

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

B585442770

FACILITY: Romeo RIM, Inc.		SRN / ID: B5854
LOCATION: 74000 Van Dyke Avenue, ROMEO		DISTRICT: Southeast Michigan
CITY: ROMEO		COUNTY: MACOMB
CONTACT: Wade Spurlin , Environmental Coordinator		ACTIVITY DATE: 12/21/2017
STAFF: Sebastian Kallumkal	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MAJOR
SUBJECT: Onsite Inspection		
RESOLVED COMPLAINTS:		

On Thursday, December 21, 2017, at about 9:50 AM, Michigan Department of Environmental Quality-Air Quality Division (MDEQ-AQD) staff, Sebastian Kallumkal, Joseph Forth, and Adam Bogнар conducted an annual inspection at Romeo RIM, Inc. located at 74000 Van Dyke Avenue, Romeo, Michigan. The purpose of the inspection was to determine the facility's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); Michigan Department of Environmental Quality-Air Quality Division (MDEQ-AQD) Administrative Rules; and the Renewable Operating Permit (ROP) No.: MI-ROP-B5854-2015a.

The facility produces reaction injection molded (RIM) plastic parts for trucks and fleet type vehicles (bumpers), and some John Deere products. Various sized "clamps" are used to mold these plastic parts. The primary parts produced are engine covers, bumpers and storage pallets. Some parts are coated by in-mold painting (IMP) while some other parts are coated after being molded and using spray guns in paint booths. Plastics processed are polyurethane and dicyclopentadiene (DCPD). When DCPD is used, no mold release agent or IMP is used. When polyurethane is processed, mold release agents are used and IMP may be used. Facility's processes are subject to Rule 632 for coating of plastic parts.

The facility has two plants. In Plant No. 1, there are currently 8 stand-alone clamps, one High Gloss In-Mold Paint Long Fiber Injection (HGIMP-LFI) process a.k.a. Shuttle Clamp Process (with the ability to process two shuttling molds), the Rotary Carrier, which has the capacity to have seven clamps in motion and two paint spray booths (Line 1 and Line 2). All the sunshade/moon roof manufacturing and assembly processes have been dismantled except for on clamp kept for warranty work. The shuttle clamp is installed in a new building connected to the Plant 1. The Plant 2 has one paint spray booth and 4 RIM booths.

Facility's coating operations are also subject to 40 CFR 63, Subpart PPPP-NESHAP for Surface Coating of Plastic Parts and Products.

At the facility we met Mr. Wade Spurlin, Environmental & Quality Coordinator. We introduced ourselves, provided credentials and stated the purpose of the inspection.

During the pre-inspection meeting, we discussed the facility's operations, the new Rotary Carrier System installation, odor complaints referred to AQD by MDEQ Water Division staff while they were onsite, etc. He informed us that the Rotary Carrier System started operation in March 2017. Regarding the odor, they had conducted a study using dagger tubes, and the air flow test indicated that air flow within the clamp enclosure and proximate area is effective. They continue to study the air currents in that area to learn how the odor goes out of the plant. AQD has not received any complaint from the public for few years. He informed me that they wanted to replace the two old CINCI clamps with new ones and start using DCPD in RIM45. He plans to submit the permit modifications for these changes by the summer 2018.

He explained that the facility uses regularly about 20 coatings. They are keeping a spreadsheet which identifies the coatings, the dates EPA Method 24 analyses for VOC content

of the coatings conducted, dates next analyses due, etc. The current spreadsheet shows the previous analyses some of which are more than 5 years old. The facility is required to analyze coatings once in every five years. In order to make the tracking of acetone usage easier in Plant 1, the coating lines in Plant 1, LFIs, the Rotary clamps, and the shuttle clamps have dedicated separate acetone drums. The material handler logs the usage and physically measures using sticks on monthly basis. The same method is used for Plant 2 emission units (3 emission groups and 3 acetone drums. The IPA and mineral spirits are also tracked similarly.

The electronic Work Center has all the product information (by serial numbers) for each coating mix. The coatings and catalysts are automatically pumped based on the mix ratio input into the system. The VOC and HAP calculated based on the information input into the system based on the serial number.

INSPECTION:

After the pre-inspection meeting, he accompanied us for an inspection of the facility. Initially we inspected paint booths 1 & 2. Both booths were used at the time of the inspection. The booth filters appeared to be good and in place. Mr. Spurlin told me that the first stage filters are replaced on a daily basis and the second stage filters are replaced on a weekly basis. The coating samples were not collected for analysis at the time of the inspection.

