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Maula
MonroeDEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N735340658

FACILITY: Yanfeng Global Automotive - Frenchtown Plant #1		SRN / ID: N7353
LOCATION: 2200 REVAR D., MONROE		DISTRICT: Jackson
CITY: MONROE		COUNTY: MONROE
CONTACT: Frank Keller, EH&S Manager		ACTIVITY DATE: 07/11/2017
STAFF: Diane Kavanaugh-Vetort	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: SM OPT-OUT Source. Conducted complete compliance inspection PCE/FCE. Consists of two plants co-located Frenchtown 1 (FT 1) and Frenchtown 2 (FT 2).		
RESOLVED COMPLAINTS:		

Yanfeng Global Frenchtown Plant 1 and Plant 2Frank Keller, EHS Manager, (O) 734-289-5816, (C) 313-730-1814 frank.keller@yfai.com

On July 11, 2017, Michigan Department of Environmental Quality (MDEQ), Air Quality Division (AQD) conducted a complete scheduled compliance inspection of the Yanfeng Global Automotive Interiors (YG) Frenchtown 1 (FT1) located at 2200 Revard Drive, and Frenchtown 2 (FT2) located at 1833 Frenchtown Center Drive, Monroe, MI. The inspection was announced a short time prior in order to assure the appropriate plant personnel would be available. The purpose of the inspection is to determine YG's compliance status with the applicable federal and state air pollution control regulations, specifically Michigan Act 451, Part 55, Air Pollution Control and the administrative rules. This facility has an existing Opt-Out Air Use Permit to Install (PTI) No. 110-04C issued on April 10, 2013. The PTI contains hazardous air pollutant (HAP) emission limits making YG an Area Source for HAPs. [There is a plastic parts surface coating Major Source National Emission Standards for HAP, Subpart P for which they are not subject due to Area Source status]. YG recently submitted a permit revision application and following this inspection PTI No. 110-04D was issued by verbal approval on August 1, 2017. Permit is for a proposed expansion, adding three more adhesive lines (2 FT1, 1 FT2) and one paint coating processes (FT2). YG submitted 2016 MAERS timely and AQD requested changes to add some EU reporting. A Total VOC 15 tons for year reported.

YG is an interior automotive panel fabricator (plastic automotive parts). YG's current permit PTI No. 110-04C included an emission limit increase from 30 tons (110-04B) to 51 tons per year (110-04C). The previous PTI 110-04B had incorporated the Part 55 Rule 632 (15) exemption limiting the coating line (facility) to 30 tons per year because YG's adhesive coating was unable to comply with the Table 66 emission limitation of 5.0 pounds of volatile organic compound (VOC) per gallon (lb/gal) of coating as applied.

The YG original adhesive was clear to blue-green in color. The adhesive coating was reformulated by YG and is now considered to be a "black coating" under the current permit and applicable requirement (Rule 702(d) and Rule 632, Table 66 (3)). It is allowed a 1.15 multiplier to the Table limit which means the limit is then 5.75 lb/gal. Permits required YG to submit testing to verify the coating as meeting the definition "black coating" pursuant to Rule 336.1102(c). YG conducted and submitted this Rule 102(c) demonstration.

YG PTI 110-04C permitted coating content limit is 5.8 lb VOC /gal as applied (minus water and exempt solvent).

EUADHESIVE covers one spray adhesive line, consisting of an automotive interior plastic parts coating line with a dry filter spray booth with Robotic HVLP spray applicator, an electric curing oven (air-dried), and adhesive preparation and storage area. FGFACILITY covers all process equipment source-wide including any other permits (none at this time), grandfathered equipment (none identified) and exempt equipment (YG has numerous exempt equipment discussed in this report).

PERMIT LIMITS: Volatile Organic Compounds (VOC) EUADHESIVE

- 51 tons per year (tpy), 12 month rolling time period as determined at the end of each calendar month.
- 5.8 lb/gal minus water (and exempt solvents) as applied content of black adhesive
- Carbon Black Concentration in the black adhesive: Greater than or equal to 0.25% by weight, as applied

PERMIT LIMITS: HAPs FGFACILITY

- Less than 9.0 tpy, 12 month rolling time period..., each individual HAP
- Less than 22.5 tpy, 12 month rolling time period..., aggregate HAPs

YG is required to maintain monthly material usage and emission calculation records for all the above. Method 24 testing is a condition of the permit and it also allows the Company to use manufacturer's formulation data alternatively upon approval of the AQD District Supervisor. YG has been approved to use formulation information.

PRE-INSPECTION CONFERENCE

An initial conference was held with Frank upon my arrival. He introduced me to Kirk Peterman, EHS Coordinator. Kirk is new @ 3 months. There was an employee injury soon after my arrival and both Frank and Kirk left to respond to this initially. About 10:30 AM Frank returned and we commenced the inspection. We discussed the existing permit and applicable requirements. I presented an overview of what the inspection needed to cover and the general record keeping that would be requested. We discussed how their current production and recordkeeping was going. Frank explained their spreadsheet and manual record keeping process.

