

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

FY 2014 Insp

B891926310

FACILITY: GREAT LAKES RUBBER CO INC		SRN / ID: B8919
LOCATION: 30573 BECK RD, WIXOM		DISTRICT: Southeast Michigan
CITY: WIXOM		COUNTY: OAKLAND
CONTACT:		ACTIVITY DATE: 07/22/2014
STAFF: Iranna Konanahalli	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM 208A
SUBJECT: FY 2014 inspection of Great Lakes Rubber Co., Inc.		
RESOLVED COMPLAINTS:		

E-file: B 8919 - SAR - 2014 07 22

Great Lakes Rubber Co., Inc. (B8919)
30573 Beck Road
Wixom, Michigan 48393-2817

Phone: 248-624-5710
Fax: 248-624-4770

Two voided PTI Application Nos.: 324-96 (01/08/1997) and 27-82 (07/27/1989). PTI App. No. 27-82 is associated with Great Lakes Fiberglass.

208a registered facility in association with Mac Valves, Inc. (SRN: N3254)

SIC: 3069 for Great Lakes Rubber Co., Inc. (B8919) and 3491 for Mac Valves, Inc. (SRN: N3254). As first two digits are different (30 Vs 34), the two manufacturing plants are different facilities although under common ownership and contiguous and adjacent.

Not subject to: area source National Emission Standards for Hazardous Air Pollutants: Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T; NESHAP/ MACT T); Correction; 29484 Federal Register / Vol. 60, No. 107 / Monday, June 5, 1995 / Rules and Regulations; amended National Air Emission Standards for Hazardous Air Pollutants: Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T); Final Rule; Page 25138 Federal Register / Vol. 72, No. 85 / Thursday, May 3, 2007 / Rules and Regulations

On July 22, 2014, I conducted a level-2 self-initiated inspection of Great Lakes Rubber Co., Inc. ("Great" or "GL Rubber"), adjacent to and owned by Mac Valves, Inc., located at 30573 Beck Road, Wixom, Michigan 48393-2817. 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.

The inspection is a result of Rule 208a questions concerning two adjacent, contiguous, commonly controlled and owned facilities.

During the inspection, Mr. Don De Mallie (Phone: 248-624-5710; E-mail: ddemallie@GreatLakesRubberCo.com), President, and Ms. Amy Brown (Phone: 248-624-7700-ext. 340; Fax: 248-624-0549; E-mail: amy.brown@macvalves.com), Facility Engineer, Mac Valves, assisted me. Since 1989, Mac Valves owns Great Lakes Rubber Co., which is a principal supplier of rubber gaskets, O-rings and other sealer / leak-prevention devices to Mac Vales.

Mr. Dave Meinke (Phone: 248-624-7700; Fax: 248-624-0549; E-mail: dave.meinke@macvalves.com), Quality Manager, Mac Valves, is involved in quality management and not involved in safety and environmental issues any more. Ms. Amy Brown replaced him as Facility Engineer about May 2014.

Mr. Michael Clemens (Ph: 248-624-5710; E-mail: mclemens@greatlakesrubberco.com), Engineering Manager, separated in August 2013 from GL Rubber.

The purpose of inspection was Rule 208a issues. I explained Mr. Mallie and Ms. Brown the options available for both Great Lakes Rubber and MacValves. Ms. Brown would apply for two separate ROP opt-out permits: one for Great Lakes and other for MacValves. Existing MacValve permit would be revised to include the opt-out conditions.

Founded in 1979, Great Lakes Rubber Co. provides a wide range of services in rubber sealer products:

1. Custom rubber formulation and mixing: lubrication, environmental resistance (oils, fuels, solvents, etc.)
2. Prototyping: developing and testing prototype parts
3. Rubber testing: GL Rubber's laboratory supports product development, QC, etc.
4. Rubber Molding
5. Form Grinding: robotic grinding to tight tolerance and digital imaging
6. Cryogenic Deflashing: rubber, plastic, metal parts are deflashed and deburred using cryogenics.
7. Assembly etc.

Mixer and rollers (Baghouse) – Batch process

Polymer, rubber, carbon black, waxes, oils and curing compounds are mixed, according to a formulation recipe, in the process using a mixing tank (Ban Bury Mixer). No external heat is provided to the mixture. However, the mixture temperature rises due to friction of mixing (T = 150-260 °F). The process is equipped with a dust collector (Dustvent) consisting of eight (8) bags with 55-gallon drum hopper.

Because exhaust air is recirculated upon cleaning into the building, the process is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285(l).

The bags are cleaned using a manual shaker mechanism; the bags are shaken daily. The dust collector is operated only when the rubber mix batches are made. About five (5) batches per day are made.

