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

N725644873

FACILITY: UNIVERSAL COATING INC.		**SRN / ID:** N7256
LOCATION: 5204 ENERGY DR., FLINT		**DISTRICT:** Lansing
CITY: FLINT		**COUNTY:** GENESEE
CONTACT: Julie Taylor , Risk Manger - Q.M.R.		**ACTIVITY DATE:** 04/18/2018
STAFF: Robert Byrnes	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: 2018 Scheduled Inspection		
RESOLVED COMPLAINTS:		

On April 18, 2018 I conducted an announced inspection of Universal Coating Inc. I arrived at the facility and met with Julie Taylor and Veronica Lewis who both helped with site visit, records collection, permit review and discussions. Since the last inspection the facility has become a major source of HAP and is now mostly covered by MI-ROP-N7256-2017a. The facility typically operates 3 shifts, 5 days per week with some Saturdays for dip spin and hand spray paint work.

Universal Coating processes include phosphate, color, and adhesive coatings. Some of the processes at the source are used on an "as needed" basis and are always used in production. The last submittal of records was for the second half of 2017 and was received on February 7, 2018.

EU-TUMBLESPRAY There are now 4 Tumble Spray units at the facility. 2 are operated as exempt under Rule 287(c) and have been installed and operated inside of Hand Spray booth 3 (EU-HS3). The other 2 tumble spray units are permitted as EU-TS3 & EU-TS4 and are cement mixers with a hot air feed and an air spray gun set up in the mixer mouth. The pre-heated parts are spray coated as they tumble, then allowed to tumble dry. EU-TS3 & EU-TS4 were installed in August 2008 (originally exempt Rule 287(c)) and are ducted to the RTO for VOC control.

EU-ROLLCOATER It is an automated system for coating metal sleeves of about 2 inches in diameter and up to about 5 inches in length. The roll coater was installed in August 2008 and is directed to the RTO for VOC control.

EU-SANDBLAST There are currently 17 different sand blast stations which range from small hand blast cabinets to the larger Wheelabrators. Approx. five blasting units share common duct work exhausting through two bag house control devices. The bag houses are contained in a separate room connected to the main building. The units exhaust into the room. Several smaller tumbling, blasting, and polishing units vent directly into the main blasting room. Note: Hearing protection should be used in this area as the unloading and loading of parts creates noise. Some of the units were in operation during my inspection. I did not witness any visible emissions and the room containing the units was very clean. See attached facility drawing for the locations and types of blast units in the sand blast room.

EU-BURNOFF The burn-off oven was not operating during my site visit. The cycle is preset so that the primary chamber does not initiate until after the afterburner reaches temperature. The oven prints a temperature map on a circle disk. The oven is only used for removing coatings from tooling used on the applicator lines and occasionally it is used to remove coating from parts. The oven is used approx. for two batches per week. A copy of the temperature chart for the afterburner was reviewed and non-compliance issues are still occurring. The chart was overwritten multiple time as the single chart covered from January 2018 through April 2018. The chart also only went up to 800 degree's Fahrenheit but the afterburner is required to operate above 1400 degree's. There also was no record on site of calibration of the thermocouples. The facility is in violation of EU-BURNOFF special conditions IV.1, IV.2, VI.2 and VI.3. The facility will be given 1 month to submit a response addressing the non-compliance issues and provide a corrective action plan to assure the issues will not re-occur. The facility was also reminded these were also violations in the previous 2015 inspection. Further inaction or continued issues will result in a violation and referral to the enforcement unit for resolution.

EU-DEGREASER A single vapor degreaser unit exists. It is subject to MACT Subpart T. It was not in use during my inspection. Instructions are posted on the unit. MACT reports are sent in twice a year. See file records for MACT Subpart T compliance information. Emission records were reviewed for 2017 and were below the following emission/usage limits.

	October 2017	November 2017	December 2017	Compliance?
SC I.1, 268.8 pounds/month	133.9	121.8	60.9	Yes
SC II.1, 22.2 gallons/month	11.0	10.0	5.0	Yes
40 CFR 63.464, 30.6 pounds/ft^2/month	15.3	13.9	7.0	Yes

EU-POWDERCOAT the powder coat unit is small and designed to be moved about the facility as needed. It was not in use during the inspection. However, Julie Taylor did state the powder coating was conducted in a spray booth, but the fans are turned off during powder coating operations. EU-Powdercoat requires that exhaust gases be released only into the general in-plant environment (SC VIII.1). The company may be sent an additional VN for this and be required to amend their PTI.

