

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

N741357126

FACILITY: VENTRA FOWLerville LLC		SRN / ID: N7413
LOCATION: 8887 WEST GRAND RIVER AVENUE, FOWLerville		DISTRICT: Lansing
CITY: FOWLerville		COUNTY: LIVINGSTON
CONTACT: Kaylyn Cox , Environmental Health & Safety Manager		ACTIVITY DATE: 01/13/2021
STAFF: Robert Byrnes	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MAJOR
SUBJECT: FY 2021 Scheduled Inspection.		
RESOLVED COMPLAINTS:		

On January 13<sup>th</sup>, 2021 I conducted an unannounced inspection at the Ventra Fowlerville LLC facility. I arrived at the facility and met with Kaylyn Cox, the Environmental health & Safety Manager for the facility. Tim the Paint Shop Manager for Ventra also present during portions of the inspection, but mainly was around the Capture Efficiency testing also being conducted on the same day. The facility is a major source of VOC and is covered by MI-ROP-N7413-2020. The facility produces (molds) plastic truck/automobile bumper facia's, paints the parts and then assembles the parts as necessary.

### EU-PIM

EU-PIM was identified in PTI 247-04 listing 6 presses with no permit conditions for the EU. There are currently 10 (originally 6 permitted, then 8, and now currently the 10<sup>th</sup> press was installed in 2018) plastic molding machines which make front and rear bumper components for various vehicle models. The molding operations typically run 3 shifts per day, 5 days per week. The last 4 installed mold presses are likely exempt under Rule 286(2)(b). The facility has installed robots on 9 mold press lines to flame treat the parts with a natural gas fired torch. These additions are also likely exempt under Rule 282(2)(b)(i) or under the Rule 286(2)(b) exemption.

Additional plastic molding equipment was also installed under PTI 247-04, such as electrically heated dryers, 4 plastic pellet storage silo's (currently 6, last one recently installed in July 2017) and plastic recycling. Future installations of the plastic handling equipment could also be considered exempt under the following regulations if the records required in Rule 278 are maintained. Electrically heated air dryers for the plastic Resin portion of the molding process. The dryers are used to remove moisture from the molding process to eliminate quality concerns – R286(2)(a). Outdoor plastic resin storage silo's – exempt R286(2)(a). Bulk plastic resins are offloaded from semi-tankers using a vacuum system to transfer the materials. Scraped or ruined plastic bumper components are recycled through a plastic grinder to be ground up for re-pelletizing or paint stripped at a facility off-site – exempt R285(2)(l)(vi)(B).

There are also several bumper assembly lines which punch some holes and attach smaller plastic parts (lights, grills, sensors, brackets, license plate holders) which were likely installed after the main equipment from PTI 247-04- exempt R285(2)(l)(vi)(B). The assembly lines are operating 2 shifts per day, 5 days per week for various products. A future area was being prepared for a future installation of bumper assembly.

It was previously mentioned to Kaylyn that any additional equipment added beyond that of a PTI needed separate documentation for each new process showing the installation date, a

description of the equipment installed, the exemption rule the equipment was installed under and a Rule 278 demonstration.

### **EU-WASHLINE**

The paint system begins with a 5 stage aqueous based washer. The final stage uses reverse osmosis water. After the washer there is a convection dry-off oven with a 16 minute drying cycle at 225 degrees Fahrenheit. Next is a cool down process which lasts approximately 5 minutes with an end temperature target of 80 degrees Fahrenheit before paint application begins. Although EU-WASHLINE is identified in the ROP, there are no permit conditions for this emission unit.

### **FG-COATINGLINE**

The Coating line has been changed since the past inspection with the addition of new robots, applicators, paint lines and paint pot system in the paint kitchen. The Ad Pro line was updated in January 2020, the Basecoat/Clearcoat system was updated in April/May 2020 during the Covid-19 shutdown and the paint kitchen was also updated in April/May 2020. The paint kitchen includes smaller paint lines (from 1" to now 9 mm or .35") which has reduced waste generation by more than 50%. Ventra historically has used 5 totes of purge in 2 weeks while now the purge usage is 5 totes per month. There are now 14 basecoat lines and 2 tinted clearcoat lines.

