

B5046
MAWILA

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

B504649092

FACILITY: GLADCO EQUIPMENT		SRN / ID: B5046
LOCATION: 15200 HURON ST, TAYLOR		DISTRICT: Detroit
CITY: TAYLOR		COUNTY: WAYNE
CONTACT: Scott Sander , Vice president		ACTIVITY DATE: 05/15/2019
STAFF: Terseer Hemben	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: PM, metal surface finishing processes		
RESOLVED COMPLAINTS:		

SCHEDULED INSPECTION: SMS TECHNICAL SERVICES

SRN B5046

15200 Huron Street, Taylor, MI 48180

Present: Tom Gunnell Plant manager

Terseer Hemben EGLE AQD

Date: May 15, 2019

Facility Phone: 734-246-8250; Fax: 734-246-8209; Mobile: 734-516-6782

BACKGROUND:

SMS Technical Services (SMS) operates CNC equipment repairs for Iron and Steel industries. The facility hauls in segments of iron and steel rollers from steel companies and dismantles the set into segments. A segment comprises a pair of cylindrical rollers, spindle bars that form the core rotor with greased ball bearings. Typically, a minimum of two rollers are connected in parallel forming an arrangement that provides molten steel to flow between slit between the rollers producing through-flow molt as steel sheets. Worn out rollers on the CNC segments are disassembled, and roller surfaces are stripped and grinded. The grinds comprise metal chips and filings. Grinds are recovered and resold to steel milling companies. The roller drums are further sandblasted using iron steel shots in an enclosed machinery to produce smooth surfaces. Spent blast shots are removed from site via cyclones located inside the building, bagged and dumped into collectors. The operation of this process met the requirements of Rule 285 (2)(l)(vi)(B) ... covering equipment for carving, cutting, routing, turning, drilling...that has emissions released only in the in-plant environment. Recovered metal particles and particulates are stored in the same bins with iron and steel shavings for recycling. Filings and spent blast shots are moved from the facility once per month under contractual services. Ball bearings and associated bolts and nuts disassembled from the segments are cleaned using a hand wash basin comprising a hand brush. The basin is covered when not in use. A mixture of organic cleaners is introduced into the small portable vessel set on wheels, closed and moved around to disassembling stations in the workshop. Clean parts are dried and assembled on the segments. The metal pre-cleaning unit is contractually maintained by the Crystal Clean, LLC. The company removes the spent cleaning fluid from the site and recycles for fresh cleaning fluid as needed. This process met the exempt requirements of Rule 285 (2)(r)(iv) that covers the equipment used for metal cleaning processes if the process emissions are only released into the general in-plant environment.

Serviced rollers are re-assembled with ball bearings. The bearings are lubricated using the dispensing gun attached to Heritage Crystal Clean portable lubricant system that holds one gallon of lubricant at full capacity. The lubricating machine is set on cart and rolled around the workshop as needed. Cleaning, lubricating and hydraulic fluids come in small size containers. These processes met exempt status under exempt Rule 284(2)(a) & (c) covering containers,

reservoirs, or tanks used for ... (a) dipping or storage operations of coating objects with oils, waxes, greases or natural or synthetic resins containing no organic solvents; and (c) storage and surge capacity of lubricating, hydraulic, and thermal oils and indirect heat transfer fluids.

SMS was permitted to install and operate a chrome bath at the site under PTI# 135-17, and subject to MACT N in October 24, 2017. SMS stated the project scope definition amounted to high cost that the company did not find cost effective for installation. The project was scrapped, and the installation plan for the chrome equipment was abandoned.

SMS submitted copies of SDS for the chemicals used at the site as attached. The SDS was not properly sorted. The technician that provided the SDS turned in every copy of SDS that was found in the electronic file without sorting out which copies were valid and applicable to current operations. The SDS includes those covering spray paints used for touching up of finished metals on the site. Touching up painting is applied using an electric paint spray with HLVP efficiency gun. The list of paint used for touching up jobs at the SMS facility is attached indicating the operation met the exempt status under Rule 287(2)(c)(i) ... for the coating rate that is not more than 200 gallons, as applied, minus water, per month. [Attachment/Extended, pg. 4]. Records extracted from the facility bookkeeping indicated the paint use did not exceed 200 gallons per month.

SMS uses surfactant called Altrasol which is a proprietary blend, for metal pre-cleaning. AQD does not have adequate information to evaluate the blend solvent in order to determine appropriate regulatory requirement for the unit. The synthetic ester surfactant blend comes in a form of clear and colorless liquid with mild odor. The product boils at 500 F with vapor pressure 0.035 mm Hg @ 300 F and is described as thermally stable [SDS Attached KK]. There is no SDS assay listed for the cleaner to determine if the liquid qualifies as a cold cleaner or degreaser. The inspection established the cleaning was done at room temperature. In the overall, the precleaning unit met the exempt status under Rule 285(2)(r)(iv)(B) ... if the emissions are released inside the in-plant environment. This inspection was conducted to evaluate the compliance level of the facility with the Michigan air quality rules for metal surface cleaning and treating processes.