Besides, two roller units to flatten thus mixed rubber into sheets are also present. Each unit is equipped with a dedicated fume / particulate capture device. The captured fumes are ducted to the mixer's baghouse.

Because exhaust air is recirculated upon cleaning with a baghouse into the building, the process is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285(l).

Sandblasting Unit (Cyclone and Fabric Filter)

Metal parts surface is prepared by sandblasting with aluminum oxide grit (MultiBlast R1400). The process is equipped with an air pollution control system, 6-cartridge HEPA filter system, to collect the dust. The collected grit is reused. The six HEPA cartridges are cleaned using a pulse-jet air system based upon differential pressure across the filter ($\Delta P \geq 2.5$ inches of water). Collected grit is reused and fines that are lost are made up with fresh grit.

Because exhaust air is recirculated upon cleaning with an air pollution control device into the building, the process is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285(l).

6 feet * 6 feet adhesive spray booth

One adhesive spray booth (20 gal / month), one rubber molding area, and one dip brush adhesive area are present. The adhesive booth is 6 feet * 6 feet in dimension and is equipped with dry filters. During the FY 2009 inspection, filters were not installed properly; there were holes in the filter system. About 4.5 gallons per month toluene (CAA Hazardous Air Pollutant or HAP) are used as diluent solvent for adhesives.

During the FY 2014 inspection, I asked Ms. Amy Brown to install the filters such that they fit, at all times, snugly without gaps and holes. I also asked her to keep records of adhesive and solvent usage.

The filters are changed every shift.

The booth is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1287(c) or Rule 336.1287(a). The booth is small source of VOC emissions.

3 ft * 2 ft cold-cleaner

There is one 3'x2' parts cold-cleaner with a solvent tank for soaking. The parts cleaner is soak tank type. No additional reservoir drum. The 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. By definition, the cold-cleaner is new because it was installed after 1990. The cold-cleaner is equipped with peddle-assisted lid that was closed during the inspection. During FY 2009 inspection, I gave Mr. Meinke copies of DEQ's "cold-cleaner operating procedures" so that he can post them at both Mac Valve and Great Lakes Rubber.

I gave again on July 22, 2014 (FY 2014) the decals. The procedures were not posted on July 22, 2014.

Mr. De Mallie furnished MSDS for the cold-cleaner and proved that only solvent used was

methyl ethyl ketone or MEK or 2-Butanone (C₄H₈O; CAS # 78-93-3; density = 6.74 lbs VOC / gal = 0.805 g / cm³; Specific Gravity = 0.81 (water =1); Flash Point =16 °F; Flammability Range: LEL = 1.8%v to UEL = 10%v; Vapor Pressure = 100 mm Hg at STP 25°C & 1 atm.; Viscosity = 0.43 cP or centipoise; BP = 176°F; MW = 72.12).

The solvent has high potential for fire and explosion due to low flash point and wide flammability range.

MEK Product Code: 217110 (Americhem)

Cryogenic deflashing unit

One cryogenic deflashing unit, which uses liquid nitrogen to maintain cryogenic conditions (negative 40 °F) is present.

Ozzy juice cleaner

One Cyntas water-based parts washer is present. Ozzy juice, a certified Clean Air Solvent is used. The Ozzy juice contains emulsifiers and surfactants.

Unlike MDEQ-AQD's database (Permit Cards), Mr. De Mallie stated again that Great Lakes Rubber had nothing to do with Great Lakes Fiberglass (PTI No. 27-82). He did not know why AQD's database associated GL Fiberglass with this address.

Mac Valve purchased GL Rubber in 1989 and Mac Valve continues to own it. While SIC for Great Lakes Rubber Co., Inc. (B8919) is 3069, SIC for Mac Valves, Inc. (SRN: N3254) is 3491. As first two digits of SIC are different (30 Vs 34), the two manufacturing plants are different facilities although both are under common ownership and adjacent to one another.

The definition of "**major stationary source**" requires a tripartite test for determining the geographic extent of a single source. Specifically, a major stationary source is defined as all of the pollutant emitting activities that are (1) located on one or more contiguous or adjacent properties; (2) are under common control of the same person (or persons under common control); and (3) belong to a single major industrial grouping or are supporting the major industrial group (as determined by the Major Group codes in the Standard Industrial Classification Manual).

Ms. Noelle Grain of MDEQ-OWMRP (Office of Waste Management and Radiological Protection) conducted a RCRA inspection about March 6, 2013. Ms. Grain is helping the company with a RCRA re-designation from "*Small Quantity Generator*" to "*Conditionally Exempt Generator*".

Conclusion

Great Lakes Rubber appeared to be in compliance. As first two digits are different (30 Vs 34), the two manufacturing plants are different facilities although both are under common ownership and adjacent to one another.

NAME J. J. Hennrich DATE 8/8/2014 SUPERVISOR CJE