The start of the paint process begins with the application of an Adhesion Promoter (AP) which is solvent borne. There are 3 bell (historically conventional) robotic applicators within the adhesion promoter booth. After the AP booth there is a convection heated flash which drives off the solvent from the AP coating. EU-APPROCESS is ducted to the thermal oxidizer as required in MI-ROP-N7413-2020.

The basecoat booths spray a solvent borne color coating using all fully electrostatic robot bell applicators (Historically 5 fully electrostatic robot bells and 3 dual head electrostatic robot applicators). The booth was designed for 80 ft/minute down draft and has a water wash particulate overspray control system. Following the basecoat booth is an 8-10 minute ambient flash area. Clear coat booths apply a solvent borne clear coat paint using 6 robotic applicators. All applicators are fully electrostatic bells which the original 5 had been tested by ABB when installed and provided approx. 47% TE. The clear coat booth was also designed for 80 ft/minute down draft and has a water wash particulate overspray control system. There is a 15 minute ambient flash followed by the bake oven. The bake oven has a 10 minute radiant heat section followed by a convection section. The total oven time is approximately 40 minutes with the design criteria being able to achieve a part curing temperature of 250-280 degrees Fahrenheit for 25 minutes.

Ad Pro and basecoat paints are received from DuPont or NBcoatings in 55 gallon drums filled with 45 gallons of paint, 10 gallons of room left for thinner. The clear coat comes in 150 gallons totes or larger due to the higher usages. A new contractor/vendor has been utilized for the paint sludge room. Tim mentioned they have new paint pumps coming soon which will significantly cut down on clean up emissions.

The basecoat and clear coat spray booths are controlled by an RTO. The RTO is brought up to temperature 2 hours prior to production and has a conveyor/sprayers interlock which automatically shuts down if the temperature of the RTO falls below 1400 degrees Fahrenheit. The RTO is a 2 chamber design with a cycle time of 2.5-3 minutes.

An RTO temperature wheel chart were obtained for the weeks of 01/04/21 and is included with this report. Other than a temperature drop over the weekend, the temperature was always above 1480 degrees Fahrenheit. More commonly the RTO was operated between 1480-1600 degrees during all operating periods. The thermocouple appears to have been replaced on 08/06/2019. The replacement date the following year appears to have been “Unable to Complete” as production was running and hand written message on the report states need to reschedule. The heat exchanger media was replaced in the winter of 2015. An RTO bake out was last conducted in June 2015 and a follow up to this question was not asked during this inspection. Previous maintenance manager Norm said the unit had been burning cleaner since switching to solvent borne AdPro during the 2019 inspection. No more white ash and no more bake outs have needed to be conducted. Ventra did add new ceramic media (1” diameter balls, 4” deep) to the top which allows for easy cleaning during maintenance. Copies of the most recent maintenance inspection report for the RTO were obtained from June 23, 2019. Again lack of a recent report implied the RTO maintenance may have not occurred. Further review of obtained inspection records showed work order details for 12/23/2020 which includes

The operating parameters for the RTO on the day of inspection were as follows:

Operating Temperature = 1524 degrees F (previous inspections were 1642, 1547, 1546, 1546)

The thermocouple was replaced on 08/06/2019

Inlet Temperature = Not obtained degrees F (previous inspections were 122, 83, 99, 92)

Outlet Temperature = 297 degrees F (previous inspections were 314, 280, 297)

Pressure Drop 6.0” (previous inspection was 6.0”, 18.5”, 16.5”) ceramics were replaced in 2018

Fan Speed 100%, 118 amps, (same as previous inspection)

The following is a list of special conditions for the FG-COATINGLINE, the requirement and how they comply with each condition:

Special Condition	Requirement	Compliance Evaluation
-------------------	-------------	-----------------------