He provided the following general facility information: Operate 7 days/week, regular shifts are M-F 3 shifts. Weekends are limited operation. Employ about 900 people but per Frank it fluctuates because they are a job shop and depends on the particular automotive customer & products at the time.

The most significant events since the last inspection were 1) the installation of another Emergency Generator for Frenchtown 2 plant. It is another Diesel, different manufacturer, is a Caterpillar. 2) Mercury accidental release/malfunction of a Thermolator containing a mercury switch on a Vacuum forming press. YG took immediate appropriate action it appears and cleaned/removed contamination. AQD and other agencies were notified and detail information and report is in file. 3) Submittal of the new PTI application for additional lines.

Frank said they have 5 vacuum forming presses in FT1 and none in FT2. Each has at least one Thermolator to regulate cooling of the press. He has been researching replacement of these with non-mercury containing units. To date he has not had luck due to issue of equipment manufacturer warranty he said.

FACILITY INSPECTION

Frank accompanied me, during the entire physical plant inspection. During the inspection we discussed that YG receives solvent-based polychloroprene Adhesive coating in batches from one supplier, SunStar Engineering Americas, Inc. Material Safety Data Sheets were included as part of the new permit application in-house. They were also previously obtained during the 2013 compliance inspection. Adhesive is a two part coating because it is necessary to add the Carbon Black slurry component themselves on site. They receive coating in pre-made "kits" consisting of one 55 gallon drum of adhesive and one can of Carbon Black slurry. YG has to add the slurry can to the 55 gallon drum and mix on a drum roller prior to using. Per Frank they need to use (spray) the material within 72 hours of mixing or it will harden.

During the inspection I observed the EUADHESIVE booth was not operating. Frank and I were told by a passing employee that the entire production area was on layoff for the next 3 weeks. Frank and I checked the record log book at the booth and 7/7/17 (last Friday) was the last day of data entry. The adhesive is applied by Robotic spray gun. It appeared that the filters were installed and looked to be used but in good condition.

Next to the booth is the air-dried Oven. I observed YG has Temperatures posted for two products they run, GMX 352 and E2LB. Target temperatures respectively are: 130 degrees F and 170 degrees F. These would be compliant as air-dried = less than 194 degrees F (90 degrees Celsius).

In the associated coating kitchen, I observed the two scales, and two 55 gallon drums. These are automatically fed to the Robotic spray gun in the booth. On the shelf, one container of Carbon Black label read 5.2 lbs/gallon weight. During the prior 2013 inspection the then EHS Manager explained that the Company carefully weighs everything and that is how they are monitoring coating usage. If the start weight doesn't match to what is indicated by the "kit" the entire drum is scrapped.

I observed that the Penguin adhesive drum label read: Penguin Cement 321LH Lot#. It listed Heptane, Cyclohexane, and Methanol. All drums include a Batch ID and Lot # and this is recorded by YG.

During the inspection I observed the table-top coating area behind the main booth and near the air-dried Oven. This is part of the same process area and therefore it is also on shut down for 3 weeks apparently. Employees use hand held small plastic bottles of the same black adhesive coating to adhere - by "hand folding over" the trim over the part edges. They apply a thin bead of adhesive to secure the vinyl covering to the part. The parts are then put into a press machine.

Frank said they are tracking this usage; coating comes from the same container as that being sprayed on the line. I verified with Frank that YG needs to remember to account for all usage and emissions from this activity, including clean-up solvents and purge solvents used on EUADHESIVE. Frank said they use Ethyl Acetate as clean-up -Ethyl Acetate is also a listed ingredient in the adhesive Safety Data Sheet.

We observed several of the smaller hand-held squeeze type plastic bottles estimated to hold about 12 ounces sitting on a ledge/table in the coating kitchen room.

YG PTI contains the condition requiring Method 24 analysis to confirm coating VOC content (lb/gal) being used. YG was allowed to utilize manufacturer's data in their current permit to calculate emissions. In 2013 AQD did collect coating samples

and split these with YG (at the time JCIM). The lab results indicated Toluene was present. Toluene is a HAP and had not been identified by YG in their permit application or records. They added it to their record keeping following this result.

RECORDKEEPING:

My review of the YG VOC/HAP Usage and emissions records for month June 2017 determined the following: VOC emission 1,795.30 lbs (0.90 tons) and HAPs 115.75 lbs (0.06 ton). The spreadsheets contain the monthly and 12 month rolling totals and these were also provided to AQD following the inspection and have been reviewed. The FT1 VOC for the 12 month period ending July 2017 are 12.43 tons. The total HAPs emissions during the same 12 month period are 0.81 tons.

Daily tracking of adhesive used (lbs) by shift, by drum weight start /end of shift. YG indicate a 1st and 2nd drum used over a shift, 1, 2, or 3. YG record keeping is determined to be acceptable at this time. It is noted the current permit application proposes an expansion of coating processes and therefore YG will be required to revise all recordkeeping to include the changes in equipment, limits and emissions.