Next, we inspected the RIMs in the Plant 1. Some of the RIMs were used at the time of the inspection.

Summary of filter conditions during inspection:

Emission Unit ID	Emission Unit Description	Filter Conditions	Comments
EU-PLT2-LINE1	Plant 2, Paint Line 1	Volvo Paint. Good & In-Place	Not operating.
EU-PLT2-RIM45	Plant 2- RIM 45 (11x14)	Good & in-Place	Not Operating for two weeks
EU-PLT1-IMP2	Plant 1 - Clamp No.2 (Cinci-1)	Good & in-Place	Operating
EU-PLT1-IMP5	Plant 1 - Clamp No. 5 (Ford 90)	Good & in-Place	Operating. Always use water borne coating
EU-PLT1-IMP12	Plant 1 - Clamp No. 12 (LFI-3)	Good & in-Place	Not Operating
EU-PLT1-IMP24	Plant 1 - Clamp No. 24 (LFI-5)	Good & in-Place	Not Operating
EU-PLT1-IMP26	Plant 1 - Clamp No. 26 (LFI-1)	Good & in-Place	Operating and painting
EU-PLT1-IMP28	Plant 1 - Clamp No. 28 (LFI-2)	Good & in-Place	Not Operating
EU-PLT1-IMP29	Plant 1 - Clamp No. 29 (LFI-4)	Good & in-Place	Not Operating
EU-PLT1-IMP50	Plant 1 - Clamp No. 50 (Cinci-2)	Good & in-Place	Operating, but not painting
EU-PLT1-LINE1	Plant 1, Paint Line 1- Includes spray booth #1	Good & in-Place Stage 1 replaced daily	Operating (painting)

Emission Unit ID	Emission Unit Description	Filter Conditions	Comments
EU-PLT1-LINE2	Plant 1, Paint Line 2- Includes spray booth #2	Good & in-Place Stage 1 replaced daily	Operating (painting)
EU-PLT2-RIM42	Plant 2-RIM 42 (5x7)	Good & in-Place VOC Monitor = 9.5 ppm 11.2 ppm Max Pressure Diff = 0.6"WC	Operating. Using DCPD. Carbon adsorber running.
EU-PLT2-RIM43	Plant 2- RIM 43 (11x6)	Good & in-Place (See VOC monitoring data above)	Operating. Using DCPD. Carbon adsorber running.
EU-PLT2-RIM44	Plant 2- RIM 44 (10x12)	Good & in-Place	Not operating
EUCLAMPBOOTH1	Paint/catalyst mixture and barrier coat will be applied to a mold inside this booth. .	Filters conditions not verified. Couldn't see while operating.	Operating
EUCLAMPBOOTH2	Paint/catalyst mixture and barrier coat will be applied to a mold inside this booth. .	Filters conditions not verified. Couldn't see while operating.	No Operating at the time of inspection due to operational problems
EUSPACOATING	Manually applied (sprayed) coating to spas (molded parts).	Stain applied manually (wiping)	Molded parts from LFI-3, LFI-4 & LFI-5
EUROTARYPAINT	Mold release is applied to the mold. High efficiency dry fabric filters will be used to control particulate from overspray.	Did not observe the filters	Operating Diff. Pressure = 0.28 "WC
EUROTARYBC	Barrier coat will be applied to a mold inside this booth.	NA	Operating Diff. Pressure = 0.38 "WC
EUROTARYLFI1	Two part polyurethane mixture with embedded glass fibers is injected into the mold (reaction injection molding).	NA	Not operating
EUROTARYLFI2	Two part polyurethane mixture with embedded glass fibers is injected into the mold (reaction injection molding).	NA	Operating Diff. Pressure = 0.21 "WC
FGCOLDCLEANERS	Two cold cleaners/parts washers	NA	Cover closed

We also inspected the staining area. The stain is a water-based coating which is applied to plastic parts after in-mold painting.

