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

DATE: 07/27/2021

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Imperial Zinc Corporation, Chicago, IL 60628

FROM: Karyn DeFranco, Inspector
AECAB (MN/OH)

THRU: Brian Dickens, Section Chief
AECAB (MN/OH)

TO: File

BASIC INFORMATION

Facility Name: Imperial Zinc Corporation

Facility Location: 1031 East 103rd Street, Chicago, IL 60628

Date of Inspection: 06/28/2021

EPA Inspector(s):
1. Karyn DeFranco, Inspector
2. Karina Kuc, Inspector

Other Attendees:
1. David Goss, General Manager of Imperial Zinc Corporation
2. Douglas Bushnell, Maintenance Manager of Imperial Zinc Corporation

Contact Email Address: dgoss@imperialzinc.com

Purpose of Inspection: To investigate compliance with the Lifetime Operating Permit and investigate compliance with the NESHAP for Secondary Nonferrous Metals Processing Area Sources.

Facility Type: Secondary Zinc Processing and Zinc Smelting

Regulations Central to Inspection: 40 C.F.R. Part 63 Subparts A and TTTTTT

Arrival Time: June 28th, 2021, 8:45 AM
Departure Time: June 28th, 2021, 9:42 AM

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:
☒ Provided CBI warning to facility

The following information was obtained verbally from Imperial Zinc Corporation (Imperial Zinc) unless otherwise noted.

Process Description:
Imperial Zinc operates a secondary zinc smelting facility. Imperial Zinc makes ingots and zinc anodes and processes customer scrap metal. Imperial zinc makes ingots by melting pure zinc, adding aluminum or copper alloy, and forming the molten metal into bars. Imperial Zinc makes zinc anodes by melting pure zinc and re-pouring the molten zinc into the desired shape. Imperial zinc also processes customer scrap alloy by melting the scrap, adding flux to dry it out and re-pouring the molten metal.

Staff Interview:
Imperial Zinc currently has approximately 50 employees and typically run two shifts per day, five days per week. Imperial Zinc has 13 furnaces, seven primary furnaces and six scrap pots, as well as four kettles for alloy.

Primary furnaces are vented directly to the stack. Primary zinc furnaces are full 24/7 and kept molten, with temperatures lowered slightly when the facility is not operating. The kettles are run in batches, with at least one or two kettles running each day of operation. Kettle emissions are vented directly to the atmosphere. Imperial Zinc has one baghouse that vents dust from the Zinc Scrap Processing Area and scrap pots. The Zinc Scrap Processing area has pickup points between scrap pots where dust from the scrap process is vented to the baghouse. The baghouse differential pressure is monitored once or twice per day and the baghouse is replaced approximately every three or four years.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:
EPA toured the facility. EPA inspected process areas, emission vents from units, and the baghouse. EPA saw fugitive emissions from the scrap pots.

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

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

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

Requested documents:

- Metals throughput (zinc, aluminum, copper, and scrap), 2019 through present;
- A copy of the most recent stack test for the baghouse;
- Emissions calculation spreadsheet, 2019 through present;
- IEPA AER reports, 2019 and 2020; and
- Daily baghouse readings and logs, May and June 2021.

DIGITAL SIGNATURES

Report Author: KARYN DEFRANCO Digitally signed by KARYN DEFRANCO Date: 2021.07.26 14:11:13 -05'00'

Section Chief: _____

APPENDICES AND ATTACHMENTS

1. Appendix A: Digital Image Log

Contains Items Claimed as CBI – Non-Releasable
Facility Name: Imperial Zinc Corporation
Facility Location: 1031 East 103rd Street, Chicago, IL 60628
Date of Inspection: June 28, 2021

CONFIDENTIAL BUSINESS INFORMATION ATTACHMENT

NONE

APPENDIX A: DIGITAL IMAGE LOG

1. **Inspector Name:** Karina Kuc	2. **Archival Record Location:** *C:\Users\kdefranc\OneDrive - Environmental Protection Agency (EPA)\Misc\Community Group\SE Chicago 2021\062821 Inspections\Imperial Zinc\062821 Inspection Photos*

Image Number	File Name	Date and Time (incl. Time zone and DST)	Description of Image
1	IMG_0004.JPG	2021:06:28 10:33:10	Zinc Scrap Processing Area
2	IMG_0005.JPG	2021:06:28 10:33:18	Zinc Scrap Processing scrap pot and ducts
3	IMG_0006.JPG	2021:06:28 10:33:26	Zinc loading to kettles for alloy
4	IMG_0007.JPG	2021:06:28 10:39:35	Zinc scrap pot and emissions
5	IMG_0008.JPG	2021:06:28 10:39:52	Zinc scrap pot and fugitive emissions