

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

N724138891

FACILITY: MetoKote Corp.		SRN / ID: N7241
LOCATION: 3001 Hollow Ridge Dr., EATON RAPIDS		DISTRICT: Lansing
CITY: EATON RAPIDS		COUNTY: EATON
CONTACT: Joe Limon , Plant Manager		ACTIVITY DATE: 02/22/2017
STAFF: Michelle Luplow	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled, unannounced inspection to determine compliance with general PTI 269-09 and PTI 74-03.		
RESOLVED COMPLAINTS:		

Inspected by: Michelle Luplow
Other AQD Staff Present: Sue Thelen, Permits Section

Personnel Present: Joe Limon, Plant Manager (jlimon@metokote.com)

Purpose

Conduct an unannounced scheduled compliance inspection of MetoKote by determining compliance with PTI 74-03 for an acetic acid tank (pretreatment of substrate) and PTI 269-09 a general permit for a natural gas-fired burnoff oven.

Facility Background/Regulatory Discussion

MetoKote was last inspected in March 2013. Joe Limon, Plant Manager, explained that Plant 10 of Meridian Magnesium Products of America is MetoKote. MetoKote prepares and coats magnesium auto parts (Ford F150 radiator support, Chrysler van lift gate, etc) produced at Meridian for Meridian. J. Limon said that the plant operates 2 8-hour shifts 5 days per week.

Inspection:

S. Thelen and I arrived at MetoKote at approximately 8:20 a.m. February 22, 2017 and met with Joe Limon. The entrance to Plant 10 is on the backside of the building (see attached map for actual location). I provided J. Limon with a 2017 Permit to Install Exemptions Handbook.

J. Limon said that the only changes that have been made to the plant since 2013 are adding an extension to the de-gas oven and increasing the line speed of the coating line from 8 ft/min to 10 ft/min.

PTI 74-03: Acetic Acid tank for the pretreatment of substrate with mist eliminator system

PTI 74-03 is for an acid tank that is used to clean and treat magnesium auto parts prior to coating. The Acetic acid tank (there is one 8,000 gallon tank) is not heated; it is kept at ambient temperature only. All are kept at ambient temperature. There is no device installed on this line to heat the tanks, therefore it is unnecessary to monitor the temperature of the tanks, even though it is required per the permit. The complete line (which includes acetic acid treatment and powder coating of the parts) is composed of 13 Stages (see attached photo for schematic):

(1) Alkali Spray Cleaner (removes oil) → (2) Alkali Immersion (temperature kept at 115-140F, allows for cleaner to get into the small crevices of the part) → (3) City water rinse spray → (4) City water immersion → (5) Acetic Acid Spray (2 sections) and immersion (1 bath) (opens up pores in metal to prep for primer/corrosion protectant) → (6) Deionized (DI) water spray → (7) DI water immersion → (8) Alodine immersion and spray (primer/corrosion protectant) → (9) DI water spray → (10) DI water immersion → (11) De-gas oven (removes impurities from metal, otherwise gas bubbles can form in the coating) → (12) Powder Coating (textured and satin finishes, one booth for each finish, 2 booths total) → (13) Curing oven

During the inspection, the de-gas oven was operating at 402°F and the cure oven was operating at 375°F.

The powder coating booths and its associated curing oven are exempt under Rule 287(2)(d). Both booths appear to be vented to the general in-plant environment, I did not observe any ventilation or stacks originating from these booths. (see attached photos for both booths)

The alkali surface treatment/cleaning portion of the process is exempt per Rule 285(2)(r)(i) [surface treatment] or (iv) [cleaning] because emissions are only released to the general in-plant environment (i.e. this portion of the process is not connected to the mist eliminator).

EU-ACIDTANK**Material Limits**

MetoKote is limited to the addition of 31,500 gallons of sulfuric acid and 31,500 gallons of acetic acid per 12-month rolling time period. MetoKote does not use sulfuric acid at this time. J. Limon provided me with a Chemical Usage Report (which

they use to for SARA Title V Reporting) from February 2016 through January 2017 containing pounds of glacial acetic acid used on specific dates throughout the year. The total amount of acetic acid used during this 12-month rolling period was 10,485 gallons (91,746 lbs/ (8.75 lb/gal)). MetoKote is in compliance with this material limit at this time. I will recommend to J. Limon that it may be easier to gather glacial acetic acid usage as a separate report and tabulate this data on a monthly basis, reporting the quantities used in gallons instead of pounds.

