



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

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Chromium Incorporated, Racine, Wisconsin

FROM: Emma Leeds, Environmental Engineer
AECAB (IL/IN)

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

TO: File

BASIC INFORMATION

Facility Name: Chromium Incorporated (Chromium Inc.)

Facility Location: 1930 Roosevelt Avenue, Racine, Wisconsin 53406

Date of Inspection: March 15 and April 5, 2022

EPA Inspector(s):

1. Emma Leeds, Environmental Engineer
2. Brittany Cobb, Environmental Engineer
3. Laura Steel, Environmental Engineer (March 15)

Other Attendees:

1. Andrea Powers, President – Chromium Inc.
2. Tom Powers, Vice President – Chromium Inc.
3. Emma Wright, Air Management Engineer – Wisconsin Department of Natural Resources (WDNR) (April 5)

Contact Email Address: service@chromiuminc.com

Purpose of Inspection: Assess compliance with Clean Air Act (CAA) and applicable permits and regulations

Facility Type: Hard chrome electroplating

Regulations Central to Inspection: 40 C.F.R. Part 63 Subpart N: National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (NESHAP Subpart N)

March 15, 2022 On-Site Inspection

Arrival Time: 11:15 AM CT

Departure Time: 11:40 AM CT

April 5, 2022 On-Site Inspection

Arrival Time: 11:00 AM CT

Departure Time: 11:45 AM CT

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☒ Provided Small Business Resource Information Sheet
- ☒ Provided CBI warning to facility

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

Company Ownership: The current owners (the Powers family) purchased the facility in 2017. The facility name remained “Chromium Inc.”

Process Description:

Chromium Inc. is a small-order rack electroplating job shop that plates steel, stainless steel, and brass parts. The facility operates two hard chromium (hexavalent) electroplating tanks, and emissions from each tank are separately controlled by two composite mesh-pad scrubbers with three stages each. Fume suppressants are also used as a secondary emissions control for the electroplating tanks. Chromium Inc. also performs polishing of parts both before and after plating with two hand-polishing machines.

Staff Interview: EPA briefly interviewed Andrea Powers on March 15, 2022 before Chromium Inc insisted the inspection be cut short due to a tragedy in the family-owned business. EPA returned to complete the inspection on April 5, 2022.

March 15, 2022

Chromium Inc. has three employees and operates from 7 AM – 3:30 PM Monday – Thursday.

A performance test for the two scrubbers was last performed in 2015, establishing a maximum pressure drop of 3 inches of water column ("wc) for the Tank 1 scrubber and 2" wc for the Tank 2 scrubber.

April 5, 2022

Tank 1 holds 465 gallons and Tank 2 holds 620 gallons. Parts are plated for up to 8 hours at a time. Emissions from Tank 1 are controlled by the "south scrubber" and emissions from Tank 2 are controlled by the "north scrubber". The scrubbers are over 20 years old. Visual inspections inside the scrubbers are performed quarterly and pressure drop readings across the scrubbers are recorded daily. Backflushes of the scrubbers are also performed regularly. This backwashing process, as well as humidity during the warmer months, frequently causes moisture to accumulate in the pressure drop gauges and tubing of the north scrubber, preventing the pressure drop gauge from taking readings. When they notice this is happening, Chromium Inc. turns off their electroplating tank, unplugs the tubing, and flushes out the accumulated moisture. No calibration is performed on the pressure drop gauges after this process. Tom Powers shared that this issue has been occurring for at least 20 years.

The facility does not have a written operation and maintenance plan (O & M plan).

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:

March 15, 2022

EPA briefly toured the facility and observed that the gauge on the scrubber for Tank 1 was reading 0" wc pressure drop. Tom Powers explained that the gauge wasn't working because moisture had accumulated in the gauge lines. EPA observed that the polishing machines were in the same room as Tank 1 and there was no physical barrier in between them. EPA observed the pressure drop across the Tank 2 scrubber to be 1.4" wc.

April 5, 2022

EPA observed the pressure drop across the Tank 1 scrubber to be 2.2" wc and the pressure drop for Tank 2 scrubber to be 1.8" wc. Andrea Powers explained that materials collected in the drip containment surrounding the electroplating tanks are disposed of as hazardous waste about once a year.

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

See Appendix A.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

1. 2022 pressure drop readings for Tanks 1 and 2

CLOSING CONFERENCE

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

Requested documents:

- Previous 2 years of pressure drop readings for Tanks 1 and 2
- Fume suppressant Safety Data Sheet
- Previous 2 years of quarterly scrubber inspection logs

DIGITAL SIGNATURES

Report Author: **Leeds,
Emma**  Digitally signed by Leeds,
Emma
Date: 2022.05.10
11:02:52 -05'00'

Section Supervisor: **Frank,
Nathan**  Digitally signed by Frank,
Nathan
Date: 2022.05.13
08:12:54 -05'00'

Facility Name: Chromium Inc.

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APPENDICES AND ATTACHMENTS

- 1.* Appendix A – Digital Image Log

Facility Name: Chromium Inc.

Facility Location: 1930 Roosevelt Ave, Racine, WI

Date of Inspection: March 15 and April 5, 2022

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_ChromiumInc_WI_22/Enf_ChromiumInc_WI_22_InspRep/Digital%20Image%20Log?csf=1&web=1&e=Gp3qDS
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Image Number	File Name	Date and Time (CT)	Description of Image
1	IMG_1411.JPG	3/15/22, 11:30 AM	Pressure drop gauge for Tank 2 scrubber