Next, I inspected the shuttle clamp process. This process is also called "double shuttle" process which means that two parts can be manufactured during each cycle. The process has one top clamp (fixed in the middle room) and two bottom clamps located inside each of the two spray booths. Initially mold release is manually sprayed to the mold. Next, paint mixed with catalyst is applied to the interior of the mold using robotic HVLP applicators. The mold is moved to the top clamp where the two-part resin mixture mixed with long fibers is injected into the mold. The injection of the two-part resin and fiber is called a "shot". After this, mold is opened, and moved back to the booth where the part is removed, undergo finishing operations such as sanding, trimming, drilling, etc. One of the clamps was in operation at the time of inspection while the other clamp was out of service for an incidental maintenance. He informed that the North prep area dust collector is vented into the general in plant area.

We also inspected the newly installed Rotary carrier in-mold paint long fiber technology reaction injection molding process (Rotary Carrier System). The process has 7 carriers: 4 were being used at the time of the inspection. Each carrier goes through mold release application (EUROTARYPAINT), barrier coat application (EUROTARYBC) and reaction injection molding (EUROTARYLF11 or EUROTARYLF12, polyurethane mixture with embedded glass fiber application). Each carrier takes about 20-45 minutes for one cycle for the applications and curing. The pressure differential for each booth is monitored to assess condition of the filters and filter changing.

Next, we inspected Plant 2. The RIM 42 (Clamp 5x7) was operated during the inspection. DCPD was not used on that day. RIM 43 (clamp 11x6), was operated and DCPD was being used. I observed that the exhaust from these two units was vented through Carbon Adsorption system (CA No.2). RIM 44 (10 x12) and RIM45 (11x14) was not operating during the inspection.

We inspected carbon adsorption unit CA No. 2 which controls the exhausts from RIM 42 and 43. Wade told me that CA No. 2 is being used at the time because DCPD is used. The vent switches showed that the exhaust is vented to the adsorption unit. They monitor the VOC readings every day they run DCPD. Derek Childers, Plant 2 Manger, calibrated the PID and measured the VOC emissions in CA No.2. CA No. 3 which controls emissions from RIM 44 was located in an elevated platform, so we could not inspect it. Wade told me that VOC emissions are monitored using the portable analyzer as required. He indicated that they want to install a PID permanently for CA No. 3 and have a display monitor installed lower level, so they could view the readings from the floor.

We also inspected EU-PLT2-LINE1. Only Volvo parts are coated in this booth. The booth was not being used at the time of the inspection. Wade told me that the filters in both stages are changed on a weekly basis.

All records are kept electronically. Facility keeps check lists for filter conditions for each clamp. The electronic records were received the next week in a flash drive. Discussions of the requirements are given below under each emission group and flexible group.

Compliance Evaluation:

Renewable Operating Permit No. MI-ROP-B5854-2015a

The ROP contains following emission units and flexible groups:

EU-PLT2-LINE1, EU-PLT2-RIM45, FG-PLT1-RIM-IMP, FG-PLT1-SCL1 & 2,
FG-RIMPROCESS, FG-SHUTTLECLAMP, FGROTARY, FG-RULE287(c),

FG-MACT-SUBPART_PPPP, FG-COLDCLEANERS**EU-PLT2-LINE1:**

Plant No. 2 Spray Coating Line 1 consisting of one paint spray booth, one flash-off area, one bake oven, and parts-wiping (done prior to coating). This line was using acetone for purge and had post-mold paint storage and mixing room. The exhaust filters control particulate matter emissions from the booth.

This booth is used more frequently than before. The booth was not being used at the time of the inspection. The filters were in place and in good condition.

Volatile Organic Compounds (VOC) emission rates:

The facility keeps monthly records of type of the coatings, coating usage, VOC content in pounds per gallon of coating (minus water), as applied, hours of operation, VOC emissions per hour, month and annual, etc. The 12-month records from December 2016 to November 2017, show that the hourly VOC emission rates were below 6.0 lb/hr (permit limit) and were in compliance. The highest hourly emission rate was 2.08 lb which occurred in January 2017.

The total annual VOC emission rate was 0.18 tons per year (tpy) which in compliance with 18.7 TPY (permit limit).

The records show that the VOC content of the coating was in compliance with the ROP limit 3.9 lb VOC/gal of coating-water. The facility only coats same type of parts (Volvo parts) in this booth and uses the same coatings (T01610001XXA-Polane P, Conductive Primer, Black, E67BC1704, Volvo and T01620001XXX-Solvent Blend-Compliance Thinner, Reducer). The VOC content of the mix is set to 3.51 pounds per gallons (minus water).

