DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

U-63-15-01805

U63150180535086

FACILITY: RAMPF Group, Inc.		**SRN / ID:** U631501805
LOCATION: 49037 Wixom Tech Dr., Wixom		**DISTRICT:** Southeast Michigan
CITY: Wixom		**COUNTY:** OAKLAND
CONTACT:		**ACTIVITY DATE:** 06/07/2016
STAFF: Iranna Konanahalli	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:**
SUBJECT: FY 2016 level 2 self-initiated annual inspection of RAMPF Group, Inc.		
RESOLVED COMPLAINTS:		

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RAMPF Group, Inc. (U-63-15-01805)
49037 Wixom Tech Dr.
Wixom, Michigan 48393-3558

www.rampf-group.com

Move: About 2014, moved for a larger manufacturing space: RAMPF Group, Inc. (U-63-11-0341), 50714 Century Court Wixom, Michigan 48393-2066 è RAMPF Group, Inc. (U-63-15-01805), 49037 Wixom Tech Dr., Wixom, Michigan 48393-3558

Building purchase: About April 2016, RAMPF purchased, from Brunt Associates Carpentry and Millwork (P0577), 48953 Wixom Tech Drive, Wixom, nearly adjacent building (23,000 sq. ft. area, heated floors, $72 per sq. ft., 1.656 million dollars). RAMPF will use former Brunt's building with heated floors as a warehouse for raw materials and products.

Toxic: Highly toxic MDI is used as a solvent at this Wixom facility. MIOSHA monitors the facility for MDI in a worker's breathing zone. Periodic MIOSHA reportable MDI incidents occur.

Permit-to-Install: Rules 281, 285, 290 exempt process equipment.

On June 07, 2016, I conducted a level 2 self-initiated annual inspection of RAMPF Group, Inc. ("RAMPF"), a two-component polyurethane manufacturing company, located at 49037 Wixom Tech Dr., Wixom, Michigan 48393-3558. The inspection was conducted to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451; and Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) administrative rules.

During the inspection, Mr. George Sollner (Phone: 248-560-0562-Direct or 248-295-0223-ext. 171601; Fax: 248-560-0562; Cell: 248-420-4962; E-mail: George.Sollner@rampf-group.com), VP – Director of Sales, and Ms. Sarah Sobieck(Phone: 248-295-0223-ext. 171405; Fax: 248-560-0550; Cell: 248-346-6502; E-mail: Sarah.Sobieck@rampf-group.com), Purchasing / Quality / Plant Manager, assisted me.

About September 2013, Mr. Steven Bronsberg (Phone: 248-295-0223-ext. 171511; Fax: 248-560-0554; Cell: 248-425-1063; E-mail: Steven.Bronsbert@rampf-group.com), Plant Supervisor, separated.

Mr. Gordon Winter (Phone: 248-295-0223-ext. 20; Fax: 248-295-0224; Cell: 248-425-1063; E-mail: Gordon.Winter@rampf-group.com), former Plant Manager, moved to RAMPF's Georgia Plant.

RAMPF Group, Inc. ("RAMPF"), an American subsidiary of a German Group of companies, makes reactive resin systems and two-component polyurethane for sealing, casting, bonding, etc. About 2016, RAMPF started making 2-component epoxy resins and fillers as well. RAMPF is privately owned German company. Generally, RAMPF makes two-component (A & B) polyurethanes for consumption by customers although it performs some contract manufacturing (tier-2 supplier) using its own urethane products. RAMPF also builds machines for metered dispensing of materials. In addition, RAMPF makes proprietary clean-up solvents (e.g. RAKU 90-1701, RAKU 90-1743) by blending miscellaneous clean-up solvents for tools and equipment for its customers.

Lab Area

Plasma treatment is given to plastic parts so that surface tension is reduced so that gaskets can stick. At this time door modules for Jeep Wrangler are made.

Contract Manufacturing Area

About three machines are used for contract manufacturing. Gasket application is done at this time (FY 2015) for a sports car and a Jeep Wrangler; predominantly Chrysler contracts.

Mixers

Component A (polyol) is mixed in two (2) mixers using proprietary recipe. Component B (MDI Isocynate) is directly mixed in 250-gallon totes. RMPF, before 2016, used to mix in 55-gallon drum mixers (3) and then transfer to 250-gal totes; this step is eliminated to increase manufacturing efficiency. Miscellaneous clean-up solvents known as Raku Cleaner 90-1701 and 90-1743 are also blended for sale. Raku cleaners use DBE (Dibasiceaster) and NMP (N-methyl-pyrrolidone) in a proprietary proportion. The solvents are mixed and shipped in 55-gal drums.