INSPECTION NARRATIVE:

I arrived at the facility address on May 15, 2019 at 1240 hours. Purpose of the visit was to conduct a scheduled compliance inspection of the metal surface treatment facility. Temperature at the hour was 64 F with wind speed 9 mph coming from the N, and humidity was 60%. I met Mr. Tom Gunnell, the plant manager of the company. Mr. Gunnell admitted me onto the site. We settled down to a pre-inspection interview. Mr. Gunnell informed no changes were made to the facility process with regards to operating conditions since 2006. The process was limited to polishing and cleaning of metal surface of CNC parts, and robotic welding of segments. We examined the equipment, and recordkeeping process for the operations. We concluded the inspection process with a post inspection conference. I left the area at 1420 hours.

PROCESS DESCRIPTION:

The SMS performs a mechanical metal surface repairs and finishing operation on CNC equipment segments used for steel milling. Sets of CNC milling segment are trucked into the workshop and disassembled. The steel rolling segments are sanded and shot blasted using steel balls. The processes use cyclone as control device and are also collectively regulated under Rule 285 (2)(l)(vi)(B). The exemption also covers the pre-metal surface finishing and cleaning. SMS captures all metal pieces that fall in the in-plant environment and particulates from the process using dust collector baghouses and recycles for profit.

SMS was permitted to install a chrome plating equipment in 2017 under the 40 CFR 63 Subpart N regulatory conditions. However, SMS informed the company abandoned the installation and

operation of the chrome plating equipment due to overbearing costs.

COMPLIANCE HISTORY:

There has not been any citizen complaint attributed to SMS operations.

REGULATORY SUMMARY:

Rule 201(1): The facility was exempt from Rule 201(1) under Rule 285(2)(l)(vi)(B); Rule 284(2)(a), &(c); and Rule 287(2)(j). SMS has not made any modification or change to the process or equipment since the last inspection in 2017.

MACT N: The SMS was in compliance with MACT requirements by default when the Company cancelled the installation of the chrome plating equipment. The MACT N requirements that regulate chrome plating addressed limiting chrome emissions to 0.007 mg/dscm gases with control devices, such as mist eliminators with scrubber or control of surface tension through chemical wetting agents, and maintenance of equipment via standard work practice. The requirements no longer apply to the facility. AQD did not use the SDS covering the electroplating chemicals to evaluate compliance since the process is no longer operated on the site. Other SDSs relating to relevant processes under operation were reviewed at the site and copies are attached.

Recordkeeping: The facility made a summary table of records kept and time schedules associated with gathering such records covering general reporting requirements. The reporting requirement summary sheets are attached.

Cold Cleaner

SMS operates a hand wash/hand cleaner that could not be identified as cold cleaner or degreaser by formula definition. Cold cleaners of the equipment size operated at the facility would be exempt from PTI requirements under the following R336.1285(2)(r)(iv): The rule should exempt the facility from the requirement to obtain a PTI as related to ... cold cleaners that have an air/vapor interface of not more than 10 square feet, whose emissions are discharged inside the in-plant environment. The SDS for the cleaning solvent did not provide adequate information for AQD to compare for qualification as a cold cleaner or blend of aqueous surfactants. Process of elimination of parameters concluded the unit was not a degreaser because it is operated at room temperature.

R336.1707(2) regulates new cold cleaners. SMS's cold cleaner should be exempt from this rule that states: - It is unlawful for a person to operate a new cold cleaner using a solvent having a Reid vapor pressure of more than 0.6 psia or heated above 120 degrees Fahrenheit, unless at least 1 of the following conditions is met: (a) The cold cleaner is designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. (b) The solvent bath is covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. (c) The cold cleaner is controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the department. The hand cleaner should satisfy the qualification for exempt from the condition by nature of its design dimensions and exhibition of vapor pressure of 0.035 mm Hg @ 300 F. SMS is not required to implement the (a), (b), or (c) conditions because the Altrasol Surfactant Cleaning Solvent has a vapor pressure of 0.035 mmHg (0.00068 psia), which is less than 0.6 psia. AQD could not determine the exact VOC content of the cleaner since it is a proprietary formulation.

R336.1707(3)(a): SMS complied with the condition that require a cover should be installed and closed whenever parts are not being handled in the cleaner. The cover should be mechanically assisted in any of the following situations: (i) The Reid vapor pressure of the solvent is more than

0.3 psia. (ii) The solvent is agitated. (iii) The solvent is heated. During the inspection the lid on the cold cleaner remains closed during operation of the equipment. The lid is mechanically assisted as required and the cleaner when agitated.

R336.1707(4):SMS complied with the condition that requires that written operational procedures should be posted in an accessible, conspicuous location near the cold cleaner. Operational procedures were posted in the cleaning area.

Shot Blaster

SMS operates a shot blaster for metal surface finishing. The shot blaster is operated in association with cyclone collector with baghouses for emissions discharged inside the in-plant environment. The dust collector is currently located inside the in-plant area for recycling of all metal emissions, hence the function of the equipment qualifies for exemption from PTI requirements under Rule R336.1285(2)(l)(vi)(B) ... that exempts equipment and any exhaust system or collector serving the equipment for...sand blast cleaning...metal cleaning...that has emissions that released only into the general in-plant environment.

Rule 301: There was no visible emission at the facility at the time of this inspection.

Rule 901: There was no nuisance incidents such as odors or fallout beyond boundary limits of the SMS facility or at the site or in operational vicinity during the inspection.

COMPLIANCE DETERMINATION:

The inspection of SMS was conducted, and recordkeeping was reviewed. The inspection determined the SMS operated in compliance with particulate emission regulatory requirements. SMS abandoned the installation of equipment permitted under PTI# 135-17. The permit is currently void.

NAME



DATE

9/5/2019

SUPERVISOR

