

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

B602725648

FACILITY: Inteva Products Adrian Operations		SRN / ID: B6027
LOCATION: 1450 E. BEECHER ST, ADRIAN		DISTRICT: Jackson
CITY: ADRIAN		COUNTY: LENAWEE
CONTACT: Michael Cannart , Environmental Engineer		ACTIVITY DATE: 05/06/2014
STAFF: Sersena White	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Announced targeted inspection accompanied by Permit Engineers reviewing a permit revision requesting the option to bypass the RTO on a as-needed basis.		
RESOLVED COMPLAINTS:		

SRN: B6027

Company Name: Inteva Products, LLC – Adrian Operations

Company Address: 1450 E. Beecher Street, Adrian, MI 49221

Company Contact: Michael Cannart- Environmental, Health & Safety Engineer

Company Contact E-mail address: mcannaert@intevaproducts.comIntroduction

Inteva Products, LLC – Adrian Operations primarily produces Instrument Panels for General Motors pickup trucks (approximately 95% of output). The main production operations at the facility are plastic injection molding and instrument panel assembly. The facility operates two automated spray paint lines (EU-CKIP#3 and EU-P5) that include full aqueous parts washer lines, robotic spray paint booths and dryer ovens. A third paint booth (EU-CKIP#2) is used for more small scale painting or maintenance painting. Plastic pellets are delivered via rail car and tractor trailer and transferred to the facility's storage tanks via two trestle piping runs into the plant. The pellets are sent through a drying process before utilization in the facility's injection molding machines. There is several emission units that are exempt from the requirement to obtain an air use permit that are used in the manufacture of the instrument panels.

In January of this year Inteva experienced a malfunction of the RTO due to extreme weather conditions. A Rule 912 response was submitted and the plant continued to operate without using the RTO due to use of water based coatings, which kept them under the permitted Volatile Organic Compound (VOC) emission limits. As a result of this event, Inteva decided to submit a permit modification that would allow them to operate the RTO on an as needed basis. When not using the RTO, a bypass stack would exhaust the emissions. The company submitted a permit application to request this option.

They were able to demonstrate compliance with the toxic emissions and dispersion modeling requirements during the bypass of the RTO. This provided supporting ground work for the modification.

Since the permit for this modification is currently being evaluated, and Inteva is scheduled for a compliance inspection, permit staff were invited to tour the facility while the inspection was conducted. The Permit Engineers were Julie Brunner and Daniel Schwanik of the General Manufacturing/Chemical Process Unit. Actually seeing the emissions units and control devices would offer the permit engineers an opportunity to gain a better understanding of the process and the potential impact on ambient air quality.

Purpose

The inspection was scheduled in advance to ensure all necessary personnel would be available. On May 6, 2014, we arrived at Inteva at approximately 8:45 a.m. We were required to view a Safety Video before entering the facility. The required personal protection equipment is safety glasses, steel toed boots/shoes and hearing protection in certain areas. My purpose was to evaluate compliance with MI-ROP-B6027-2012 and provide an opportunity for the permit engineers to observe the manufacturing

processes as it related to the permit to install application 51-14 that would allow Inteva the option of using the RTO seasonally or on a as needed basis.

Mike Cannaert and Matthew Kwiatkowski a consultant with ERM met us in the lobby so they could escort us to a conference room prior to entering the plant. Mike explained Inteva's process in general terms as a manufacturer of instrument panels (I.P.'s) for the auto industry. He talked about some of the different technologies used in pre-treatment of the I.P.'s surface prior to finishing. During this discussion he mentioned that Inteva wants to determine if a permit application will be needed for a two tone I.P. coating process where a mask is used to create the two tone appearance. Based upon our discussion and looking at the exemption booklet, it was determined that the mask washing part of the process could meet an exemption, but the coating process would need to be permitted as the VOC's would have to meet specific regulatory requirements.

