

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

N667830148

FACILITY: H & S PROPELLER SHOP, INC		SRN / ID: N6678
LOCATION: 8220 Old White Lake Rd, WHITE LAKE		DISTRICT: Southeast Michigan
CITY: WHITE LAKE		COUNTY: OAKLAND
CONTACT: Bryan Mathews, Owner		ACTIVITY DATE: 07/08/2015
STAFF: Kerry Kelly	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT:		
RESOLVED COMPLAINTS:		

On July 8 and July 14, 2015, AQD staff Kerry Kelly, Rebecca Loftus, and Francis Lim conducted an unannounced inspection of H&S Propeller Shop Inc. (H&S) located at 8220 Old White Lake Road, White Lake, Michigan. This facility is identified by the Air Quality Division with the State Registration Number (SRN) of N6678. The purpose of this inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); Michigan's Air Pollution Control Rules; and 40 CFR part 63 Subpart T - National Emission Standards for Halogenated Solvent Cleaning.

Company Information

H & S, with a staff of eight people, repairs and overhauls airplane propellers and governors. Regular hours of operation are Monday – Friday 8:00 am to 4:30 pm.

Inspection

AQD staff entered the building, identified themselves, presented DEQ employee photo identification, explained the purpose of the inspection, and gave a copy of the pamphlet "Environmental Inspections: Rights and Responsibilities" to Mr. Bryan Mathews, President. Mr. Mathews accompanied us on our inspection.

The repair and overhaul process includes disassembly, degreasing, inspection, grinding, non-destructive testing, and surface coating of airplane propellers.

Process Equipment

Vapor Degreaser

H&S uses an "Model BACT 48" vapor degreaser, manufactured by Vapor Engineering, Inc.; Pensacola, Florida, to clean propellers and propeller components. The degreaser is unpermitted and emissions are vented to the exterior of the building via duct-work. Trichloroethylene (TCE) is the solvent used in the vapor degreaser. The waste solvents from the degreaser are stored in sealed drums and collected by Parts Cleaning Technologies, LLC. H&S has elected to comply with the "alternative standards" (63.464) of 40 CFR part 63 subpart T- National Emission Standards for Halogenated Solvent Cleaning. The alternative standard limits the 3-month rolling average monthly emissions to 150 kilograms/square meter/month. The batch vapor degreaser at H & S has a solvent/air interface of 0.929 square meters. The adjusted 3-month rolling average monthly emission limit for this unit is 139.35 kilograms (307.2 pounds). Staff requested a log of solvent additions and deletions for the solvent cleaning machine, records of solvent composition of wastes removed from cleaning machine, calculation sheets showing how monthly emissions and the rolling 3-month average emissions were determined, and semi-annual exceedance report for the first half of 2015 as required to demonstrate compliance with 63.464 and 40 CFR 63 Subpart T. Mr. Mathews submitted all requested documents by August 3, 2015. H & S reported there were no exceedances between January and June 2015. The vapor degreaser process appears to require a permit to install per R 336.1201 because the emissions are externally vented.

Cold Cleaner

The cold cleaner at H & S has an air/vapor interface less than 10 square feet. The lid was closed and the procedures for operation were provided for the cleaner. Waste solvents are stored in sealed drums and are collected by Safety Kleen. The cold cleaner appears to be in compliance with the requirements of R 336.1707 and exempt from R 336.1201 in accordance with R 336.1281(h).

Nondestructive testing

The non-destructive testing room contains a parts dryer and a magnaflux system. The Magnaflux system is used to detect surface flaws in ferrous metal parts. The parts are dried, sprayed with the magnetic

particle dye solution, and charged by passing an electro magnet over the part. The magnetic field causes the small particles in the solution to align themselves with that magnetic field. Aluminum parts are inspected using a dye penetrant. The equipment in the non-destructive testing room appears to vent into the general in-plant environment. The Magnaflux machine and parts drying processes appear to be exempt from the requirements of R 336.1201 per R336.1283 (1)(d) and R 336.1281(e) respectively.

Shot Blast & Grinding Room

The shot blast machine is self-contained and attaches to a filtration system that appears to exhaust to the facility interior. The grinding process equipment has a grinding hood that exhausts directly to a fabric filter which exhausts to the building interior. The sand blast and grinding processes appear to be exempt from R 336.1201 per 336.1285(1)(vi)(B).

Surface coating

A spray booth that is used to coat propellers was inspected. The exhaust system that serves the coating spray equipment had a properly installed and operating particulate control system. A QD staff requested monthly coating use records. Mr. Mathews provided the monthly coating usage records on July 13, 2015. The total coating usage recorded for 2014 was 10 gallons. The coating line appears to be exempt from R 336.1201 per R 336.1287(c).

Electroplating Line:

H&S has a small electroplating line that releases emissions into the general in-plant environment. This process appears to be exempt from R 336.1201 per R 336.1285(r).

Conclusion

H& S Propeller Shop Inc. appears to be in violation of R 336.1201 for the vapor degreaser that is externally vented. A letter of violation shall be issued.

NAME *Berry A. Kelly* DATE *8/5/15* SUPERVISOR *CJE*