FG-PHOSPHATELINES Three phosphate lines are installed and all lines were in operation during the inspection. Note: Hearing protection should be used in this area as the unloading and loading of parts creates noise. FG-PHOSPHATELINES has an emission limit for VOC at 1.0 tpy. Review of the October, November and December 2017 emission rates show 19.5, 18.9 and 19.5 pounds VOC emitted per month respectively. See Semi-Annual ROP reporting for emission rate details.

FGDIPSPIN Total VOC emissions from the dip spin operations for the 12-month period ending in December 2017 was 1.2 tons. The limit is 5.0 tons. VOC emissions reported for December were 245 pounds. The limit is 2000 pounds/month. See Semi-Annual ROP reporting for emission rate details.

FGH1/H2/H3 Three booths are installed. A shared exhaust header feeds all three booths to a common stack. The stack appeared to be of the appropriate height and diameter. Filters were in place. Two of the spray booths have a tumble spray operated inside which exhausts via the booth to atmosphere. VOC records for the tumble sprays are kept under EU-Tumble spray. Total VOC emissions from the hand spray booths for the 12-month period ending in December 2017 were 1.2 tons. The limit is 5.0 tons. VOC emissions reported for December were 245 pounds. The limit is 2000 pounds/month.

FG-RTO

This flexible group covers 8 controlled metal and plastics parts coating lines (including clean up and purge materials). This includes 5 chain on edge lines EU-CE-1 through EU-CE5 (CE1=T3&T4 CE2=T1&T2, CE4=T5&T6 are all double booth lines, CE 3 and 3 are single booth lines), the roll coater and 2 tumble spray units (TS3 and TS4). The capture efficiency and destruction efficiency were tested on January 30, 2017. Results from the testing confirmed a PTE with 100% Capture Efficiency (CE), and 99.4% Destruction Efficiency (DE). The following operational parameters were observed during the site inspection.

Channel Number (refers to an individual coating line)	" wc (PTE must be > .07 " water coumn)	NDO FPM (PTE must be > 200 feet per minute)
1	0.366 " wc	274.92 fpm
2	0.422 " wc	243.95 fpm
3	" wc	395.87 fpm
4	0.419 " wc	358.27 fpm
5	0.483 " wc	357.73 fpm
6	0.519 " wc	273.30 fpm
7	0.447 " wc	298.69 fpm
8*	" wc	0.00 fpm

Line 8 was not in operation during the site visit.

RTO Chamber 1560 degrees Fahrenheit
Inlet temperature 104.9 degrees Fahrenheit
Outlet temperature 216.4 degrees Fahrenheit
Fan 51.85 Hz
And 20" delta P across the RTO

Records were obtained for the RTO chamber temperature, inlet temperature, outlet temperature and pressure

drop across the inlet duct to the RTO for April 16 through April 18, 2018. The RTO temperature was always above 1500 degrees Fahrenheit and the duct pressure was always greater than -.007" H2O. All operating parameters were within acceptable ranges (channel 8 was the roll coater which was not in operation that day). Maintenance records for the RTO were obtained. These records show the pitot tubes for measuring the capture systems > 200 fpm for each line was validated for accuracy every quarter. Pitot tubes are cleaned monthly. RTO maintenance records were also obtained showing typical monthly, quarterly, semi-annual and annually serviced items.

Copies of the maintenance records, records of operating parameters and observed values are attached to the hard copy of this report.

FG-MACT MMMM

Emissions of HAP from metal parts coating were provided during the Semi-Annual report received on February 7, 2018. Review of the Misc. Metal Parts Coating MACT showed the following emission rates:

Coating Category	December 2017 Emissions	Emission Limit	Compliance?
Rubber-to-metal	3.3 lb HAP/gallon solids	37.7 lb HAP/Gallon solids	Yes
General Use	0.1 lb HAP/gallon solids	2.6 lb HAP/gallon solids	Yes
Extreme Performance	1.2 lb HAP/gallon solids	12.4 lb HAP/gallon solids	Yes
High Performance	0.0 lb HAP/gallon solids	27.5 lb HAP/gallon solids	Yes

All emission rates were below their respective limits. 3 deviations were reported in which control credit could not be taken. A copy of the summary page of the MACT MMMM submittal is attached to this report. See orange file folders for the full copy of the Semi-Annual Compliance Report.

