



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

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Alter Trading Corporation, Milwaukee, WI

FROM: Laura Steel, Environmental Engineer
AECAB (MI/WI)

THRU: Sarah Marshall, Section Supervisor
AECAB (MI/WI)

TO: File

BASIC INFORMATION

Facility Name: Alter Trading Corporation – Milwaukee (Alter)

Facility Location: 1640 W Bruce Street, Milwaukee, WI 53204

Date of Inspection: February 4, 2022

EPA Inspector(s):

1. Emma Leeds, Environmental Engineer
2. David Sutlin, Environmental Engineer
3. Laura Steel, Environmental Engineer (Student Trainee)

Other Attendees:

1. Adam Gahr, Facility Manager - Alter
2. Darren Engbring, Environmental Health and Safety Manager - Alter
3. Chris Berray, Environmental Technician – Alter
4. Damon Hassel, Shredder Manager – Alter
5. Mark Joyner, Regional Director of Operations - Alter

Contact Email Address: Darren.engbring@altertrading.com

Purpose of Inspection: To assess the facility's compliance with its current permit, the Clean Air Act, and the Wisconsin State Implementation Plan (SIP)

Facility Type: Ferrous and Non-ferrous Alloys Metal Recycling and Shredding Facility

Regulations Central to Inspection: Protection of Stratospheric Ozone through Emissions Reductions in the Refrigerant Recycling Process at 40 C.F.R. Part 82, Subpart F; Wisconsin SIP

Arrival Time: 9:50 AM CST
Departure Time: 1:20 PM CST

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.
- ☒ CBI warning provided to facility

The following information was obtained verbally from Alter personnel unless otherwise noted.

Process Description:

The Alter Trading Corporation – Milwaukee facility (the Milwaukee facility) primarily accepts auto bodies, steel clips, any non-ferrous metal, and sheet iron (including appliances and other post-consumer items) from both commercial vendors and peddlers. All incoming scrap is weighed at the facility's supplier entrance, scanned with a radiation detector, and undergoes a preliminary inspection where the inspector determines if the material is ferrous or non-ferrous. Ferrous and non-ferrous materials are processed in different "zones", with non-ferrous material processed on the east side of the facility and ferrous material processed on the west side. The material is then dumped and inspected a second time for materials that Alter describes as "non-conforming", such as chemical tanks and loose tires ("not shreddable items"), and contaminants to alloys. The conforming ferrous material is separated from other material and fed to a 6000 hp shredder. Auto shredder residue (ASR) from the shredding process is sent to the Zorba plant, which uses an electromagnet to recover non-ferrous material from fluff. Non-ferrous material is inspected, sorted, inventoried, sent through a baler, and shipped to the end customer.

Prior to shredding, auto bodies are dropped off at the "de-man area". Some commercial customers process auto bodies before bringing them to the Milwaukee facility, including recovering refrigerant; however, Alter personnel pressure test each refrigerant tank to see if refrigerant still remains. Processed vehicles without refrigerant are sent straight to the shredder. For the remaining vehicles, vehicle identification numbers (VIN) are checked, batteries are removed, refrigerant is recovered, mercury switches are removed, and then the car is elevated for gasoline removal. Recovered refrigerant is stored in 50 pound cylinders and picked up by a manifested refrigerant disposal company as needed. Approx. 20-26 vehicles per day are processed at a rate of 45 minutes per vehicle.

Staff Interviews:

The Alter Milwaukee receiving hours are Monday – Friday from 7 AM – 7 PM, and the shredder runs Monday – Friday from 6 AM – 6 PM. The Milwaukee facility currently has 81 employees and has been in operation since the late 1800s.

Scrap inspectors are trained annually on how to look for non-conformances in scrap loads, which include refrigerators from one-time peddlers, and relocate these items to a "set down lot" for storage before pickup from their supplier. The facility maintains a spreadsheet with their daily production amount which is approximately 0.60-1.17 tons/day. The shredder temperature and air flow are not monitored.

Appliances that contain refrigerant are not currently accepted at the facility. White goods, compressors, and condensers are accepted only from commercial suppliers under refrigerant recovery contracts known as the FEMS Material Supplier Certification (FEMS contract), which is established between an Alter account executive and the supplier. The FEMS contract for each customer is checked at the supplier entrance and states if the supplier will drop off vehicles and/or appliances with the refrigerant already recovered. No FEMS documentation is required for non-ferrous materials that previously contained refrigerant. An on-site refrigerant recovery program for appliances existed for several months approximately 1 year ago, in which appliances containing refrigerant were accepted and Alter recovered the refrigerant on-site. The facility state that it did not and does not accept appliances with cut lines.

The shredder typically runs at 200 – 210 tons per hour. Approximately 25-50 FEM contracted (sheet iron with appliances and car bodies) loads are shredded each day, and 20 of these loads contain solely car bodies with 15-18 flattened cars/load. The average car age accepted at the facility is from 2008 to 2009, which contain more plastic than newer cars. Auto bodies and light iron are fed into the shredder together, and steel clips are fed separately. Car bodies are fed alone only if the facility is performing a recovery test to determine ASR percentages. All material is weighed after shredding. Water spray is injected into the shredder from both sides at 10-40 gal/min. Mr. Engbring stated that the physical maximum physical capacity of the shredder is 250 tons per hour. There is a capture hood on the west side of the infeed to the shredder and one directly over the shredder that exhaust to a particulate matter control system consisting of a cyclone, venturi scrubber, and aerosol filtration system. Ampere readings on the control system's fan motors and the scrubber pump are monitored, and temperature and air flow are not monitored.