Acetone: The records show that the average hourly acetone emissions from the line purging process were 0.11 lb/hr and are below the permit limit of 0.6 lb/hr during December 2016 through November 2017. Highest Acetone lb/hr = 0.23 lb/hr in December 2016. Wade indicated that they collect about 90% of the purge acetone.

The records show that the 12-month rolling time period acetone emissions from Line Purging Process during December 2016 through November 2017 were 0.07 tpy which is in compliance with the permit limit (1.7 tpy).

Testing/Sampling: See discussion below (following FGROTARY).

Monitoring & Recordkeeping:

The exhaust filters are installed in the booth properly. The facility is using HVLP or equivalent spray guns to apply coatings. The Facility is keeping adequate monthly records for each coating sprayed, the total hours of operation, the parts-wipe process, the monthly VOC emission calculations, acetone used and collected, and acetone emission rates. He informed me that the facility is keeping a current listing of the chemical composition of each coating used. Facility is currently using the information from Material Safety Data Sheet and other manufacturer's information to calculate VOC emissions.

The facility appears to be replacing the exhaust filters according to the schedule specified in Appendix 3.1. The booth filters were in good condition and in place during my inspection. The records regarding monitoring of the filter conditions as specified in Appendix 4 was provided.

During the inspection, I observed drums of solvent and wipe-rage waste kept at the facility. They were all covered.

EU-PLT2-RIM45

This emission unit is a 600-ton (11x14) Pacific Reaction Injection Molding (RIM) press which processes polyurethane-containing materials. When polyurethane materials are processed, mold release agents are used and in-mold painting (IMP) may also be used. The equipment includes vent hood enclosure with two banks of particulate filters (in series) for exhaust gases. HVLP applicators are used for the application of the in-mold painting. Acetone is used for purge and cleanup activities. At the time of my inspection, RIM 45 was not in operation. DCPD is not permitted to be used in this RIM. Facility wants to start using DCPD, so a permit modification will be submitted. The facility provided emissions and usage records for December 2016 through November 2017.

The combined VOC and acetone emissions are limited to 32.4 tpy calculated based on 12-month rolling time period as determined at the end of each calendar month. The submitted records show that VOC and acetone emissions are 2.73 tons as of November 2017.

The acetone emissions from purge and cleanup process) are limited to 2.4 tpy calculated based on 12-month rolling time period as determined at the end of each calendar month. The submitted records show that acetone emissions from the purge and cleanup processes are 0.11 TPY as of November 2017.

The VOC content of the in-mold paint is limited to 5.1 pound/gallon (minus water), as applied, on an instantaneous basis. The records show that the VOC content of the coatings, as applied, is less than 5.1 lb/gallon (minus water).

Mr. Spurlin informed me that they are not using DCPD in the RIM 45 process. They are collecting the waste materials and spent filters and disposing these properly. I observed that VOC and HAP containing materials, including coatings, reducers, mold release agents, solvents and thinners are collected and stored in closed containers.

I observed that the exhaust filters in the RIM 45 is properly placed and not excessively dirty. Facility is using HVLP equivalent applicators for the coating. They are using manufacturers' data sheet and analysis for calculating VOC content of the coatings.

Facility is keeping a listing of the chemical composition of the chemicals used in RIM 45. Facility is keeping records of gallons of VOC containing materials, VOC content, and aggregate monthly and annual VOC emissions.

They are using acetone in the purge/cleanup in the process. The stack dimensions were not verified.

This process is subject to Miscellaneous Plastic Parts Coating MACT (40 CFR 63, Subpart PPPP). This emission unit is subject to emission standards for new sources.

FG-PLT1-RIM-IMP:

This flexible group includes the Plant 1, Reaction Injection Molding processes with mold release and In-Mold Painting (Clamp No. 2, 5, 6, 12, 24, 26, 28, 29 and 50) with seven paint and mold release mix rooms and a storage room. Clamp #6 aka Amesbury (EU-PLT1-IMP6) has been dismantled.

Few of the clamps (Cinci-1, Ford 90, LFI-1, Cinci-2) were used at the time of inspection. I observed that the clamps are equipped with booth exhaust filters. They were not excessively dirty and were not out of place.

Volatile Organic Compounds:

The emission rate is limited to 42.25 lb/hr and 69.06 TPY based on a 12-month rolling time period determined at the end of each calendar month. From the submitted records (December 2016 through November 2017), the highest hourly emission rate (lb/hr) was 8.33 (February 2017) and annual emissions were 20.47 tons. The facility is in compliance with these limits. The records show that the VOC contents of the coatings (lb VOC/gal coating-water) are in compliance with Rule 632(20), Table 66 limits.