All process emissions, some of which use fillers (powder), are ducted to a common manifold to carry pneumatically particulate pollutants to Keller Filter System located outside the plant. The filter system is equipped with two 10-gallon drums. The drums that collect particles from filters are emptied once per week. An indicator is present to signal when 10-gallon drums are full. Dust comes from filler materials.

When Raku foams and Raku resins are mixed, powders are involved and the emissions are captured from all mixers and ducted to outside control filter system via a common manifold. The exhaust from Keller Filter System is discharged via 90 ° L-shaped elbow which inhibits dispersion. In addition, the stack height is substantially less than the adjacent building height (about one half), which obstructs dispersion even if exhaust gases are discharged vertically upwards. AQD does not allow this type of obstructed (concerning pollutant dispersion) discharge if permitted (Rule 201).

Three tote MDI product mixers are present. These are 55-gallon drum mixers and particulates are not involved and hence no filters.

The mixers are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285(l) as particulate emissions are captured and controlled.

Tanks (6)

Six (6) 80,000-pound tanks, which are located inside the plant, are present. Of six (6) five (5) tanks contain polyols and one (1) tank contains DBE solvent. Three additional tanks were installed upon moving to larger building (about 2014). All tanks (6) are located in containment area to prevent soil and water contamination.

Oven

One oven (Wisconsin Oven Corporation) is present for curing polyurethane parts. The purpose of the oven is to reduce thermal stresses due to rapid cooling at ambient room temperature. The part is hot due exothermic (release of heat / energy) polymerization reaction. The purpose of the oven is to allow slow cooling such that thermal stresses are alleviated.

Small cold-cleaners

Four (4) 5-gallon parts cleaners with lid and one (1) 1-gallon parts cleaner with lid are present.

A cold-cleaner is subject rule 336.611 or 336.1707 depending on if it is new or existing. A cold-cleaner is exempt from Rule 336.1201 pursuant to Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

I gave DEQ's decals for "cold-cleaner operating procedures" for posting and complying with work-practice rules (FY2015). I asked the company to follow the common sense work practice in the procedures. The decals are posted.

The Cold-cleaners are NOT Subject to: NESHAP/ MACT T, 40 CFR, Part 63, Subpart T, since solvents

containing listed halogenated compounds are not used.

In parts cleaners, two types of solvents are used: RAKU-Cleaner 90-1701 & RAKU-Cleaner 90-1743

RAKU-Cleaner 90-1701: Dibasic ester (70%) and Propylene glycol (30%)

100% VOC solvent. Flash Point (FP) = 103 °F TCC. Auto Ignition = NA °F. Boiling Point (BP) = 185-225 °F @ 760 mm Hg. Vapor Pressure (VP) = NA mm Hg at 68 °F. Specific Gravity (SG, Water = 1.0) = 1.08. Density (ρ) @ 68 °F = 9 lbs. / gallon (1.08 kg /L). Flammability range = 0.8 %v (LEL) – 12%v (UEL).

RAKU-Cleaner 90-1743: 25% n-methyl pyrrolidone (CAS 872-50-4) and 75% DBE

100% VOC solvent. Flash Point (FP) = 200 °F TCC. Auto Ignition = NA °F. Boiling Point (BP) = 374 °F @ 760 mm Hg. Vapor Pressure (VP) = NA mm Hg at 68 °F. Specific Gravity (SG, Water = 1.0) = 1.08. Density (ρ) @ 68 °F = 9 lbs. / gallon (9 kg /L). Flammability range = 1 %v (LEL) – 6%v (UEL).

Due to highly toxic MDI, RAMPF must make sure cold-cleaner's lids are closely tightly at all times in order to ward off personal injuries.

MDI is highly toxic compound and MIOSHA monitors a worker's breathing zone concentration periodically. Occasional MIOSHA reportable incidents attributable to MDI occur. Unlike many facilities using MDI, continuous MDI monitoring devices are NOT present at RAMPF. According to Mr. Sollner, MIOSHA is not requiring a continuous monitoring system for MDI based upon its periodic sampling results.

Conclusion

Mixers are exempt from Rule 336.1201 per Rules 290, 285. Open-top parts cleaners are not allowed; only ones with lid. MDI is highly toxic compound and MIOSHA monitors indoor air concentration periodically.

NAME JS Mcnamara DATE 06/22/2016 SUPERVISOR CJE