MISCELLANEOUS:

YG had a Mercury accidental release event on May 12, 2017, that occurred from a malfunction/spark event of a Thermolator on one press. The incident was reported timely to AQD and all appropriate parties at the time. All related correspondence is in the plant file.

Frank informed me that YG's waste hauler is Veolia and they also take the spent paint booth filters. YG waste category is a Class 3, with flammable liquids, solid waste, and two hazardous wastes. Frank said that Tim Sonnenberg, Waste Management & Radiological Protection Division did inspect the facility in the past. I verified with Tim, he inspected only 2200 Revard location April 2014 (email attached). He will likely inspect in future due to expansion. I observed waste solvent is stored in drums and all liquid wastes are stored in what appeared to be a properly designed area. Ethyl acetate and Cyclohexane are the primary solvents used.

During the plant walk through inspection we observed the majority of the automotive plastic part manufacturing equipment to be operating. It appears that all the equipment at the facility, other than EUADHESIVE, has been identified as qualifying for exemption from the Rule 201 permit requirement. However, I reminded Frank that if HAPs are used and emitted in the facility they are required to be accounted for under FG FACILITY toward the HAP Opt-Out emission limits.

EXEMPT EQUIPMENT (Primarily Rule 286 Plastic processing equipment)

During the inspection I observed at least 20 hydraulic driven horizontal plastic injection presses. Approximately eight of these are electric. They utilize multiple types of plastic. Exemption Rule cited is Rule 286(b).

I observed the Polyolefin – Hot Melt roll adhesive application process that was referenced in the PTI application and qualifies for exemption Rule 287(i).

During the inspection I observed 4 vinyl vacuum thermoformers with ambient exhaust stacks, most if not all were operating during the inspection. I observed one of these had an associated laser cutting booth with ambient exhaust. Frank said the vinyl is TPO plastic with foam backing. I asked about the exhaust hoods and stacks. He said the exhaust fan is operating but there are minimal emissions. The purpose is more employee safety in the case of a fire.

During the inspection I observed the two Rule 285(g) exempt Emergency Diesel Generators on site. One is located back behind the Plant 1 Building, between this plant and Plant 2. The other one is behind FT2. Both are enclosed within a locked fence.

I requested that Frank obtain the manufactured date, purchase date and install date and the Horsepower of the newest unit. I explained the federal Area Source MACT standard for Reciprocating Internal Combustion Engines (RICE MACT) most likely will apply in some way. Their Unit could also be subject to the New Source Performance Standards (NSPS Subpart IIII). The State has delegation of authority for the NSPS. He introduced me to Barry Robinson, Facilities / Buildings and Infrastructure, and he will provide this information to Frank as soon as possible.

YG has installed two CI-ICE emergency generators. Records for the prior existing CI-ICE were obtained following the 2013 inspection. This first one was manufactured November 2012, installed June 2013, it is 760 HP with 14.0 liter per cylinder displacement. Therefore it is subject to NSPS IIII and is required to have Manufacturer's emissions certification or conduct performance testing. (Baldor Unit, Serial No. P1303180004)

The newer installed CI-ICE was manufactured January 2006, and installed since my previous inspection September 26, 2013. AQD ran both EPA queries and based on the CI-ICE information under the RICE NESHAP it is a New or Reconstructed ICE, >500 HP (610 HP) at an Area Source, emergency, installed after June 2006. This refers the Unit to the NSPS IIII CI-ICE and that query indicates it is not subject; this appears to be due to the manufactured date of January 2006. (Caterpillar Unit, Serial No. 7WG04033, Model 3456).

PLANT 2 (Frenchtown 2) INSPECTION

Frank and I then walked over to the Plant #2 building directly behind Plant #1. We walked through a large portion of the building, essentially a large one room warehouse type structure. I observed some of the Plastic Injection Molding Machines. They also have a hot melt glue operation in this plant which uses a Henkel type product. Frank said this is all they operate at this plant and they determined all equipment is exempt from permit requirement.

CLOSING CONFERENCE

Frank and I then returned to the front offices and I obtained some of the requested record keeping information. Frank agreed to forward additional required records to me within the next week. I obtained a one page copy of the Adhesive Log (May 2017 dates) and E2LB Glue Spray Cell Process Monitoring Record (dates 1-12 through 5-12). The second log includes records of Oven Temperature.

COMPLIANCE SUMMARY

The required recordkeeping requested during the inspection was received from YG by email on July 21st. YG records included monthly and 12 month rolling VOC and HAP emissions for the period of June 2016 through June 2017. I emailed comments to Frank on August 4th. Frank revised the records and responded by email on August 7th. I identified further issues specific to the 12 month rolling and Annual Report Tabs of the spreadsheet and emailed Frank the same day. Frank replied timely and requested additional time due to a vacation. On August 14th AQD received the corrected spreadsheet.

AQD has determined that Yanfeng Global Automotive Frenchtown 1 and 2 is in substantial compliance with the applicable state and federal regulations and the conditions of their PTI No. 110-04C (at the time of inspection). **All correspondence and records are attached to this report to file.**

NAME



DATE

8/15/17

SUPERVISOR