The concentration of acetic acid is limit to 12% by weight of the total tank solution. MetoKote is not required to calculate this out, but J. Limon said that the acetic acid solution is very weak, where only 1.5-2.0% of the solution is acetic acid. MetoKote meets this requirement.

Equipment

The mist eliminator system is required to be installed and operating properly and equipped with properly designed hooding and ductwork to control the emissions from the acid tank (see attached for photos of the mist eliminator system). J. Limon said that in order to ensure that the mist eliminator is operating when the entire system is operating they have installed a safe check which is connected to a switch on a pump that is connected to the mister. He said if the mister stops, the pump shuts the entire system down. He also said that the amount of water they push to the misters is calculated based on the acid usage. Based on this information MetoKote appears to be in compliance with mist eliminator operation and design requirements.

General PTI 269-09 Burnoff Oven with afterburner

PTI 269-09 is for a burnoff oven with afterburner. The unit is used to burn off the cured powder present on the racks as a result of the powder coating operations. The oven was not operating during the inspection. J. Limon said that each batch of racks remains in the oven for 3 hours. The burnoff oven is natural gas-fired and rated at 950,000 Btu/hr.

EUBURNOFF

Material Limits

MetoKote is not permitted to burn off any other materials than cured paints, oil or grease on metal parts/racks/and/or hangars. J. Limon explained that only the racks with cured powder coat paint are processed in the oven. MetoKote is in compliance with this condition.

Process/Operational Restrictions

MetoKote is not permitted to use EUBURNOFF for the thermal destruction or removal of rubber, plastics, uncured paints, or any other materials that contain sulfur or halogens, such as plastisol, PVC or Teflon. I was provided with the SDS (attached) for both the satin and textured powder coating paint and have verified, based on the composition presented in the SDS, that neither of these coatings contain these compounds.

Waste powder coating is also not allowed to be processed in this unit. Future inspections will verify what is done with all waste materials.

Equipment

The afterburner is required to be installed, maintained and operated in a satisfactory manner, where satisfactory operation includes maintaining a minimum of 1400°F in the afterburner. J. Limon said that Technical Maintenance Inc (TMI) calibrates the unit annually (as required under the permit's "Monitoring" requirements). The recent calibration I noted during the inspection was 1/9/2017, where TMI also documented that the next calibration was due 1/9/2018. This would currently ensure that the afterburner was being operated in a satisfactory manner by ensuring that the temperature readout was accurate. Additionally, J. Limon said that they keep spare parts: for example spare parts for the igniter are kept because they last ~1.5 years and MetoKote will change them every 6 months as part of their "predictive maintenance." The temperature is recorded on a continuous basis when the unit is running on a chart recorder (continuous monitoring is also required under the permit's "Monitoring" requirements), but there is also a digital readout display for the unit. He provided me with chart records from January and February 2017, which all indicated that temperatures were above 1400°F, consistently at ~1500°F (see attached photo for example of the chart record).

Recordkeeping/Reporting/Notification

MetoKote is required to keep records of the date, duration and description of any malfunction of the control equipment. J. Limon said that they have not had any malfunctions since putting EUBURNOFF into operation.

Other recordkeeping requirements have been addressed under Equipment.

Stack/Vent Restrictions

The exhaust gases from EUBURNOFF are to be discharged unobstructed vertically upwards to the ambient air with an exit point not less than 1.5 times the building height. Attached is a photo of the exterior burnoff oven with stack. From my vantage point it appeared that the stack was 1.5 times the stack of the burnoff oven building; however, although the stack was oriented vertically upwards, a raincap had been installed at the exit point of the stack. MetoKote is not meeting the general PTI requirement for the stack to be unobstructed. I have informed J. Limon that within 2 weeks of March 17, 2017 either the

raincap should be removed from the stack (verified by photo evidence), or the submittal of a site-specific Permit to Install for the burnoff oven be submitted to allow for an obstructed stack, otherwise a violation notice may be necessary.