TOUR INFORMATION

EPA toured the facility: Yes

Observations:

Inspectors observed the preliminary inspector standing on a ladder to inspect all scrap brought into the facility by looking down into the truck bed. EPA also observed loads from customers who supply large amounts of appliances, kept in a separate part of the yard so that the loads can be inspected more carefully.

Next, EPA inspected the shredder, and observed steam from the shredder. EPA also recorded FLIR videos taken at various locations around the shredder, as documented in Appendix A. Inspectors entered a shredder operating room and observed that the shredder cyclone (C31) was running at 281 amps, the pump running water into the shredder scrubber (C32) was running at 30 amps, and the HEAF unit (C33) was running at 500 amps.

EPA inspectors then inspected the auto body “de-man” area. Facility personnel showed EPA inspectors the device they used to recover refrigerant when necessary, and images of this device are documented in Appendix A.

Lastly, EPA inspectors inspected the non-ferrous side of the facility. Non-ferrous materials were sorted into separate stalls or bins indoors (e.g., copper pipes grouped together, aluminum pipes grouped together, etc.). EPA observed a full bin of No. 1 copper refrigerant lines and were told that no refrigerant recovery certification is required for these items.

Photos and/or Videos: were taken during the inspection, as listed in Appendix A.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

The following records were provided to Inspectors and reviewed on-site:

1. FEMS Material Supplier Certification
2. Alter Unacceptable and Conditionally Acceptable Materials

CLOSING CONFERENCE

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

Requested Documents:

1. All FEMS contracts from Jan. 31 – Feb. 4 for 2020 – 2022
2. All inspection logs from Feb. 4, 2022
3. Rejection log
4. VOC LACT from air permit
5. Completed inspection ticket
6. HEAF unit manufacturing information

DIGITAL SIGNATURES

Report Author: _____

Steel, Laura

Digitally signed by Steel,
Laura
Date: 2022.03.14
15:08:25 -05'00'

Section Supervisor: _____

SARAH
MARSHALL

Digitally signed by
SARAH MARSHALL
Date: 2022.03.15
09:37:52 -05'00'

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APPENDICIES AND ATTACHMENTS

1. Appendix A: Digital Image Log

Facility Name: Alter Trading Corporation – Milwaukee
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APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: Emma Leeds	2. Archival Record Location: https://usepa.sharepoint.com/:f:/r/sites/R5_Work/r5erc/ecad/AECAB%20Library/Enf_Alter%20Metal%20Recycling%20-%20Milwaukee_WI_22/Enf_Alter%20Metal%20Recycling%20-%20Milwaukee_WI_22_InspRep/Digital%20Image%20Log?csf=1&web=1&c=98RKSh
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Image Number	File Name	Date and Time (CT)	Description of Image
1	IMG_0547	2/4/22, 11:15 AM	Prohibited materials sign
2	IMG_0549	2/4/22, 11:30 AM	Cranes loading materials into shredder
3	IMG_0551	2/4/22, 11:34 AM	Load from supplier who provides large amounts of appliance
4	IMG_0552	2/4/22, 11:38 AM	Fridge with compressor removed
5	IMG_0553	2/4/22, 11:44 AM	Shredder with visible emissions
6	IMG_0554	2/4/22, 12:05 PM	Shredder with vents leading to PM controls
7	IMG_0555	2/4/22, 12:20 PM	Automobile “de-man” area
8	IMG_0556	2/4/22, 12:20 PM	Automobile refrigerant recovery equipment
9	IMG_0557	2/4/22, 12:20 PM	Refrigerant tank in automobile
10	IMG_0558	2/4/22, 12:30 PM	Entrance signage
11	MVI_0548	2/4/22, 11:25 AM	Video of material being loaded into shredder
12	MVI_0550	2/4/22, 11:32 AM	Video of material being loaded into shredder

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1. Inspector Name: David Sutlin	2. Archival Record Location: https://usepa.sharepoint.com/:f:/r/sites/R5_Work/r5erc/ecad/AECAB%20Library/Enf_Alter%20Metal%20Recycling%20-%20Milwaukee_WI_22/Enf_Alter%20Metal%20Recycling%20-%20Milwaukee_WI_22_InspRep/FLIR%20Videos?csf=1&web=1&e=onvbjj
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Image Number	File Name	Date and Time (incl. Time zone and DST)	Description of Image
1	MOV_0153.mp4	N/A	FLIR video of shredder operations
2	MOV_0154.mp4	N/A	FLIR video of shredder PM controls stack
3	MOV_0155.mp4	N/A	FLIR video of shredder operations
4	MOV_0156.mp4	N/A	FLIR video of shredder operations
5	MOV_0157.mp4	N/A	FLIR video of shredder operations
6	MOV_0158.mp4	N/A	FLIR video of operations at back end of shredder
7	MOV_0159.mp4	N/A	FLIR video of shredder PM controls stack
8	MOV_0160.mp4	N/A	FLIR video of operations at back end of shredder
9	MOV_0162.mp4	N/A	FLIR video of operations at west side of shredder and stack
10	DC_0161.jpg	N/A	Still image – west side of shredder and exhaust duct