Testing/Sampling: See discussion below (following FGROTARY).

Monitoring & Recordkeeping:

Exhaust filters were installed in the RIM booths. Facility is keeping adequate records of material usage, chemical composition and VOC calculations. Facility is keeping number of hours of operation on a monthly basis and is calculating average hourly VOC emission rate based on the total monthly hours of operation. The facility is calculating VOC emission rates on a monthly and yearly basis.

The facility appears to be replacing the exhaust filters according to the schedule specified in Appendix 3.1. The RIM exhaust filters were in good condition and in place during my inspection. The records regarding monitoring of the filter conditions as specified in Appendix 4 was provided.

FG-PLT1-SCL1 & 2:

Plant No. 1: Post-Applied Paint. Plastic parts coating operations currently consists of two coating lines (Lines 1 and 2), 1 bake curing oven and parts wiping prior to coating. These booths have two stage exhaust filters for particulate control. The flexible group also consists of post mold paint storage and mixing room.

Volatile Organic Compounds (VOC) and Acetone (from paints):

The total combined VOC and Acetone emission rate from this flexible group is limited to 31.7 tons based on a 12-month rolling time period as determined at the end of each calendar month. The records show that the annual combined VOC and Acetone emissions from coating process were 11.24 tons as of November 2017.

The records show that VOC content of the coatings is below the limit specified in Rule 632, Table 66 (Base, Red/black/other, high bake) based on submitted data from December 2016 through November 2017.

VOC and Acetone (Clean up & Purge only):

The total combined VOC and Acetone emission rate from the clean up and purge solvent usage generated from this flexible group is limited to 8.3 tons per year based on a 12-month rolling time period as determined at the end of each calendar month. The records show the calculated

annual combined VOC and Acetone emissions from cleanup and purge were 0.56 TPY as of November 2017. The records show that the recovery rate is about 90% of the purge solvents.

Testing/Sampling: See discussion below (following FGROTARY).

Monitoring & Recordkeeping:

Facility is keeping adequate records of coating identification, gallons of coating materials used, monthly & 12-month rolling VOC and Acetone emission rates for all coating lines combined, hours of operation, and VOC emission limit calculations pursuant to Rule 632. The facility uses mostly solvent based coatings. But they calculate with and without water VOC calculations, when applicable.

The facility is keeping adequate records for the purge and clean up solvents. The facility is maintaining a list of material safety data sheets for the materials used in coating. Facility has not analyzed the VOC content of the materials. The information is provided to the facility by the supplier.

The facility is required to keep records of the condition of the exhaust filters in the booths on a daily basis using an approved format in Appendix 4. Facility is keeping electronic records for each regarding the condition, stage 1 and Stage 2 filter replacements, etc. Electronic records were provided.

They informed us that the facility is replacing the booth exhaust filters as outlined in Appendix 3.1. Facility had developed and implemented the periodic monitoring program for each carbon adsorption system. The attached records show filter change for paint booth.

During the inspection, I observed drums of solvent and wipe-rage waste kept at the facility. They were all covered.

FG-RIMPROCESS:

Located in Plant 2-three reaction injection molding (RIM) presses 100 ton (clamp 5x7, RIM42), 120 ton (clamp 11x6, RIM43), and 300 tons (Clamp 10x12, RIM44) which process dicyclopentadiene (DCPD) and polyurethane containing materials. When DCPD containing materials are processed, no mold release agent and in-mold coating (IMP) are used. When polyurethane containing materials are processed, mold release agents are used, and in-mold coatings may also be used. When DCPD containing materials are processed, the VOC emissions are controlled by carbon adsorption systems which include two banks of particulate filters (in series) followed by two banks of carbon filter banks (in series). Electrostatic applicators are used for the application of the in-mold coatings. Acetone and/or VOC containing solvents are used for purge and cleanup (EU-CLEANUP). No acetone/VOC purge and cleanup activities take place within the three press enclosures. Carbon adsorber No.2 (CA No.2) controls exhaust from EU-PLT2-RIM42 and EU-PLT2-RIM43. Carbon adsorber No.3 (CA No.3) controls exhaust from EU-PLT2-RIM44.

