

M4571
MANILA

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

M457150453

FACILITY: METROTECH COLLISION		SRN / ID: M4571
LOCATION: 1301 MICHIGAN AVENUE & 1301 LEVERETTE, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Louay Hussein , Manager		ACTIVITY DATE: 07/30/2019
STAFF: Terseer Hemben	COMPLIANCE STATUS: Compliance	SOURCE CLASS: Minor
SUBJECT: Spray Paint Booth; VOC		
RESOLVED COMPLAINTS:		

SCHEDULED INSPECTION

METROTECH COLLISION (MC).

INSPECTOR: Terseer Hemben EGLE-AQD

PRESENT: Sam Hussein MC

Date of Inspection: July 30, 2019

SRN: M4571

Address: 1301 Michigan Ave, Detroit, MI 48226

Regulatory Rules:

State: R 336.1201; R 336.1287(2)(c), R 336.1910; R 336.1901.

FACILITY BACKGROUND: A Spray-Painting Process.

The Metrotech Collision Inc. (MC) operates an auto collision shop with an onsite spray paint booth system at the 1301 Michigan Avenue, Detroit, Michigan. The spray paint process involves sanding, priming and coating of metal surface with a VOC based coating. This process decorates the finish and body-looks of the automobile. MC installed and operates one booth at the site. The business operates 6 days in a week for 8 hours per day. The booth is equipped with air ventilation that draws paint fumes across the fabric filters into the down draft duct and out to the ambient via the stack. The booth was installed in 1980s. However, there were no records to indicate the equipment was approved by the Wayne County Department of Environment. The facility burned down and was abandoned until it was renovated and operated in 2001-2002. There are no documents relating the booth's regulatory conditions owing to the previous fire event. The shop performs sanding (no sandblasting), grinding, cutting, hand brush-washing and spray painting. There is no paint stripping using chemicals therefore, the facility is in compliance with federal conditions of 40 CFR 63, subpart 6H. The spray painting is conducted in the booth using a HVLP standard gun with efficiency higher than 75%. Emissions from the sanding and cleaning process are discharged inside the in-plant environment. MC utilizes services of Heritage Crystal Clean, LLC (HCCL) for several purposes. The company provides alkaline solution made of soap and water. The lesonal soap, referred to as Lesonal Surface Cleaner-AutoPrep Ultra-Prep (VOC compliant) or Plastic Surface, does not qualify as cold cleaner or degreaser. The cleaner works at near-room temperature. HCCL also maintains spent fabric filters used in the booth. Wastes from filter changes, paint usage, and spent prewash solutions are removed from the site for disposal as contracted by the HCCL.

The MC is a small source by the volume of paint used per month. Records submitted by MC indicates the facility does not exceed 200 gallons per month in paint and solvent use. The facility operates the booth under the exempt Rule 287(2)(c) exemption as applied. Precleaning processes for surface preparation of metal parts are exempt under Rule 281(2)(e), for equipment used for

washing or drying materials, where the material itself cannot become an air contaminant, if no volatile organic compounds that have a vapor pressure greater than 0.1 mm of Hg at standard conditions are used in the process and no oil or solid fuel is burned.

INSPECTION NARRATIVE

I arrived at the MC facility on July 30, 2019, at 1150 hours. The purpose of visit was to conduct a compliance inspection. Temperature at the hour was 81 F with windspeed 6 mph, and humidity 56%. I was admitted onto the facility by Mr. Sam Hussein. We conducted a pre-inspection interview. Mr. Hussein informed there had been no change made to the coating equipment or process since the business was resumed in 2002. We proceeded to tour the workshop parts preparation process area and paint spray booth, and duct-stack areas. There is no designated oven. The company sets finished work in the spray paint booth to cure under air draft. We returned to the office for post inspection conference. Sam presented the paint use and purchase records, paint spray booth maintenance records including filter replacement and waste management activities. The facility and process were maintained through contract management. I received copies of records extracted from recordkeeping files [Attachment MC, pgs. 1-27].

COMPLAINT/COMPLIANCE HISTORY:

Previous odor complaints were registered against the facility; however, the complaints were all resolved. There is no recent complaint attributed to the facility's operations.

OUTSTANDING CONSENT ORDERS:

None

OUTSTANDING VNs:

None

SCHEDULE/PRODUCTION RATE:

The facility operates a one 8-hour shift from Monday to Saturday depending on production load.

PROCESS DESCRIPTION:

The MC has no records to indicate if the paint shop was initially permitted by the Wayne County Department of Air Pollution Control and Health before the fire occurred in the 1980s. The facility meets exemption from Rule 201(1) as allowed by the Rule 287(2)(c). Controls for the process are built into the equipment and process. The spray paint booths have dry filters with cross draft and downdraft pressure that draws gas streams through the fabric filters. The filters have standard removal efficiency 99.8%. The guns have delivery efficiency above 75%. The coatings have VOC content [Attachment MC, pgs. 1-12].

