

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

FY 2014 Insp

U6312002225956

FACILITY: Pratt Miller Engineering Fabricator		SRN / ID: U63120022
LOCATION: 29600 W.K. Smith Road, New Hudson		DISTRICT: Southeast Michigan
CITY: New Hudson		COUNTY: OAKLAND
CONTACT: <i>[Signature]</i>		ACTIVITY DATE: 06/05/2014
STAFF: Iranna Konahalli	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Initiated inspection of Pratt Miller Engineering Fabricator. ("Pratt")		
RESOLVED COMPLAINTS:		

E-file: U 63 12 0022 SAR 2014 06 05

Pratt Miller Engineering Fabricator (U-63-12- 0022)
29600 W.K. Smith Road
New Hudson, Michigan 48165-9722

Permit-to-Install: Rules 290, 285, 287, 281 exempt process equipment.

Subject to: Area Source NESHAP / RICE MACT 4Z, 40 CFR Parts 60 and 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines; New Source Performance Standards for Stationary Internal Combustion Engines (ICE);, Page 6674 Federal Register / Vol. 78, No. 20 / Wednesday, January 30, 2013 / Rules and Regulations / Final Rule. This final rule is effective on April 1, 2013.

On June 5, 2014, I conducted a level-2 self-initiated inspection of Pratt Miller Engineering Fabricator. ("Pratt"), a race car engineering and prototyping company, located at 29600 W.K. Smith Road, New Hudson, Michigan 48165-9722. 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. Robert (Rob) Oldenburg (Phone: 248-446-9800; Fax: 248-446-9020; Cell: 517-404-1229; E-mail: roldenburg@prattmiller.com), Facilities Manager, assisted me.

Mr. Russell Elliott (Phone: 248-446-9800; Fax: 248-446-9020; Cell: 248-755-8051; E-mail: relliott@prattmiller.com), Shipping & Receiving Manager, does not have responsibilities for safety and environmental affairs anymore. Mr. Oldenburg took SHE responsibilities.

Pratt Miller is in the business of race cars engineering and prototyping. Pratt is a dominant force in professional racing. Pratt is full-service engineering and low volume manufacturing company. Pratt also restores old classic cars. It involves machining, cutting, grinding, welding, painting, etc. processes. Pratt employs about 300 workers / employees (increased from 200 in CY2011 to 300 in CY2014), ninety percent of them engineers.

Rule 290 Magnaflex Room

Solvent with fluorescent dye is sprayed over metal parts so that cracks on parts can be observed. The solvent containing this dye is re-circulated / recycled / reused. Negligible quantity of solvent is evaporated.

Rule 290 Composite Material Processes

Carbon fiber cloth is impregnated with a polymer and a hardener. Parts are molded and enclosed in a plastic bag and air is sucked out of the bag creating no-air environment surrounding the part. The mold is baked for 2 hours in a natural gas fired 1.5 MM BTU per hour oven (12 ft. W* 20 ft. L* 10 ft. H dimensions; Jenson Industries of Whitmore Lake, Michigan; Phone: 800-883-6836) at 160 °F to cure the mixture of the polymer and the hardener.

Carbon fiber is light-weight replacement material for race cars. Door panels, etc. are replaced with carbon fiber doors so that weight of race car is reduced.

Rule 287(c) Paint Spray Booth

One paint spray booth (26 ft. x 14 ft.) with a back-draft and side-draft dry filter system is present. There is a filter system for intake air. Paint usage records are not kept; about 4 gallons of primer paint and 2 gallons of thermal dispersion coatings per month are used (CY 2014).

During FY 2014 inspection, I found one of the filter panels was partially removed. This is a violation of to Rule 336.287(c).

I asked Mr. Oldenburg to install and inspect the filters such that they fit, at all times, snugly without gaps and holes. I also asked him to keep records of paint and solvent usage according to Rule 336.287(c).

The booth is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.287(c).

Upon keeping usage records, the coating booth meets all of the Rule 336.1287(c) conditions:

1. The coating use rate is not more than 200 gallons, as applied, minus water, per month.
2. Any exhaust system that serves only coating spray equipment is supplied with a properly installed and operating particulate control system.
3. Monthly coating use records are maintained on file for the most recent 2-year period and are made available to the air quality division upon request.

Rule 287(b) Paint Spray

One aerosol can spray coating process is present. Only spray cans are used. The aerosol can spray process is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.287(c).

