noted. The facility indicated that the booth has been operational. The final section of stack has yet to be installed and does not yet extend above the roofline. Two buckets without covers were observed in the coating booth, one was noted as likely containing dirty solvent, the other was being used to soak a spray applicator. Staff discussed the requirement for closed containers when not being accessed by operators. The facility was receptive to the creation of a custom lid for cleaning the spray applicator. The paint kitchen for Booth 2 is accessed from the south interior end of the booth. No open containers were noted. This booth is also equipped with a magnehelic gauge but it is unclear if it is operating properly because it did not respond as expected when the booth was closed and fans activated. The facility may follow up with their vendor given that the booth was just recently installed.
The paint supervisor Mike indicated that filters are changed out on a regular schedule of every 40-60 hours. The paint supervisor's office is located in the center of the production floor and includes safety data sheet (SDS) binders for all materials, as well as technical data sheets for most materials. Mike indicated that some technical data sheets for materials are accessed from the internet. Daily coating usage is tracked using an electronic calendar in excel that indicates the identity of the coating and the number of gallons used. The abbreviation NP is used to indicate days where no painting took place. The facility also maintains monthly purchasing records of coatings.
Some of the coatings used at the facility are 2-part polyurethane coatings that include a pigmented base (Part A) and a hardener/activator (Urethane Activator Part B). The technical data sheet for the coating includes VOC content in lbs per gallon for 'as supplied' and with thinner use (the VOC content represents both components).

Compliance Evaluation PTI 88-18A
EUCOATINGBOOTH and EUCOATINGBOOTH02 are each subject to a 4.4 VOC TPY limit and a 200 gallons per month coating limit. Compliance is demonstrated via monthly use records and VOC mass balance. At the time of the inspection, the facility tracks total coating usage. The facility will track usage by booth in the interim while staff evaluate if this is necessary.

Submitted records indicate total emissions are 1.53 TPY for the evaluation period with a maximum usage of 168 gallons in October 2023 for both booths, demonstrating compliance with each EU condition. Although only EUCOATINGBOOTH02 is subject to a cumene limit of 0.11 TPY, total cumene emissions were reported as 0.001 tons for the evaluation period.

The permit requires waste materials be captured and stored in closed containers, disposal of filters so as to minimize contaminant reintroduction, and handling in a manner that minimizes fugitive emissions. No apparent deviations from this condition were observed during the 9/4/24 inspection.

As previously noted both booths were visibly equipped with filters. At the time of inspection the facility reports to utilize HVLP, airless, and air assisted airless. Only EUCOATINGBOOTH02 requires HVLP technology. The permit engineer's evaluation for EUCOATINGBOOTH noted that conventional applicators could be used due to the high coating solids content because the coating limit assured compliance.

The facility is of record as being approved to use manufacturer's formulation data for component data of coatings.
The permit requires recordkeeping on a monthly basis for coating use in gallons, VOC content of materials, and VOC and cumene (where applicable) emissions calculations. Satisfactory calculations were provided in a timely manner in response to staff request. Coating usage and coating data were reviewed both during the on-site inspection and provided in response to staff request.

District files indicate the stack dimensions conform to the requirements in the PTI.

Other Requirements
The facility is not a fee subject source and is therefore not required to report annual air emissions to the air quality division.

Based on observations at the time of the September 4, 2024 site inspection and review of records provided by facility staff, the facility appears to be operating in general compliance with applicable requirements.

NAME Lindsey Wells DATE 12-2-24 SUPERVISOR Shane Nixon