



REGION 5

CHICAGO, IL 60604

MEMORANDUM

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Industrial Container Services – MI, LLC

FROM: Sasha Letuchy, Environmental Engineer
AECAB (MI/WI)

THRU: Sarah Marshall, Section Supervisor
AECAB (MI/WI)

TO: File

BASIC INFORMATION

Facility Name: Industrial Container Services – MI, LLC

Facility Location: 4336 Hansen Avenue SW, Grand Rapids, Michigan 49548

Date of Inspection: 4/3/2024

EPA Inspector(s):

1. Sasha Letuchy, Environmental Engineer
2. Manoj Patel, Environmental Engineer

Other Attendees:

1. April Lazzarro, Senior Environmental Quality Analyst, Air Quality Division, EGLE
2. Clay DeRonne, Environmental Quality Analyst, Air Quality Division, Technical Programs Unit (TPU), EGLE
3. David McDonald, Plant Manager, Mauser
4. David Boggard, EHS Manager – Midwest Region, Mauser
5. Peter Dipasca, Director, Environmental Compliance and Sustainability, Mauser
6. Douglas Glass, Maintenance Supervisor, Mauser
7. Kurt Maatan, Maintenance Technician Team Leader, Mauser
8. Doug Ryan, TRC

Contact Email Address: Peter.dipasca@mauserpackaging.com; David.boogaard@mauserpacking.com

Facility Name: Industrial Container Services – MI, LLC
Facility Location: 4336 Hansen Avenue SW, Grand Rapids, Michigan 49548
Date of Inspection: April 3, 2024

Purpose of Inspection: To oversee a stack test at the drum reclamation furnace required by EPA via a Section 114 Information Request issued on July 30, 2021

Facility Type: Drum refurbishing operations

Regulations Central to Inspection: Michigan State Implementation Plan

Arrival Time: 8:00 AM

Departure Time: 10:40 AM

Inspection Type:

- ☐ Unannounced Inspection
- ☒ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☒ Small Business Resource Information Sheet not provided. Reason: Previously Provided
- ☒ Provided CBI warning to facility

The following information was obtained verbally from facility personnel unless otherwise noted.

Process Description:

Portions of the process description were obtained from an August 17, 2018 inspection report summarizing EPA's June 20, 2018 inspection of the facility.

The facility receives open-head and tight-head drums that are RCRA empty and processes the drum through a drum furnace to remove residual materials. Then, the facility repairs, paints, and resells the containers.

The drum furnace consists of a refractory lined tunnel with multiple natural gas fired burners. At the inlet of the drum furnace, covers from the open head drums are removed, drums are inverted onto a conveyor, and lids are placed on top. The conveyor transports the drums and lids through the furnace where the heat removes residue and coatings on the drums and lids. The facility processes a maximum of 300 drums per hour.

Emissions from the drum furnace are routed to an afterburner, equipped with a large draft fan which pulls air from the furnace through the afterburner and exhaust it to atmosphere through a stack. The afterburner operates at a set point temperature of 1700 degrees F, meaning that the natural gas fired burners in the afterburner turn on if the temperature dips below 1700 degrees F. An air gap in the exhaust duct upstream of the induced draft fan allows ambient air to be drawn into the duct to reduce the temperature of the exhaust gas to protect the integrity of the fan.

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Four additional smaller fans are used in the system, including a dedicated exhaust fan drawing air from the drum furnace inlet enclosure and a dedicated exhaust fan drawing air from the drum furnace discharge enclosure both routed to the front of the afterburner.

The drum furnace contains an internal ash pit. During furnace operation, ash is directed into the ash pit. There is an access door from the outside. According to the stack test protocol, dated March 4, 2024, ash system enclosures are activated when ash is being removed from the furnace. According to the stack test protocol, the auxiliary hoods and induced draft fans are not required for successful furnace operation and will not be operated during emission testing.

Staff Interview:

Douglas Glass explained that there were five fans in the system, four of which were single speed. He stated that the fan associated with the auxiliary hood at the drum inlet was the only variable speed drive fan and it was operating at approximately 60 Hertz, which was its max during the test. The fan was replaced two weeks prior to the test and additional clean outs were conducted between the fan and the afterburner.

Kurt Maatan also explained that ducting was replaced in the past two years.