MC demonstrated the facility does not use chemicals to strip paint form auto parts. Tour of the shop demonstrated the application of hand tools and technique for removing paint from auto parts. No chemicals are used to strip paints at the shop. Hence the painting process is methylene chloride free. Auto parts surfaces are hand-sanded and washed with aqua-based detergents before proceeding with the painting process. Emissions from the metal surface preparation processes are discharged in in-plant environment and covered under exempt Rule 285(2)(I)(vi) (B). Surface finished metal parts are set in the booth for spray painting. Gaseous exchange during the painting process with the ambient air takes place through the fabric filters and ducts that vent into the single stack. Spent filters are regularly removed and disposed through waste management contractors [Attachment MC, Pgs. 13-25].

APPLICABLE RULES/ NESHAP CONDITIONS:

Rule 201 (1) – MC operated under the Rule 287(2)(c) and Rule 285(2)(I)(vi)(B) exemptions for spray booth, and metal precleaning. Mr. Hussein stated there had been no change or modification of equipment or process at the facility. The facility operated in compliance with the exempt rules.

MC submitted records stating paints supplied by a contracted HCCL and the quantity used at the shop. Records submitted indicated the paint use was less than 200 gallons per month. Records submitted by MC indicated the facility used 12.96 gallons of paint and solvent between 1/1/2018 and 2/01/2018 (1 month). [Attachment MC, Pg. 1, January column list]. Records regarding emissions monitoring were maintained for at least 5 years for examination by the AQD.

MC stated the company demonstrated a supply arrangement of set quantity of paint in credit line with the paint supplier, the HCCL. The paint supplier delivers the set number of gallons of paint per month to replace the quantity used. The quantity of paint delivered did not exceed 200 gallons per month based on the paint usage as logged in spreadsheet calculations. [Attachment MC, Pgs. 1-4].

MC maintained the downdraft gravity spray paint booth, and gun, HVLP compliant certified filters and associated equipment in a satisfactory manner [Attachment MC, pgs., 7, & 9]. Visual inspection indicated the guns used for spraying the paint were washed using Lesonal cleaner with 2.0+- 1% by volume organics and stored in a trough located in the booth area. Spent filters were changed and disposed offsite through contractor arrangements [Attachment MC, Pgs. 15-25].

MC managed all wastes generated from painting processes and disposed in a satisfactory manner through a contractor. Wastes packed in a 55-gallon drums are picked up by the contractor along with the spent filters for disposal off the site [Attachment MC, Pgs. 15-25].

MC presented the technical information qualifying the Lesonal recommended spray guns used in spray coating had an efficiency of 98% or equivalence of HVLP or equivalent technology [Attachment MC, Pgs. 5 & 9].

MC operated the spray booth that was properly installed with quality filters and operated in a satisfactory manner. Information regarding the equipment was obtained in a previous inspection and is attached [Attachment MC, Pgs. 15-25].

MC maintained and kept the MSDS information for paints used for coating. The document was kept and maintained on site for examination by the EGLE-AQD. The SDS examined during the inspection is same as the sample extracted. [Attachment MC, Pgs. 5-12].

MC discharged the exhaust gases from coatings vertically unobstructed through the stack to the ambient air. Visual inspection of ducts, stack and external discharge point confirmed the compliance operation of the stack.

REGULATORY DISCUSSIONS

The Pre-alkaline wash cleaner at the facility is exempt from PTI requirements under the following rule, which states-

R336.1281(2)(e): “The requirement to obtain a PTI does not apply to... equipment use for washing or drying materials where the material itself cannot become an air contaminant, if no volatile organic compounds that have vapor pressure greater than 0.1 mm of mercury at standard conditions are used in the process and no oil or solid fuel is burned.”

The prewash consists of warm soap and water, which deals with less than 1 % organic by weight

(2.0 +-1% by volume) component and requires copious amount of water as a bulk solvent.

R336.1707(2) – The prewash system is neither a cold cleaner nor degreaser. The requirement does not apply.

The prewash soap has less than 1% VOC by weight in organic content. The soap is applied at warm but close to room temperature [Attachment MC, pg. 7].

Rule 910: MC properly installed, maintained, replaced and disposed fabric filters in a satisfactory manner.

Rule 301: There was no visible emission coming out of the stack at the time of the inspection.

Rules 901: There were no unusual odors or complaints associated with the facility at the time of the inspection.

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:

This facility did not have nor needed a fugitive dust plan.

FINAL COMPLIANCE DETERMINATION:

The inspection of Metrotech Collision facility and review of record keeping determined the MC operated the spray paint booth in compliance with the Michigan Air pollution control rules, paint stripping methylene chloride free process and recordkeeping. The facility complied with the exempt Rule 287(2)(c) and exempt rule 285(2)(1)(vi)(B).

NAME

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DATE

10/8/2019

SUPERVISOR

JK