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

N741332193

FACILITY: VENTRA FOWLERVILLE LLC		**SRN / ID:** N7413
LOCATION: 8887 WEST GRAND RIVER AVENUE, FOWLERVILLE		**DISTRICT:** Lansing
CITY: FOWLERVILLE		**COUNTY:** LIVINGSTON
CONTACT: Jordan Flowers , Environmental Health & Safety		**ACTIVITY DATE:** 11/05/2015
STAFF: Robert Byrnes	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: FY 2015 scheduled inspection.		
RESOLVED COMPLAINTS:		

On Thursday November 5, 2015 I performed an unannounced inspection at the Ventra Fowlerville LLC facility. I arrived at the facility and asked to meet with Jordan Flowers the Environmental health & Safety Manager for the facility. Cathy Cupal the Human Resources Director for Ventra also joined us. The facility is a major source of VOC and is covered by MI-ROP-N7413-2014a.

I began by asking for a copy of the VOC and HAP records for October 2015, copies of the RTO temperature chart, and copies of information which shows the water wash system was working. We then proceeded to walk through the entire facility. Both Cathy and Jordan were very helpful in getting the records information that was requested and showing me through the facility.

EU-PIM
There are currently 8 (originally 6) plastic molding machines which make front and rear bumper components for various vehicle models such as the Ford F-150 truck, Ford Explorer, Ford Expedition, Chrysler minivan and Dodge Ram pickups. The molding operations typically run 3 shifts per day, 5 days per week. There are 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 – exempt R286(a). There are 4 outdoor plastic resin storage silo's – exempt R286(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(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) - exempt R285(l)(vi)(B). The assembly lines are operating 3 shifts per day, 5 days per week for the F-150, Taurus, Lincoln MKS, expedition and navigator product line. Although EU-PIM is identified in the ROP, there are no permit conditions for this emission unit.

The facility is also in the process of installing a 9th molding machine by extending the overhead crane. The molding machine had not been delivered yet. I mentioned the installation of an additional machine is likely exempt under Rule 286(b) and the company should document the installation date, the likely emissions expected so the process is not excluded from exemption under Rule 278, and keep the information of file.

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 start of the paint process begins with the application of an Adhesion Promoter (AP) which can be either solvent borne or water borne. There are 3 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 has recently switched to solvent borne coatings and the process emissions have been ducted to the thermal oxidizer as required in PTI 247-04B. This PTI was also recently rolled into the ROP.

The basecoat booths spray a solvent borne color coating using 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 due to the higher usages.

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. A records review of the RTO temperature strip charts was performed during my inspection for November 2nd, 2015 through November 8, 2015. Other than a temperature drop over the weekend, the temperature was always above 1400 degrees Fahrenheit. More commonly the RTO was operated around 1525 plus degrees during all operating periods. The thermocouples were recently recalibrated on 5/19/15. The heat exchanger media was replaced in the winter of 2015. An RTO bake out was conducted in June 2015.

The operating parameters for the RTO on the day of inspection were as follows:
Operating Temperature = 1546 degrees Fahrenheit (previous inspection was 1546)
The thermocouple was calibrated on 5-19-2015
Inlet Temperature = 99 degrees Fahrenheit (previous inspection was 92)
Outlet Temperature = 280 degrees Fahrenheit (previous inspection was 297)
Pressure Drop 16.5"
%CV = 60%
Fan Speed 100%, 2880 RPM, 112 amps, 640 Bus VDC

A Picture of the pressure drop gauge is included as Attachment "B" of this report.