During the inspection, the RIM 42 and RIM 43 were in operation, and DCPD was used in RIM43. So, the exhaust was vented to CA No. 2. Derek Childers tested the VOC emissions after the control. The differential pressure readings at that time was 0.6 "WC. The CA No. 3 was raised from the ground and was not easily accessible for inspection. The CA system No. 2 and CA No.3 are equipped with pressure drop measuring gauges. Mr. Spurlin told me that they perform VOC measurement using the portable analyzer every time they run DCPD and measured earlier.

The records show that the DCPD usage is less than 1770 lb/hr (the highest usage was 96.04 in November 2017. I observed that the exhaust filters installed and maintained properly.

Volatile Organic Compounds (VOC)

The VOC emissions from each RIM process EU-PLT2-RIM42 and EU-PLT2-RIM 43 are limited to 15 TPY based upon a 12-month rolling period as determined at the end of each calendar month. VOC emission from RIM 42 and RIM 43 were 1.40 TPY and 1.41 TPY respectively as of November 2017. VOC emissions from RIM 44 were 0.71 TPY as of November 2017 which is in compliance with the limit of 20 TPY.

The VOC content of the coating is limited to 4.80 lb/gal (minus water), as applied, in RIM 42, RIM 43, and RIM 44. The records show the facility was in compliance with this limit.

The combined VOC emissions from FG-RIMPROCESS including purge and cleanup solvent were 6.24 tpy, as of November 2017, which is in compliance with the VOC limit of 37.3 TPY based on a 12-month rolling time period as determined at the end of each calendar month.

VOC/Acetone emissions from EU-CLEANUP were 0.25 TPY as of November 2017, which is in compliance with the limit of 7.0 tpy based on 12-month rolling time period as determined at the end of each calendar month.

Process and Operational Restrictions:

The Two carbon systems for RIM42, RIM 43 and RIM44 are installed. The CA systems are equipped with pressure differential monitors. The RIM clamps are properly equipped with exhaust filters.

Testing/Sampling: See discussion below (following FGROTARY).

Monitoring & Recordkeeping:

Facility is keeping a current listing of chemicals used as required by the ROP. Facility is keeping records for the chemical identification, VOC content, usage, mixing ratio, VOC emissions calculations on a monthly basis, for the coating, cleanup and purge solvents.

The facility is calculating and keeping records of the DCPD containing materials processed in the RIMs, on an hourly basis and number of monthly hours when DCPD is used in FG-RIMPROCESS. The records show that the facility is keeping DCPD usage for the whole month as the usage for the last day of the month.

The facility is keeping all records of required data and completing all required calculations for the RIM process as required in the ROP.

Mr. Spurlin informed me that the facility is monitoring each carbon adsorption system as outlined in Appendix 5B. The facility has not experienced any carbon breakthrough in either of their carbon systems during the last two years.

The facility is monitoring and keeping pressure drop data and other parameters for CA No. 2 system and for CA No. 3 system. The Carbon filters in both booths were replaced in February 28 and August 9, 2017.

The RIM Booth exhaust filters appears to be replaced as outlined in Appendix 3.2. The filters appeared to be in good condition and in place. The facility is keeping records of the condition of the RIM booth exhaust filters on a daily basis as outlined in Appendix 4.

FG-SHUTTLECLAMP

The operations started on October 13, 2011. This flexible group includes Reaction Injection Molding and In-Mold paint operations associated with the shuttle clamp process. The included emission units are EUMOLDRELEASE, EUCLAMPBOOTH1, EUCLAMPBOOTH2, EURESIN, EUPAINTKITCHEN, EUFINISHING, EUPARTSWIPE, and EULINECLEANING. The High Gloss In-Mold Paint Long Fiber Injection Process (HGIMP LFI process) is a reaction injection molding (RIM) process similar to other RIM processes at the facility; however, in this process long glass fibers are injected into the molds with resin in order to add strength to the plastic. This process makes coated plastic parts for agricultural or transportation equipment. Wade explained that they collect and reclaim acetone from this process in an 18 gallon still. This process is exempt from permit to install requirements pursuant to R336.1285(2)(u).

Condition I.1 limits the VOC emission rates to 40 TPY based on a 12-month rolling time period as determined at the end of each calendar month. The submitted records show that the VOC emissions were 10.19 TPY as of November 2017.

Condition II.1 limits the instantaneous VOC content of the coating, as applied, to 4.5 lb/gal (minus water). The records show that the Actual VOC less exempt solvents is 4.11 lb/gal.