I will provide a follow-up activity in MACES on what was decided and whether further actions are necessary.

Compliance Statement: MetoKote appears to be in compliance with PTI 74-03 and PTI 269-09 pending the stack determination.

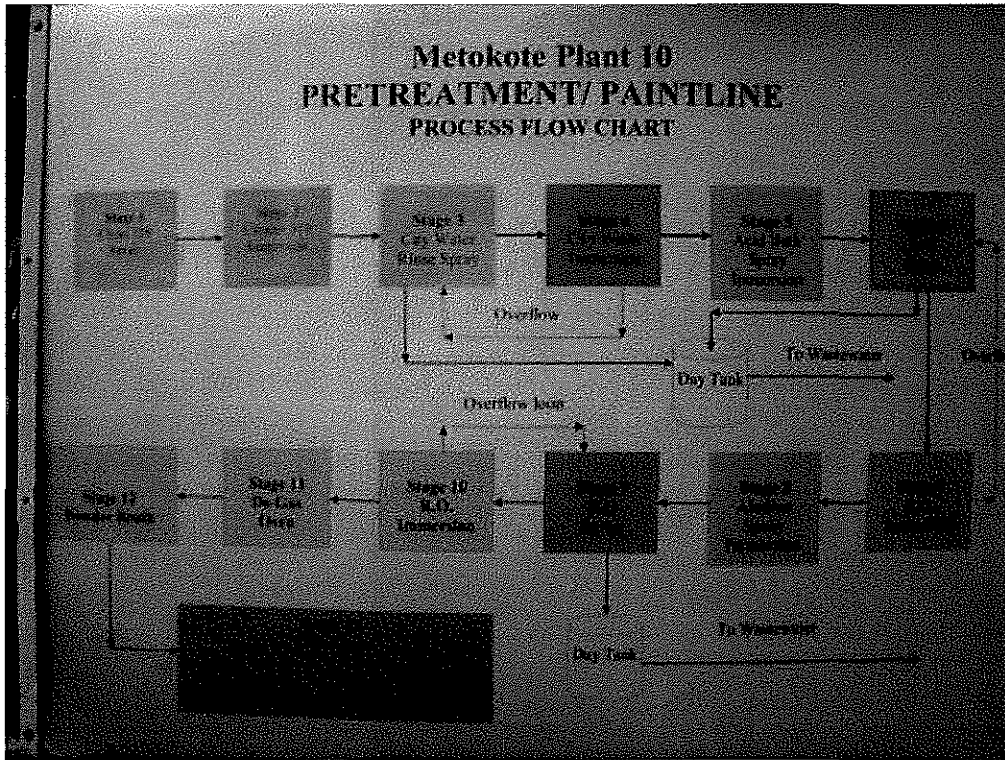


Image 1(Process Schematic) : 13-stage process flow chart for metal treatment through coating process.



Image 2(Satin Booth) : Satin Powder Coat booth. No stacks for venting to outside



Image 3(Textured Booth) : Textured Powder Coat booth. No stack connected to this booth.