Production of I.P.'s

EUPLASTBLENDSYS (R286(b)) is a plastic/fiberglass material handling and blending process that consist of material unloading from the railcars, two silos, silo to blender material transfer, and the material blending system controlled by a fabric filter that exhaust inside the plant. The pellets are fed to the automated foam in place reaction injection molding machine(s), EU-RIM (R286(e)) where one I.P. is molded at a time. After the mold is complete the part is manually placed on a rack to wait for the next stage in the process. There are four different technologies of I.P. surface treatments that allow use of different methods to finish the product.

Several of the processes after the instrument panel is molded are exempt from requiring a permit to install. A brief description of the process including the exemption, that were observed during the tour are as follows:

EU-Laser (North, South, East & West) – (R285(l)(vi)(B))

Laser scoring is machining of plastic to create a cut partially through the vinyl skin or molded IP substrate. The laser cuts the plastic along the score line. This cut (score) is required to direct the air bag deployment. During deployment of the air bag the vinyl or plastic will break along the cut to prevent having shrapnel being ejected toward the driver or passenger. The depth of the cut must be maintained to a precise degree for safety purposes.

EU-Laser Drill – (R285(l)(iv)(B))

Laser Pitching (hole drilling) is a machining of plastic to create small diameter holes in the instrument panel substrate. During later manufacturing processes at the press laminate bonding, the skin can be pulled to the substrate using a vacuum through the holes before heating and gluing process.

EU-Flame (East & West) - (R285(l)(iv)(B))

The flame treatment is a robotic low temperature flame machining surface treatment to prepare the surface of the substrate so that it has good adhesion during the press laminate process.

EU-Thermofoaming – (R286(d)) Forms vinyl sheets into a skin using heat to soften plastic and a mold to form sheet.

EU-Plasma (Ozone) – (R285(l)(vi)(B))

The Plasma treatment is a machining surface treatment to prepare the surface of the substrate so that it has good adhesion during the press laminate process. This works similar to the flame treatment. The plasma treatment takes place by electrical field (appears to be lightening hitting the surface of the part prior to coating) that is produced.

EU-R&D (R283) – Research and Development into new formulations, new part configurations or material.

EU-HndHldAerosol (R285(hh)& R287(b)) – Miscellaneous maintenance painting.

EU-PlasWeld (R285(i)) – Plastic welding operations.

EU-InjMold (R286(b)) – Injection molding and associated equipment – injection, compression, and transfer molding equipment and associated plastic resin handling, storage and drying equipment.

EU-CKIP#3 and EU-P5 (Hard I.P. – Spray painting applied over I.P. substrate)

The configuration is described as parts entering booth 1, booth 2, then a flash off area, then booth 3 and booth 4, then a drying oven. The oven is considered an air dry oven because Inteva has it set at 188°F. The ceiling temperature for an air dry oven is 194°F. The drying oven has an alarm to prevent exceeding the permitted operational limit. Booths 1 and 2 are controlled by an RTO with bypass capability. Booths 3 and 4 are not controlled for VOC and exhaust to a separate stack. The parts are either coated in booths 1 and 2 or booths 3 and 4. All of the booths have two robotic HVLP spray applicators in each booth with water wash for overspray control. Records are kept of the amount of coating and thinner used in gallons by the operator daily. EU-CKIP#3 was not operating at time of the inspection, but EU-P5 was.

EUCKIP-#2 referred to as Booth 25 by Inteva, is used for service parts, research and development and product testing. The coating is sprayed manually with dry filter overspray control only. This booth was not operating at the time of the inspection.

Touch-up painting uses very small jars of coating where toothpick size applicators are used apply coating to parts where coating is missing.

During the tour, Mike showed us that hand written records are kept where applicable. The records are collected and entered into a spreadsheet for tracking.

RTO data is continuously downloaded to a storage device. At the time of the inspection, the combustion chamber temperature was 1600°F.

After touring the production of the I.P.'s, Mike showed us the proposed location of the new Two Tone booth. There is existing floor space and a stack exhaust to accommodate the process.

Conclusion

Inteva is complying with the requirements of MI-ROP-B6027-2012 based upon my observations and their record keeping methods. This is supported by the 2013 MAERS audit.

We left at approximately 1:55 p.m.

NAME *Susan M. White*

DATE *6-26-2014*

SUPERVISOR *[Signature]*