



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604**

DATE: 9/13/2021

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Global Material Technologies, Chicago, Illinois

FROM: Brianna Fenzl, Environmental Engineer
AECAB (IL/IN)

THRU: Nathan Frank, Section Chief
AECAB (IL/IN)

TO: File

BASIC INFORMATION

Facility Name: Global Material Technologies

Facility Location: 2825 W 31st Street, Chicago, Illinois 60623

Date of Inspection: July 15, 2021

EPA Inspector(s):

1. Brianna Fenzl, Environmental Engineer
2. Daniel Heins, Environmental Specialist

Other Attendees:

1. Frank Krejsa, Quality and Regulatory Manager

Contact Email Address: frankkjr@gmt-inc.com

Purpose of Inspection: Compliance with Clean Air Act and permit requirements

Facility Type: Metal shavings products manufacturer

Arrival Time: 11:30 AM

Departure Time: 12:45 PM

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

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

The following information was obtained verbally from Global Material Technologies unless otherwise noted.

Process Description:

Global Material Technologies produces metal shaving products such as soap pads, hand pads, brake fibers, and rodent pads.

The process begins by shaving low carbon steel wire into steel wool. The shaved steel is then cut and balled up. For soap pads, they are then impregnated with soap. The soap impregnation system has a hood with air filters, that is then vented to atmosphere. Once the steel wool balls are impregnated with soap, they are sent to the drying oven for approximately 40 minutes.

The drying oven system vents to the thermal oxidizer. The thermal oxidizer on site is run continuously through the first and second shift and is down during the third shift. There are daily checks and monthly reports generated on the thermal oxidizer. There is a running spreadsheet for the thermal oxidizer recording the hours of operation and emissions. The set point on the thermal oxidizer is 1600 degrees Fahrenheit.

Final soap pads are then packaged, pelletized, and stamped with a barcode. Final products are shipped out on a daily basis. Products not shipped out are stored onsite.

Global Material Technologies does not own any trucks or their own fleet, all shipments are through other companies.

For the soap pads, soap is made approximately every 2 days by a 3–4-hour process.

Staff Interview:

Global Material Technologies has been at this location for 120 years and have had the same name for 45 years.

The thermal oxidizer was installed in 2007, there is no known performance test on the system.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:

During the walkthrough, EPA observed the soap impregnation system, shown in photos 1 and 2, in Appendix A. There were holes in the hood, with steam venting out to atmosphere Video 1 shows the system as a whole.

EPA observed uncaptured emissions on dryer 2. Photos 3-5 display the dryer vents, with photos 6 and 7 showing one of the entire dryers.

EPA viewed the thermal oxidizer and the temperature reading. The thermal oxidizer temperature was measured at 1606 degrees Fahrenheit.

Photos and/or Videos: were taken during the inspection.

RECORDS REVIEW

1. Lifetime operating permit, 2007

CLOSING CONFERENCE

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

Requested documents:

- Lifetime operating permit, 2007
- Most recent thermal oxidizer monthly report
- Most recent emissions calculations

Concerns: Uncaptured emissions from dryer oven 2.

DIGITAL SIGNATURES

9/13/2021

X Brianna Fenzl

Brianna Fenzl
Environmental Engineer
Signed by: BRIANNA FENZL

X **NATHAN
FRANK** Digitally signed by
NATHAN FRANK
Date: 2021.09.15
16:28:06 -05'00'

Nathan Frank
Section Chief

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APPENDICES AND ATTACHMENTS

Appendix A: Digital Image Log

Appendix B: Digital Video Log

Facility Name: Global Material Technologies
Facility Location: 2825 W 31st Street, Chicago, Illinois 60623
Date of Inspection: July 15, 2021

APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: Daniel Heins	2. Archival Record Location: <i>Electronic Record Center File</i>
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Image Number	File Name	Date and Time (EST)	Description of Image
1	IMG_0002.JPG	7/15/2021, 1:26 PM	Soap Impregnation System
2	IMG_0003.JPG	7/15/2021, 1:27 PM	Soap Impregnation Hood
3	IMG_0004.JPG	7/15/2021, 1:29 PM	Dryer Oven Vent
4	IMG_0005.JPG	7/15/2021, 1:30 PM	Dryer Oven Vent
5	IMG_0006.JPG	7/15/2021, 1:30 PM	Dryer Oven Vent
6	IMG_0007.JPG	7/15/2021, 1:31 PM	Dryer Oven
7	IMG_0008.JPG	7/15/2021, 1:32 PM	Dryer Oven

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APPENDIX B: DIGITAL VIDEO LOG

1. Inspector Name: Daniel Heins	2. Archival Record Location: <i>Electronic Record Center File</i>
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Video Number	File Name	Date and Time (EST)	Description of Image
1	MVI_0001.AVI	7/15/21, 12:26 PM	Drying Oven Vent