Due to odor issues most the time aerosol can spraying occurs within the 287(c) booth.

Rule 285 welding, metal cutting, metal grinding machines

12 metal grinding, lathes, milling machines are present. Each machine has its own capture device for particulate matter emissions. The captured particulate exhaust is filtered using a cartridge filter system. No exhaust to outside ambient air. Some machines, upon filtration, exhaust to outside ambient air. Each Air Pollution Control Device consists of a cyclone (40-gallon hopper) and a cartridge filter (20-gallon hopper)

10 welding machines are present. Each machine has its own capture device and air filtration device for particulate matter emissions. No exhaust to outside air.

CNS Mills and Lathes are present. Metal shavings are sold / recycled by a waste metal management company.

Metal cutting processes are present. Neosol-300 coolant is used and is recycled / reused.

The machines are exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285 (l).

4 solvent cold-cleaners and 2 aqua-cleaners

There are five Safety-Kleen parts cold-cleaners with spray a brush and a solvent tank. The cold-cleaners are 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.

Each machine is sink-on-tank type.

Mechanically assisted lids are present. Lids were open during the FY 2012 inspection. I asked Mr. Oldenburg to keep the lids closed when access not required. Lids were closed during the FY 2014 inspection. Safety-Kleen serviced each cold-cleaner.

Safety-Kleen supplies the solvents and services the cold-cleaners.

The Cold-cleaners are NOT Subject to: 40 CFR, Part 63, Subpart T, NESHAP/ MACT T, since solvents containing halogenated compounds are not used.

On June 5, 2014, I gave Mr. Oldenburg DEQ's decals for "cold-cleaner operating procedures" for posting and complying with work-practice rules. I asked the company to follow the common sense work-practice as described the decal.

Cadillac and Corvette bays are present to maintain, repair, service race cars. In these bays cold-cleaners are located.

Mineral spirits containing no halogenated solvent is used; i.e. Safety-Kleen Gold Solvent 6605 and 6616. 100% VOC, Petroleum Distillate.

100% VOC solvent. Flash Point (FP) = 148 °F TCC. Auto Ignition = 480 °F. Boiling Point (BP) = 350 °F @ 760 mm Hg. Vapor Pressure (VP) = 0.2 mm Hg at 68 °F. Specific Gravity (SG, Water = 1.0) = 0.79. Density (ρ) @ 68 °F = 6.7 lbs / gallon (0.790 kg /L). Flammability range = 0.7 %v (LEL) – 5%v (UEL).

45 kW (0.045 MW) SI RICE Emergency Generator (GGPC Cummins Power Generation 45/50kW NG/LP). This is equivalent to 60 hp without considering efficiency of work-to-electricity conversion based upon <http://www.globalpwr.com/power-calculator/>

Model: GGPC A046D878

Serial No.: K130598582

One 45 kW (0.045 MW) natural gas fired Spark Ignition (SI) Reciprocating Internal Combustion Engine (RICE) Emergency Generator is present. SI RICE is manufactured about November 20, 2013. The generator, under emergency power interruption, provides power to

the computer center and keeps few lights on.

The generator is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1285(g).

RICE SI MACT

Subject to: Area Source NESHAP / RICE MACT 4Z, 40 CFR Parts 60 and 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines; New Source Performance Standards for Stationary Internal Combustion Engines (ICE);, Page 6674 Federal Register / Vol. 78, No. 20 / Wednesday, January 30, 2013 / Rules and Regulations / Final Rule. This final rule is effective on April 1, 2013.

A combined total of 100 hours per year may be used to prevent blackouts and brownouts without meeting emission limits for the following purposes:

1. maintenance and testing,
2. emergency demand response for Energy Emergency Alert Level 2 situations,
3. responding to situations when there is at least a 5 percent or more change in voltage,
4. operating for up to 50 hours to head off potential voltage collapse, or lineoverloads, that could result in local or regional power disruption.

RICE SI NSPS 4J,40 CFR 60, Subpart JJJJ

Spark Ignition engine emergency >25 HP (Cummins 60 hp / 45 kw) manufactured on/after 1/1/2009 is subject to NSPS 4J. Compliance determination will be during the next inspection.

Conclusion

The machines, booths, painting, degreasing process are exempt from Rule 336.1201 per Rules 290, 281, 285, 287, etc.

NAME *J. L. Kananakali* DATE *07/15/2014* SUPERVISOR *CTE*