Condition II.2 limits the VOC from Barrier Coat to 1,111 lb/day and VOC from LFI Resin to 2933 lb/day. The records show that the facility is in compliance with these material usage limits (eg.: Highest usage: April 11, 2017, Barrier Coat = 688 pounds/day; December 7, 2016 LFI = 1988 pounds/day)

Condition III.1- During inspection I observed that all bay doors were closed.

Condition III.2 & 5-The facility collects and stores all waste materials and wiping clothes in closed containers.

Condition III.3-Mr. Spurlin told me that they are disposing the spent exhaust filters properly.

Condition III.4-The paint booths are kept closed during operation minimizing the fugitive emissions. The coating drums and other solvent containers were kept closed.

Condition IV.1 & 2- Mr. Spurlin informed me that the booths are equipped with exhaust filters and facility is using automatic or equivalent HVLP applicators. I observed that the filters are in good condition and in place.

Section V. Testing/Sampling

Condition V.1- Facility is using US EPA Method 24 data provided by the supplier. (See discussion below following FGROTARY).

Condition V.2- Facility performed USEPA Method 24 on the LFI resin and Barrier Coat separately. AQD received the test results on January 18, 2012.

Section VI-Monitoring/Recordkeeping

Condition VI.1- Facility performs all the required calculations in acceptable format and appears to complete the calculations within the specified time.

Condition VI.2- Facility is keeping a current listing from the manufacturer of the chemical composition of each material.

Condition VI-3 – The facility is keeping records, on a monthly basis, of gallons of each material used, VOC content (minus water and with water), VOC mass emission calculations (monthly and annually).

Condition VI-4-Permittee keeps records of Barrier Coat and LFI Resin used on a daily basis and on a monthly basis.

Condition VIII-1 & 2 – The stack heights were not verified, but appear to be in compliance with the permit requirements.

Condition IX- This process is subject to Miscellaneous Plastic Parts Coating MACT (40 CFR 63, Subpart PPPP). This emission unit is subject to emission standards for new sources.

FGROTARY

Rotary carrier in-mold paint long fiber technology reaction injection molding process includes EUROPAINTKITCHEN, EUROFINISHING, EUROPARTSWIPE, EUROLINECLEANING, EUROARYPAINT, EUROARYBC, EUROARYLFI1, and EUROARYLFI2. This process was started operating in March 2017. Particulate emissions from EUROARYPAINT are controlled by high efficiency dry fabric filters. Other booths also equipped with filters, but are not exhausted to the ambient air. All booths are also equipped with differential pressure monitors to decide when the filters need to be changed.

Condition I.1 limits the VOC emission rates to 80 TPY based on a 12-month rolling time period as determined at the end of each calendar month. The submitted records show that the VOC emissions were 1.13 TPY as of November 2017.

Condition I.2 limits the 2,4-Petanedione emission rates to 42.3 lb/day based on a calendar day. The submitted records show that the emissions range from 0.03 pounds to 2.34 pounds per day as of November 2017.

Condition II.1 limits the instantaneous VOC content of the coating, as applied, to 4.2 lb/gal (minus water). The records show that the actual VOC (less exempt solvents) exceeded this limit during several days during March – November 2017. This is a deviation of this permit condition.

Condition III.1-4: Wade explained that the facility collects and stores all waste materials in closed containers, and all the VOC containing materials, wipe rags and spent filters are handled in compliance with the requirements. The coating drums and other solvent containers were kept closed.

Condition IV.1 & 2- Mr. Spurlin informed me that the booths are equipped with exhaust filters and each booth is using robotic HVLP applicators.

Section V-Testing/Sampling: Condition V.1- See discussion below..

Section VI-Monitoring/Recordkeeping

Condition VI.1- Facility performs all the required calculations in acceptable format and appears to complete the calculations within the specified time.

Condition VI.2- Facility is keeping a current listing from the manufacturer of the chemical composition of each material.

Condition VI-3 – The facility is keeping records, on a monthly basis, of gallons of each material used, VOC content (minus water and with water), VOC mass emission calculations (monthly and annually).

Condition VI-4 – The facility keeps records of daily emissions of 2,4-pentanedione. The submitted records do not show gallons of coatings, with 2,4-pentanedione used or reclaimed, and the content of this material in coatings. This is a deviation of these requirements.

Condition VII-1 & 2 – The stack heights were not verified, but appear to be in compliance with the permit requirements.

