

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

U-63-13-0087

U6313008735654

FACILITY: Prowheels, Inc.	SRN / ID: U63130087
LOCATION: 12720 Capital Street, Oak Park	DISTRICT: Southeast Michigan
CITY: Oak Park	COUNTY: OAKLAND
CONTACT:	ACTIVITY DATE: 07/14/2016
STAFF: Iranna Konanahalli	COMPLIANCE STATUS: Compliance
SUBJECT: FY 2016 inspection of Prowheels, Inc.	SOURCE CLASS:
RESOLVED COMPLAINTS:	

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Prowheels, Inc. (U-63-13-0087)
12720 Capital Street
Oak Park, Michigan 48237-3114

On July 14, 2016, I conducted a level-2 self-initiated inspection of Prowheels, Inc. ("Prowheels"), an automobile wheels refurbishing and painting facility, located at 12720 Capital Street, Oak Park, Michigan. 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 FY2016 inspection, Mr. Leo Simonian (Phone: 313-342-8300; Fax: 313-342-8302; E-mail: leo@prowheels.net), Owner, assisted me. Mr. Greg Biznooni, Plant Manager, was not present.

Prowheels buys damaged or used automobile wheels from junk yards, wholesalers, etc. It performs sanding, grinding, welding (only aluminum), etc. operations on them to repair / refurbish. Paints them with both basecoat, which is usually solvent-based liquid coating, and / or clearcoat, which is usually powder coating. Prowheels sells refurbished wheels on eBay, repair shops, collision shops, tire shops, etc.

Metal cutting, lathe, CNC (Okuma) machines

One lathe metal cutting, one CNC (Okuma) machines are present. As operations involve only aluminum (softer material) wheels, cooling liquids are not used. Moreover, cooling liquids impart undesirable color to aluminum wheels. No exhaust to outside ambient air for these machines. Metal shavings / turnings are dropped on the floor by gravity; waste aluminum is sold for recycling / remelting.

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

20 ft. * 12 ft. paint spray booth

The booth is exempt from Rule 336.1201 pursuant to Rule 336.1287(c) provided all the requirements of exemption are met. The booth is equipped with back-draft dry filter system. Intake air is also filtered for product quality. Prowheels uses approximately 2-3 gallons of paint per month. All coatings are solvent based.

During FY 2016 inspection, I found some gaps in the filter system. I asked Mr. Simonian 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.

Powder coating booth

One powder coating booth is present. The booth is equipped with back-draft exhaust filters consisting of small bags to capture overspray powder. Intake air is also filtered for product quality. Prowheels does capture (using the small bags that are part of backdraft filter system) and recycle / reuse overspray paint powder. Powder-coating is usually clear coating.

The powder coating booth is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.287(d) as the booth is equipped with a filter system. Besides, the powder coating booth does NOT exhaust to outside ambient air; filtered air is released to in-plant environment. One additional pleated filter system (secondary) is present at the exhaust end (on top of the booth) to improve indoor air quality.

Both liquid and powder coating booths are used for painting refurbished automobile wheels.

The powder coating produces very high coating transfer efficiency (TE > 90%) as result of reusing over-spray powder that is captured. Powder coatings are low in VOCs; typically less than 1% VOC. Predominantly, VOC emissions are from curing oven due to monomer crosslinking. The filters that capture the powder for recycling / reusing insure low particulate emissions. While powder coatings contain ≈1% VOC, solvent-based coatings contain 40-70% VOC. While powder coatings result in over 90% transfer efficiency, liquid spray coatings (with no electrostatic) can attain ≈50% transfer efficiency.

Sandblasting machine

Sandblasting machine is inoperable.

Solvent use

I asked Mr. Simonian to minimize solvent use with twin goal of protecting environment and saving money. I asked him to ensure 1-gallon container's lid / cap is always closed to prevent evaporative solvent losses and accidental spills. Again, to prevent evaporation, I asked him keep all solvent laden rags in a closed container.

I asked him to provide worker training regarding proper work-practice regarding solvent handling. Solvent poses fire and safety hazard.

Conclusion

The powder coating booth [287(d)], liquid paint coating booth [287(c)], grinding / cutting / sanding machines [285 (l)] are exempt from Rule 336.1201.

NAME J. Shevanehall DATE 07/22/2016 SUPERVISOR CTE