I.1	176.3 tpy VOC	Summary records for December 2020 showed VOC emissions of 75.92 tons, well below the permit limit. See Attachment A.
I.2	3.7 tpy dibasic ester family	Information on dibasic ester was not obtained during the inspection. The previous inspection reviewed the December 2018 VOC records showed the actual dibasic ester family materials as used had emissions of 0.01 tpy (previously 0.031 tpy), well below the permit limit.
I.3	13.1 tpy Ethylbenzene	Information on Ethylbenzene emissions was not obtained during this inspection. The previous inspection records from December 2018 showed the actual emissions of Ethylbenzene to be 0.46 tpy (previously 0.54 tpy), well below the permit limit.
I.4	1.4 tpy Formaldehyde	Information on the Formaldehyde emissions was not obtained during this inspection. The previous records from December 2018 VOC records showed the actual Formaldehyde emissions to be 0.44 tpy (previously 0.53 tpy), well below the permit limit.
III.1	Reclaim 70 percent by weight of all purge solvents.	No review of the purge reclaim was conducted during this inspection. Given paint line purging occurs in the spray booth with the control device on and operating, it would be easy to assume the 90% capture and 95% destruction easily achieves better than 70% disposal of purge solvents. Previously a review of the 2013 purge manifest records and the amounts purchased was conducted. The facility reclaimed approximately 52.6% of purge solvent based upon purchase/manifest records. Those purge solvents not collected would have occurred in the controlled paint booths with 90% capture and 95% destruction. Therefore the facility would be in compliance with the 70% reclaim/removal/disposal (in this case destruction) requirements.
III.3	Captured waste coatings must be in closed containers	All coating materials were closed in the paint kitchen area.
III.4	Submit a MAP	The facility submitted a Malfunction Abatement Plan (MAP) in May 2015 and as part of the ROP Renewal process in 2020.
III.5		

	<b>Submit a plan to minimize emissions from Start up, Shutdown and malfunctions.</b>	<b>This plan was also included as part of the MAP submitted in May 2015, resubmitted as part of 2020 ROP Renewal.</b>
<b>IV.1</b>	<b>Install and maintain a water wash system.</b>	<b>Copies of Sterling Industrial Services quotes and purchase order for the water wash system was requested like previous inspections. Information was provided to show maintenance on the waterwash system and to demonstrate the waterwash system was installed, maintained and operated in a satisfactory manner.</b>
<b>IV.2</b>	<b>Non-electrostatic applicators or better</b>	<b>Booths used all bell robotic applicators. Ventra Fowlerville does not use any HVLP applicators, therefore test caps are not applicable. The facility uses spray equipment with comparable technology and transfer efficiency.</b>
<b>IV.3</b>	<b>1400 Degrees Fahrenheit temperature and monitoring requirement.</b>	<b>The facility uses a wheel chart recorder. Charts were obtained for the week of 01/04/2021. The weekly wheel chart showed the oxidizer to be above 1480-1600 degree's except during the weekends or when there was no production. See Attachment wheel chart attached to a hard copy of this report.</b>
<b>V.1</b>	<b>Method 24</b>	<b>Company uses vendor formulation data and MSDS to determine VOC contents</b>
<b>V.2</b>	<b>Conduct performance testing every 5 years unless an acceptable demonstration shows the previous results are still valid.</b>	<b>The facility conducted stack testing to prove capture and destruction efficiency on August 15<sup>th</sup>, 2019. The DE test passed while the capture efficiency failed. CE was retested again on March 17, 2020 and on January 13, 2021 both with failing results. As a result of this a VN will be sent.</b>
<b>VI.1</b>	<b>Complete all calculations by 15<sup>th</sup> day of the month</b>	<b>VOC records were up to date.</b>
<b>VI.2</b>	<b>Monitor the RTO combustion chamber temperature.</b>	<b>The facility uses a wheel chart recorder. Charts were obtained for the week of 01/04/2021. The chart is included as an attachment to this report.</b>