TOUR INFORMATION

EPA Toured the Facility: Yes

Data Collected and Observations:

EPA observed the first run of the stack test which was to be conducted in accordance with Methods 1, 2, 3A, 4 or Alt 320, EGLE 5B or 5C (later switched to 5), 18 Alt 320, 25/25A, and 204, according to the March 4, 2024 Stack Test Protocol. Doug Ryan showed EPA 18 natural draft openings in the enclosure and EPA walked around the enclosure to observe whether emissions were staying within the enclosure. EPA and EGLE observed smoke tube checks and noted that the smoke tube was being inserted into the opening. EPA identified positive pressure at the drum furnace inlet enclosure and at the ash pit access door enclosure and notified TRC and the facility of the issue. Doug Ryan confirmed that the enclosure did not meet Method 204 based on his periodic smoke tube checks.

EPA and EGLE reviewed the test port locations for the Method 5 and Method 25A. THC was measured by inserting a probe into the afterburner exhaust duct at an angle immediately upstream of the air gap. EGLE Technical Programs Unit (TPU) noted concerns with this location due to a lack of Method 1 compliance and the potential dilution of the gas stream at the air gap.

During the first run, EPA visited the control room to review afterburner temperature information and opacity information. The afterburner temperature was between 1695 – 1735 degrees F at 10:07 AM and opacity was less than 1%. The drum furnace inlet enclosure fan speed was 64.1 Hz. Fan speed information was not available on the remainder of the fans.

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Photos and/or Videos: were taken during the inspection and are listed in Appendix A.

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

During the closing conference, EPA discussed the following concerns with the facility:

- Enclosure did not meet Method 204 requirements, emissions observed at drum furnace inlet enclosure and at the ash pit access door enclosure bypassing the control system
- Method 25A port location inappropriate

Given the concerns, the limited number of containers collected by the company for the testing, and the limited amount of time available, run 2 and 3 of the stack test were cancelled. EPA, EGLE, and the company agreed to postpone the test until the concerns could be resolved.

Additional concerns were identified by EPA during the testing and following the inspection:

- Smoke tube was being inserted into the openings
- Fan operations inconsistent with stack test protocol
- THC concentration at the afterburner outlet was lower than expected

DIGITAL SIGNATURES

Report Author: ALEXANDR A LETUCHY
Digitally signed by ALEXANDRA LETUCHY
Date: 2024.05.20 09:17:16 -05'00'

Section Supervisor: SARAH MARSHALL
Digitally signed by SARAH MARSHALL
Date: 2024.05.20 09:20:54 -05'00'

APPENDICES

1. Appendix A: Digital Image Log and Digital Video Log

Facility Name: Industrial Container Services – MI, LLC
Facility Location: 4336 Hansen Avenue SW, Grand Rapids, Michigan 49548
Date of Inspection: April 3, 2024

APPENDIX A: DIGITAL IMAGE LOG AND DIGITAL VIDEO LOG

Inspector Name: Manoj Patel (Canon)
Sasha Letuchy (FLIR)

Archival Record Location: Electronic Records Center

Image Number	File Name	Date and Time (incl. Time zone and DST)*	Description of Image
1	P4020195.JPG	4/3/2024 – 9:14 AM	Drum furnace inlet enclosure, visible emissions escaping PTE
2	P4020196.JPG	4/3/2024 – 9:14 AM	Drum furnace inlet enclosure, visible emissions escaping PTE
3	P4020197.JPG	4/3/2024 – 9:14 AM	Drum furnace inlet enclosure, visible emissions escaping PTE
4	P4020198.JPG	4/3/2024 – 9:15 AM	Drum furnace inlet enclosure, visible emissions escaping PTE
5	P4020199.JPG	4/3/2024 – 9:15 AM	Drum furnace inlet enclosure, visible emissions escaping PTE
6	P4020200.JPG	4/3/2024 – 9:15 AM	Drum inlet
7	P4020201.JPG	4/3/2024 – 9:16 AM	TRC conducting smoke tube tests
8	P4020202.JPG	4/3/2024 – 9:17 AM	Ash pit access door enclosure, visible emissions escaping PTE
9	P4020203.JPG	4/3/2024 – 9:23 AM	Ash pit access door enclosure, visible emissions escaping PTE
10	P4020204.JPG	4/3/2024 – 9:23 AM	Ash pit access door enclosure, visible emissions escaping PTE
11	P4020205.JPG	4/3/2024 – 9:48 AM	Air gap with probe
12	P4020206.JPG	4/3/2024 – 10:06 AM	Control room temperatures
13	FLIR0131.JPG	4/3/2024 – 9:43 AM	Ash pit access door enclosure, visible emissions escaping PTE
14	FLIR0132.JPG	4/3/2024 – 9:44 AM	Ash pit access door enclosure, emissions escaping PTE
15	FLIR0133.JPG	4/3/2024 – 9:45 AM	Drum furnace inlet enclosure, visible emissions escaping PTE

*EPA corrected time stamps for the .JPG files. The information in the metadata was inaccurate.