



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

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Metal Management Midwest, Inc., Chicago, Illinois

FROM: Karina Kuc, Environmental Engineer
AECAB (IL/IN)

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

TO: File

BASIC INFORMATION

Facility Name: Metal Management Midwest, Inc. doing business as Sims

Facility Location: 2500 S Paulina St, Chicago, IL 60608

Date of Inspection: October 4, 2022

EPA Inspector(s):

1. Karina Kuc, Environmental Engineer
2. Allison Smalley, Physical Scientist

Other Attendees:

1. Kevin Mattison, Illinois EPA
2. Chris Daniels, Environmental Health and Safety (EHS) Specialist, Sims
3. Sam Flores, Shredder Manager, Sims
4. Theodore Moore, Metal Recovery Plant (MRP) Manager, Sims
5. Deborah Hays, EHS Partner, Sims (present for tour and closing only)
6. Maria Medina, Ferrous Plant Manager, Sims (tour only)

Contact Email Address: Debbie.Hays@simsmm.com

Purpose of Inspection: to follow up on a citizen complaint and inspect recently installed monitoring equipment

Facility Type: metal shredding, recycling and shipping

Regulations Central to Inspection: Illinois State Implementation Plan (SIP) provisions and the facility's construction permit

Arrival Time: 8:40 AM

Departure Time: 11:05 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: previously provided
- Provided CBI warning to facility

The following information was obtained verbally from Sims representatives unless otherwise noted.

Process Description: Metal Management Midwest, Inc., doing business as Sims (Sims or the facility), purchases and shreds scrap metal, then sorts and ships the final product. Most scrap, purchased from industrial suppliers, comes in by truck, is weighed and inspected. Sims also accepts scrap metal from peddlers. Non-conforming objects such as gas cylinders, are pulled out. Depolluted vehicles are purchased from companies that have a "license to junk." Sims occasionally accepts vehicles from the public if they have a title. Sims has capability to depollute vehicles on site (i.e. remove gas tank, fluids, freon, battery, and mercury switches).

Sims shreds approximately 70% light iron and 30% vehicles at a rate of 180 to 190 tons per hour for approximately 8 hours per day. The material is shredded and then goes through the ferrous separator where it is separated into ferrous, dirty non-ferrous, and automotive shredder residue. The ferrous shred is a final product and can be loaded out by truck or barge. The dirty non-ferrous material goes to the Metal Recovery Plant and automotive shredder residue is stockpiled to be sent to the landfill.

At the Metal Recovery Plant, dirty non-ferrous material goes through wind sorting to remove waste, then eddy currents to remove the non-ferrous material, and finally air sorters to sort by size. The final product is zorba, a mix of aluminum, copper and brass. In the warehouse, metal is sorted and prepared for shipment.

The shipping yard is located on the south side of the property where final product is loaded out by barge, railcar or truck. The water truck sprays the loads with water as they are being loaded onto barges to suppress dust. Two mobile shears and one stationary shear are used to cut thick

pieces of metal down to specification. The stationary shear has been located at the shipping yard for approximately two years.

Staff Interview: The shredder operates from about 6 AM to 4 PM Monday through Friday and 6 AM to 12 PM on Saturday if they are running. A foaming agent is applied at the shredder to suppress dust. The facility currently has three water misters and is in the process of installing two more. In total, there will be two misters at the Metal Recovery Plant and three at the shredder. The water misters were installed as part of Sims' Best Management Practices for dust minimization. They cannot be utilized in freezing temperatures. Two water trucks drive around the facility and spray down the roads to suppress dust. Sims is in the process of building an enclosure with a roof to store waste bound for the landfill, in accordance with City of Chicago Rules for Large Recycling Facilities.

On September 23, 2022, Sims began air monitoring and sampling in accordance to US EPA's Information Request dated April 21, 2022. Sims works with an environmental consultant, Trinity, to maintain the monitors and collect the samples.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations: EPA observed the shredder, Metal Recovery Plant, landfill stockpile enclosure, shipping yard, and five monitoring stations. While the shredder was running, EPA observed steam coming from the shredder and mist coming from the water mister located above the shredder. The Metal Recovery Plant was down for scheduled maintenance. The stationary shear, noted as a concern by a citizen, was observed on the south side of the property at the shipping yard. Due to electrical issues, the stationary shear was not running.

