



**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

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**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

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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'

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Nathan Frank  
Section Chief

**Facility Name:** Global Material Technologies

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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**

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