



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

DATE: OCT 30 2018
SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Vulcan Global Manufacturing Solutions Inc., Milwaukee, Wisconsin
FROM: David Sutlin, Environmental Engineer
AECAB (MN/OH)
THRU: Brian Dickens, Section Chief
AECAB (MN/OH)
TO: File

BASIC INFORMATION

Facility Name: Vulcan Global Manufacturing Solutions Inc.

Facility Location: 1400 Pierce Street, Milwaukee, Wisconsin

Date of Inspection: October 15, 2018

EPA Inspector(s):

1. David Sutlin, Environmental Engineer
2. Dakota Prentice, Environmental Engineer

Other Attendees

1. Fred Korablean, Vulcan, EHS Manager
2. David De Jesus, Vulcan, Vice President of Operations/General Manager

Contact Email Address: fkrablean@vulcangms.com

Purpose of Inspection: To determine compliance with Vulcan's operating permit and applicable federal regulations

Facility Type: Lead Foundry

Regulations Central to Inspection: 40 CFR Part 63, Subpart ZZZZZZ - National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries

Arrival Time: 10:00 AM

Departure Time: 12:15 PM

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Credentials Presented
- ☒ CBI warning to facility provided

The following information was obtained verbally from Mr. Krablean and Mr. De Jesus unless otherwise noted.

Process Description:

The facility produces various lead parts used in radiation shielding applications for medical and security equipment, as well as lead parts used as counter weights in various applications. Lead ingots, and reclaimed lead chips from Vulcan's machining operations are continuously charged into natural gas fired pots and melted at 800°F. Small amounts of antimony, bismuth, and zinc are added to the melt to meet certain lead alloy specifications. Melt pot dross is skimmed off the top of the molten lead with a rake, and the purified lead or lead alloy is then either hand-ladled and poured into steel molds to produce castings of various shapes, or pumped to extrusion or injection molding processes. The cooled pieces are then transferred to onsite machining centers or shipped out.

Staff Interview:

The facility's output consists of roughly 70% castings and 30% extrusions. Melting, casting/die-casting, extruding, and machining operations take place at each of the facility's two buildings – one at 1400 Pierce Street (Building #1) and the other across the street at 1517 Pierce Street (Building #2). Building #1 houses eight melt pots, including five each with a capacity of 10,000 lbs. and three smaller pots. Emissions from the pots are exhausted to a Torit 72-cartridge dust collector with a rating of 24,249 ACFM, installed in 1992. Building #2 houses four melt pots, including two which are integrated into injection molding units. Emissions from the pots are exhausted to a Torit 24-cartridge dust collector with a rating of 6,607 ACFM, installed in 2002. Each dust collector's differential pressure is monitored and recorded once per shift and leak tested with florescent dye annually. Less than a single 55-gallon drum of dust is collected annually from each baghouse.

TOUR INFORMATION

EPA toured the facility: Yes

Data Collected and Observations:

At Building #1, EPA observed lead melt being ladled from one of the pots and poured into molds. No activity was occurring at several other pots though these were either unenclosed or partially enclosed. Visible emissions were observed being drawn into the overhead hood at one pot. At Building #2, the differential pressure meter for the dust collector read 3" of water column. At each building, EPA observed a roof opening with an exhaust fan.

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

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE**Requested documents:**

- 2009 Stack tests of both dust collectors
- Capacity and age of each dust collector

SIGNATURES

Report Author: _____

Date: _____

Section Chief: _____

Date: _____

Facility Name: Vulcan Global Manufacturing Solutions Inc.
Facility Location: 1400 Pierce Street, Milwaukee, Wisconsin
Date of Inspection: October 15, 2018

APPENDICES AND ATTACHMENTS

Appendix A: Digital Image Log

Contains Items Claimed as CBI – Non-Releasable

Facility Name: Vulcan Global Manufacturing Solutions Inc.

Facility Location: 1400 Pierce Street, Milwaukee, Wisconsin

Date of Inspection: October 15, 2018

CONFIDENTIAL BUSINESS INFORMATION ATTACHMENT

Facility Name: Vulcan Global Manufacturing Solutions Inc.

Facility Location: 1400 Pierce Street, Milwaukee, Wisconsin

Date of Inspection: October 15, 2018

The written inspection notes contain CBI.

Facility Name: Vulcan Global Manufacturing Solutions Inc.
Facility Location: 1400 Pierce Street, Milwaukee, Wisconsin
Date of Inspection: October 15, 2018

APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: David Sutlin	2. Date(s) of Inspection: October 15, 2018
3. Company/Facility Name: Vulcan Global Manufacturing Solutions Inc.	4. Street Address, City, State: 1400 Pierce Street, Milwaukee, Wisconsin
5. Number of Images: 6	6. Archival Record Location: CD-R Labeled as "10-15-18 Inspection; Vulcan Global Solutions; Milwaukee, WI; Photos"

Image Number	File Name	Date and Time (incl. time zone and DST)	Description of Image
1	PA150001.JPG	10/15/2018 12:31	3% Antimony Lead Pot
2	PA150002.JPG	10/15/2018 12:32	6% Antimony Lead Pot
3	PA150003.JPG	10/15/2018 12:32	Partially closed lead pot
4	PA150004.JPG	10/15/2018 12:35	Roof exhaust at 1400 W Pierce building
5	PA150005.JPG	10/15/2018 12:43	Splatter marks on ceiling above pot with melt pump
6	PA150006.JPG	10/15/2018 12:52	Roof exhaust at 1517 W Pierce building