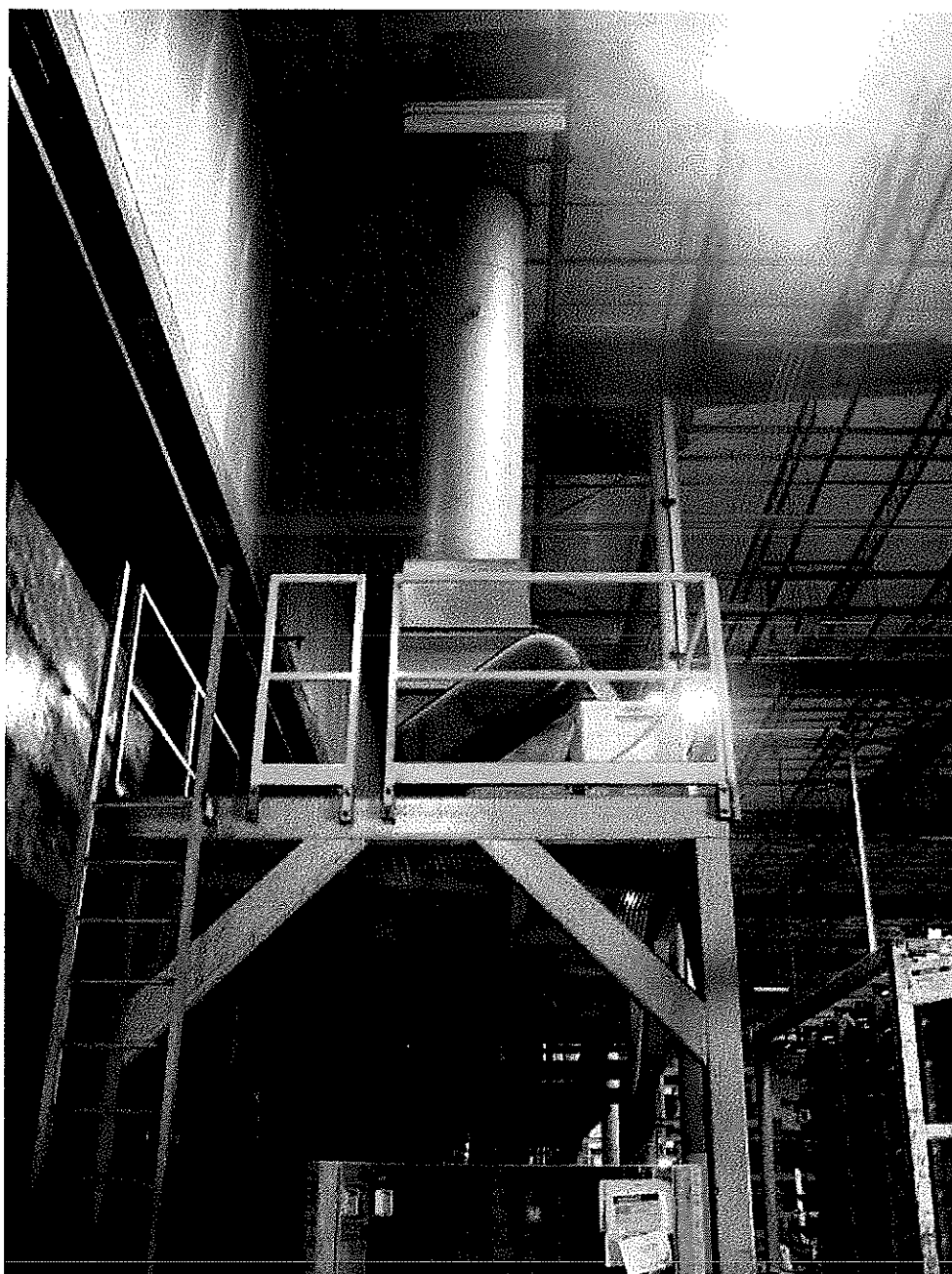


Image 4(Mist Eliminator) : Mist eliminator with stack, side view

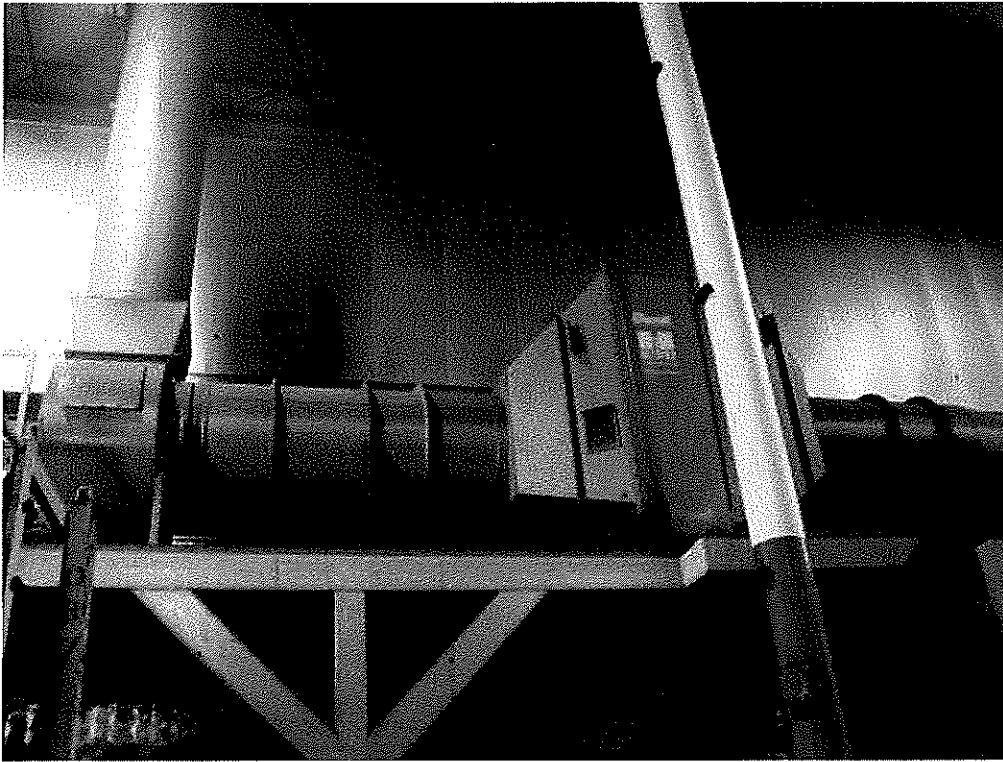


Image 5(MIst Eliminator) : Longitudinal view of mist eliminator system with stack