FG-MACT PPPP

Emissions of HAP from metal parts coating were provided during the Semi-Annual report received on February 7, 2018. Review of the Misc. Metal Parts Coating MACT showed the following emission rates:

Coating Category	December 2017 Emissions	Emission Limit	Compliance?
General Use	0.09 lb HAP/lb coating solids	0.16 lb HAP/lb coating solids	Yes

All emission rates were below their respective limits. 3 deviations were reported in which control credit could not be taken. A copy of the summary page of the MACT PPPP submittal is attached to this report. See orange file folders for the full copy of the Semi-Annual Compliance Report.

The facility had 6 items in question when I left the facility in which a list was left with the expectation Universal Coating would respond. On May 29, 2018 Veronica Lewis responded via email as shown below with our evaluation of the responses.

1. EU-Burnoff special condition VI.2 Thermocouple Calibration
   Thermocouples were validated against in house calibrated Fluke 51 (UC082) and validated thermocouples. Reading of the primary(860°F) and secondary chambers(1558.4°F) are well within tolerance.

It appears the unit was calibrated however, additional information will be required for the future like, date calibrated, next due date, calibration device certification values and ranges, was the unit in specification, does it meet the specified performance ranges for the thermocouple and were adjustments made to the thermocouple?

2. FG-RTO special condition VI.7(a) Thermocouple Calibration
   Thermocouple Calibration was done during the off line inspection performed by Durr in September 2018. Please see attachment.

It appears the dates are off in this string of e-mails around May 9, 2018. The email chain mentions commissioning of the RTO in September 15, 2018 (a future date? But likely 2016 or 2017.) The e-mail also mentions June 9th we will to T/C calibration. I'm assuming this had not been done but was scheduled for June 9, 2018. Other information obtained during the inspection was a DURR inspection report which did not mention

thermocouple calibration. This inspection was done in off-line mode August 19th and 20th 2017, and in on-line mode on September 6, 2017. Further action is being deferred at this time with the expectation that at the next site visit all proper documentation will be available.

3. EU-Burnoff adding log ensuring right chart is used
   A chart was created to track what is being put in the oven (tooling or a job order) along with the amount of baskets being put in the oven. The time in and the time out are also recorded along with the date. Usage of this new chart will give more explanation to the burn off oven activities.

Although no example of this new record was provided, it should provide documentation that no prohibited materials listed in special condition III.1 & III.2 were placed in the burn off oven.

4. It was confirmed the wheel chart being used on the burn off oven was incorrect the responsible employee has been addressed and ensures to verify correct wheel is used in the future.

This response is acceptable, it is also requested that the wheel chart does not get re-written and is only used for the appropriate time frame (1 week?).

5. Update test plan for FPM on Line 5, with the door closed the opening has area of 1056in the area of the space with the doors open is 3408in. The openings on the sides to allow the chain to pass through have an area of 228in.

Although calculations were not provided, based upon the flow data observed (picture attached from inspection) this would meet the 200 feet per minute requirements. At a future inspection, a request will be made for the documentation showing the dimensional openings and the minimum air flow rates that meet the 200 feet per minute requirements.

6. The distillation unit found in the chemical storage room has a capability of 15 gallons and is not currently installed.

This unit was installed but apparently did not have the electrical connections completed. Any unit with a capacity less than 55 gallons per batch would be exempt from a PTI under Rule 336.1285(2)(u).

I did not witness any visible emissions outside off the plant and I did not detect any paint fume smell around the plant. The facility is in compliance with all requirements of the Title V permit except for a few minor discrepancies listed above. As such, because of the significant improvement in compliance versus the previous inspection and being their first inspection under the Title V permit, no further action will be taken at this time.

NAME [signature] DATE 7/18/18 SUPERVISOR [signature]