Condition VII.3- Wade informed me that the exhaust gases from EUROTARYBC, EUROTARYLFI1, EUROTARYLFI2, and EUROTFINISHING are not discharged to the ambient air at any time.

Condition IX- This process is subject to Miscellaneous Plastic Parts Coating MACT (40 CFR 63, Subpart PPPP). This emission unit is subject to emission standards for new sources.

EU-PLT2-LINE1, EU-PLT2-RIM45, FG-PLT1-RIM-IMP, FG-PLT1-SCL1 & 2, FG-RIMPROCESS, FG-SHUTTLECLAMP, FGROTARY

Testing/Recordkeeping: Facility is required to conduct random testing of non-water borne coating, as applied, for VOC content, solids content, and density, using federal Reference Test Method 24 or EPA approved method, on a yearly basis with all coatings tested within a five-year period. Facility's coating supplier is conducting random testing of non-water borne (solvent) coatings, as applied, for the VOC content, solid and density. Facility is allowed to use the supplier's analytical results to show compliance with testing/sampling requirements.

During the inspection, we discussed this requirement and reminded him of my previous request to keep a list of all coatings, Method 24 test date, etc. He provided me this list along with other records. Later, during a discussion about his list, he told me that for the last two years (2016 and 2017), they were unable to test the required number coatings because the supplier was not able to collect the sample from the facility. I informed him that this is a deviation of the requirement. He told me that they don't use the same coatings all the time. He stated that they will test about 11 samples by the end of February 2018 and another 7 samples by the end of 2018. I suggested to him to send AQD the analytical results when received. He agreed to comply with my suggestion. To avoid confusion about which coatings to analyze which year, they plan to analyze all coatings every year. I inquired about whether the supplier could perform and sent the Method 24 analysis results along with each shipment. He is going to look into that option. He provided me results of three coatings on Tuesday, January 29, 2018.

FG-RULE287(c)

This flexible group includes EUSPACOATING and EUSUNSHADES. Facility has dismantled EUSUNSHADES. The staining process (EUSPACOATING) which was done in Plant 1 Line 6 has been moved to a stand-alone self-containing booth near the LFI (3, 4, & 5) units. The staining is performed on coated rough looking plastic parts which are used as spa liners. The air inside the booth is recirculated. The records show that the facility used less than 20 gallons of stain per month during January – November 2017.

FG-MACT-SUBPART_PPPP: Facility's coating operations are subject to 40 CFR 63, Subpart PPPP-National Emission Standards for Surface Coating for Plastic Parts and Products. This NESHAP was promulgated on April 19, 2004. The compliance date was April 19, 2007. The compliance period is 12 months from May 1, 2007 (since the promulgation date was not on the

first of the month). FG-MACT-SUBPART_PPPP includes requirements for both new and existing sources.

The HAP emission limits for existing and new sources-General Use coating are the same (0.16 lb per lb of coating solids based on a 12-month rolling time period as determined at the end of each calendar month).

The facility provided emission calculations (lb HAP/lb coating solids) for July 2016 through June 2017. The calculations show that each coating line is in compliance with the emission limit. The Plant 1 Booth has the highest emissions (0.13 lb HAP/lb Coating Solids) based on a 12-month rolling time period.

FG-COLDCLEANERS:

This flexible group includes two cold cleaners: EU-PLT1PAINTWASH located in Plant 1 and EU-PLT2MAINTWASH located in Plant 2. Both cold cleaners use acetone as the cleaning solution. The spent solvent is hauled off site as manifested waste. We inspected the EU-PLT1PAINTWASH and the cover was kept closed at the time of the inspection.

Two USB drives containing usage and monitoring records and emissions calculations are attached to the report. Hard copies summary of emissions and filter monitoring are attached for review.

Conclusion: Based on the inspection and records review, the facility is not in compliance with the following requirements. A Violation Notice seeking compliance with these requirements would be send to the facility.

EU-PLT2-LINE1, EU-PLT2-RIM45, FG-PLT1-RIM-IMP, FG-PLT1-SCL1 & 2,
FG-RIMPROCESS, FG-SHUTTLECLAMP, FGROTARY
Condition V.1-Testing/Sampling.

FGROTARY

Condition II.1-VOC content of the coatings

Condition VI.4- Records of coatings containing 2,4-Pentanedione.

NAME

Substantiy Kallumb

DATE

2/13/18

SUPERVISOR

Joye BL