<b>VI.3</b>	<b>Maintain MSDS and/or formulation data.</b>	<b>No review of the MSDS was conducted during this site inspection. However, the facility has always had all MSDS available for review if needed.</b>
<b>VI.4</b>	<b>Maintain VOC records.</b>	<b>Copies of the VOC records ending for the 12-month period ending December 2020 and are included as an attachment to this report.</b>
<b>VI.5</b>	<b>Maintain Toxic Air Contaminant (TAC) records.</b>	<b>Copies of the TAC records were previously reviewed for the month of December 2018 and were not reviewed as part of this inspection.</b>
<b>VI.6</b>	<b>Monitor and record a parameter to demonstrate capture.</b>	<b>Previously the facility was asked for records of the RTO fan speed which was previously recorded on a daily basis as found in the Robot Technician Start Up Checklist. Kaylyn previously was not aware of any record regarding the RTO fan speed and the ROP does not currently obligate Ventra Fowlerville to recording it. Operating parameters were observed during the day of the site inspection and it appeared the VFD was not in use and the fan was simply operating at maximum speed consistently.</b>
<b>VII-1 through VII.3</b>	<b>Standard ROP reporting</b>	<b>Yes, annual and semi-annual submittals with deviation reports have been received.</b>
<b>VIII</b>	<b>Stack restrictions</b>	<b>Stack parameters for FG-COATINGLINE were confirmed in the MAERS submittal.</b>
<b>IX.1</b>	<b>Comply with Subpart PPPP</b>	<b>Summary records for December 2020 showed HAP emissions of 0.14 lbs HAP/l b solids, which is below the MACT limit of 0.16 lbs HAP/lb solids. See Attachment to this report.</b>

### VOC recordkeeping

For VOC emissions from the painting line, Ventra Fowlerville uses their EMTRACK data system for recording and calculating VOC and HAP emission data. A monthly log from the paint kitchen is sent back to the office for data entry into EMTRACK. In the paint kitchen, actual usages, including solvent additions are kept by each shift each day, and then are compared to supplier (Dupont and NB Coatings) invoices to make sure the paint inventory is balanced with usage. The facility can spray over 100 different colors.

Copies of the VOC and HAP summaries for December 2020 were obtained and are included as an attachment to this report. The records obtained were reviewed and they are below their respective VOC emission limits as found in the ROP.

### Plastic Parts MACT

The facility complies with the emission rate without add-on control as the facility does not have capture monitoring in place. Review of the emission records for 2020 show the 12-month ending emission rate of 0.14 lbs HAP/lbs solids which is below the limit of 0.16 lbs HAP/lb solids. Ventra is also submitting quarterly HAP emission records per the latest consent order.

### Boilers/Hot Water Heaters – MACT DDDDD

The facility also has 2 natural gas fired water heaters which are exempt under Rule 282(b)(i). Both units are new and are 2.0 MMBTU/hr or less. All units are used to provide process water to the washer and building heat. The units previously had their MACT DDDDD tune ups completed on October 1, 2015. The tune ups should have been completed again within 5 years. A phone call to Kaylyn Cox was placed on March 4, 2021 requesting the latest copy of the tune up. The tune ups were not completed in a timely manner so this was added to the violation letter.

### Diesel Generator – MACT ZZZZ

The facility has a Spectrum 300 Detroit Diesel emergency generator that was installed when the facility began operation in March 2006. The rated capacity of the generator is 300 HP. During the previous inspection in 2018, a copy of the PM work order details was obtained which showed a total of 427.6 hours and 0.1 hours for maintenance check. The previous inspections noted 427.2 and 323.5 hours total. No records on the hours operated and the maintenance record was obtained during this inspection.

### Stacks

No review of the stack heights and diameters were done at the facility during this inspection. The 2019 MAERS report confirmed the stacks are the same dimensions as in the facility's ROP.

### 2019 MAERS Submittal

A review of the 2019 MAERS submittal was done and no errors or discrepancies were found. As of the writing of this report, the 2020 MAERS submittal has not been received yet but is not due until March 15, 2021.

### Conclusion:

The facility is in compliance with all applicable rules and regulations except for the Capture Efficiency test violations and missing the Boiler MACT tune ups as noted above. A violation notice will be sent. Follow up the Violation Notice will be within 21 days of being sent. The site

inspection was announced prior to arrival and was conducted as part of the capture efficiency testing conducted on the same day. Kaylyn was very helpful in getting the information needed in a timely fashion.

NAME Anthony Byrnes

DATE 3/20/21

SUPERVISOR R.M.