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 October 2015 showed VOC emissions of 86.85 tons, well below the permit limit. See Attachment A.
I.2	3.7 tpy dibasic ester family	October 2015 VOC records showed the actual dibasic ester family materials as used had emissions of 0.12 tpy, well below the permit limit. See Attachment "A" for details.
I.3	13.1 tpy Ethylbenzene	October 2015 VOC records showed the actual emissions of Ethylbenzene to be 0.81 tpy, well below the permit limit. See Attachment "A" for details.
I.4	1.4 tpy Formaldehyde	October 2015 VOC records showed the actual Formaldehyde emissions to be 0.48 tpy, well below the permit limit. See Attachment "A" for details.
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.
III.5	Submit a plan to minimize emissions from Start up, Shutdown and malfunctions.	This plan was also included as part of the MAP submitted in May 2015.
IV.1	Install and maintain a water wash system.	Copies of CQ Service Reports for the water wash system was obtain for October 26th through November 4th, 2015. These reports show that every other day various functions of the water wash system was operating properly and documented whether maintenance was needed. Based upon these records it appears the water wash system is maintained and operated in a proper fashion. These record are included in the e-mail received from Jordan Flowers on November 11, 2015. This e-mail is included in this report as Attachment "C". Waste paint solids from the system are collected and bagged to be sent off as waste.
IV.2	Non-electrostatic applicators or better	Booths used 3 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.
IV.3	1400 Degree's Fahrenheit temperature and monitoring requirement.	A review of many of the wheel charts showed the oxidizer to be well above the 1400 degree Fahrenheit requirement. A copy of the November 2, 2015 wheel chart showed the oxidizer to be above 1500 degree's except during the weekend where there was no production. See Attachment "D"
V.1	Method 24	Company uses vendor formulation data and MSDS to determine VOC contents
V.2	Conduct performance testing every 5 years unless an acceptable demonstration shows the previous results are still valid.	The facility recently conducted stack testing to prove capture and destruction efficiency on November 6th, 2014 when the adhesion promoter line was connected to the RTO.
VI.1	Complete all calculations by 15th day of the month	VOC records were up to date.
VI.2	Monitor the RTO combustion chamber temperature.	The facility uses a wheel chart recorder. An example is included as Attachment "D" of this report.
VI.3	Maintain MSDS and/or formulation data.	No review of the MSDS was conducted during this site inspection. However, the facility has always had all MSDS available for review if needed.
VI.4	Maintain VOC records.	Copies of the VOC records ending for the month of October 2015 are included as attachment "A" of this report.
VI.5	Maintain Toxic Air Contaminant (TAC) records.	Copies of the TAC records ending for the month of October 2015 are included as attachment "A" of this report.
VI.6	Monitor and record a parameter to demonstrate capture.	The facility records the RTO fan speed on a daily basis as found in the Robot Technician Start Up Checklist. Copies of this checklist are included as Attachment "C"
VII-1 through VII.3	Standard ROP reporting	Yes, annual and semi-annual submittals with deviation reports have been received.
VIII	Stack restrictions	Stack parameters for FG-COATINGLINE were confirmed in the 2014 MAERS submittal.
IX.1	Comply with Subpart PPPP	Summary records for October 2015 showed HAP emissions of .02 lbs HAP/lb solids, well below the MACT limit of 0.16 lbs HAP/lb soilds. See Attachment A.

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 October 2015 were obtained and are included as attachment "A" with this report. The records obtained were reviewed and they are below their respective VOC emission limits as found in the ROP.

Plastic Parts MACT
Initial notification – March 31, 2009 due, received April 29, 2009.
Because the facility complies with the plastic parts MACT subpart PPPP using the emission rate without add on controls option, they are not required to have a work practice plan 63.4493(a). Review of the HAP emissions records was conducted for the Month of October 2015. The facility is well below their emission limit as mentioned in the table above.

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 recently had the MACT DDDDD tune ups completed on October 1, 2015. Copies of the tune up results are included as Attachment "E".

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. A copy of the hours meter reading was obtained. The records showed 323.5 hours for the months ending August, September and October 2015. Although the record does not go back as far as required (issuance date of the last ROP renewal November 26, 2014) it is very unlikely they exceeded the 100 hours per year given the unit has only operated 323.5 hours in the last 9 years. Next inspection the concern about the hours record will need to be addressed. The facility recently conducted the required oil change and maintenance on May 15, 2015. A copy of the hours operated and the maintenance record is included as Attachment "F" to this report.

Stacks
No review of the stack heights and diameters were done at the facility during this inspection. The 2014 MAERS report confirmed the stacks are the same dimensions as in the facility's ROP.

2014 MAERS Submittal
A review of the 2014 MAERS submittal was done and no errors or discrepancies were found

Conclusion:
The facility is in compliance with all applicable rules and regulations at this time. The site inspection was un-announced, Cathy and Jordan were very helpful in getting the information needed in a timely fashion. No items remain to follow up with at this time.

NAME _____ DATE 11/17/15 SUPERVISOR _____