Three monitors are located around the shredder, on the north (AQ1), east (AQ2), and west (AQ3) sides. Two monitors are located at the shipping yard, at the southeast (AQ4) and southwest (AQ5) corners of the property. Volatile Organic Compound samples are collocated at the east, north and southwest monitors. Each monitoring station is equipped with a camera. In case of a spike in particulate matter (PM) readings, the recordings will be used to identify the source of dust. In accordance with the PM Dust Monitoring Plan submitted by Sims, for the east monitoring station (AQ2), “[t]o limit the influence of obstructions adjacent to the site, this station will be placed on an elevated platform. The distance of the inlet of the PM samplers to the adjacent building will be at least twice the differential from the inlet to the top of the building.” The PM inlet was observed to be approximately 6 feet from the ground and was not placed on an elevated platform.

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:

- SDS for foaming agent applied in shredder
- Shipments for last six months
- Shredder throughputs for last three years

Compliance Assistance: Sims should discuss with IEPA whether the stationary shear should be included in the facility's permit application

Areas of Concern: The east monitor (AQ2) PM inlet should be elevated to comply with the PM Dust Monitoring Plan and to avoid any impacts from the adjacent building

DIGITAL SIGNATURES

Report Author: _____

Section Supervisor: _____

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APPENDICES AND ATTACHMENTS

Appendix A – Digital Image Log

Facility Name: Metal Management Midwest, Inc.

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APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: Karina Kuc	2. Archival Record Location: Region 5 Electronic Records Center
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Image Number	File Name	*Date and Time (Central Time)	Description of Image
1	PA040001.JPG	2022:10:04 09:45:38	Ferrous "shred" pile from shredder
2	PA040002.JPG	2022:10:04 09:53:54	North monitoring station and meteorological station
3	PA040003.JPG	2022:10:04 09:53:57	Meteorological station
4	PA040004.JPG	2022:10:04 09:58:52	Shredder and piles of scrap ready to be shredded
5	PA040005.JPG	2022:10:04 09:59:04	Steam emitting from shredder on left and mist created by mister on right
6	PA040006.JPG	2022:10:04 10:03:40	East monitoring station
7	PA040007.JPG	2022:10:04 10:06:09	East monitoring station sampling schedule
8	PA040008.JPG	2022:10:04 10:06:53	Ferrous separator
9	PA040009.JPG	2022:10:04 10:07:34	Dirty non-ferrous pile from ferrous separator
10	PA040010.JPG	2022:10:04 10:09:23	Ferrous "shred" pile from ferrous separator
11	PA040011.JPG	2022:10:04 10:12:18	West monitoring station
12	PA040012.JPG	2022:10:04 10:16:46	Metal Recovery Plant
13	PA040013.JPG	2022:10:04 10:22:10	Stockpile of dirty non-ferrous to be processed in Metal Recovery Plant
14	PA040014.JPG	2022:10:04 10:23:19	Current landfill stockpile area
15	PA040015.JPG	2022:10:04 10:23:22	Current landfill stockpile area
16	PA040016.JPG	2022:10:04 10:24:36	New enclosure being built which will serve as a landfill stockpile area

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Image Number	File Name	*Date and Time (Central Time)	Description of Image
17	PA040017.JPG	2022:10:04 10:24:41	Current landfill stockpile area
18	PA040018.JPG	2022:10:04 10:28:24	Southeast monitoring station
19	PA040019.JPG	2022:10:04 10:28:34	Southeast monitoring station
20	PA040020.JPG	2022:10:04 10:38:12	Southwest monitoring station
21	PA040021.JPG	2022:10:04 10:42:18	Stationary shears
22	PA040022.JPG	2022:10:04 10:43:04	Closer view of stationary shears
23	PA040023.JPG	2022:10:04 10:45:28	Mobile shears
24	PA040024.JPG	2022:10:04 10:47:00	Mobile shears
25	PA040025.JPG	2022:10:04 10:53:46	View of shredder from south - mist on the left and steam on the right

Note: *times have been corrected to reflect Central Time. Timestamps on photos are an hour earlier.