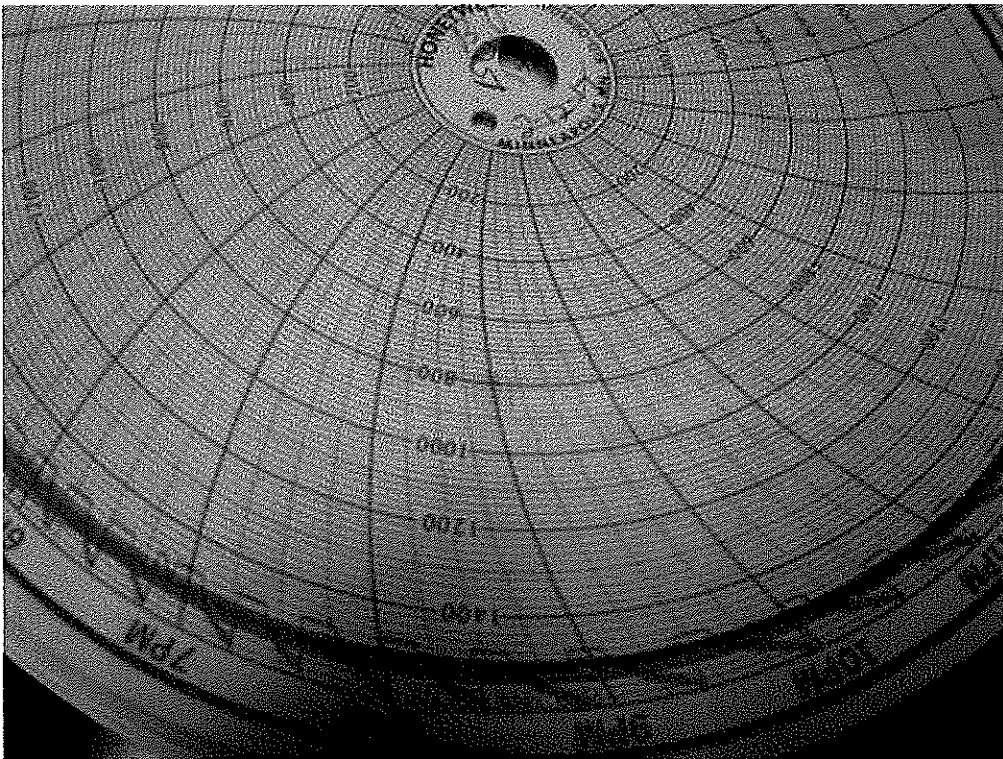


Image 6(Chart Recorder) : Continuous monitoring consistently at 1500F



Image 7(Burnoff Oven) : burnoff oven stack - note the raincap

NAME M. Williams

DATE 3/16/17

SUPERVISOR B. M.