



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

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Zenith Cutter, Loves Park, IL

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

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

TO: File

BASIC INFORMATION

Facility Name: Zenith Cutter

Facility Location: 5200 Zenith Parkway, Loves Park, IL 61111

Date of Inspection: 11/15/2021

EPA Inspector(s):

1. Karyn DeFranco, Inspector
2. Natalie Schulz, Inspector

Other Attendees:

1. Tim Greve, Plant Manager, Zenith Cutter
2. Tom Paulson, Maintenance Supervisor, Zenith Cutter
3. Carlos Diaz, General Manager, Zenith Cutter
4. Amanda Jacinto, HR Manager, Zenith Cutter

Contact Email Address: TimG@zenithcutter.com

Purpose of Inspection: To investigate hazardous air pollutant emissions, specifically chromium, and to evaluate applicability of the National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories (NESHAP XXXXXX).

Facility Type: Metal Precision Machining Facility

Regulations Central to Inspection: NESHAP XXXXXX and Illinois SIP at 35 Ill. Adm. Code 201.141 and 35 Ill. Adm. Code 203.107.

Arrival Time: November 15, 2021 12:41 PM

Departure Time: November 15, 2021 1:33 PM

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.
- ☒ Provided CBI warning to facility

The following information was obtained verbally from Zenith Cutter unless otherwise noted.

Process Description:

Zenith Cutter is a metal precision machining facility that produces blades/knives from steel. Various grades of steel are unloaded, cut, milled, heat-treated, and grinded. Zenith processes Steel that contains Metal Fabrication and Finishing HAPs (MFHAP); as defined by NESHAP XXXXXX, the definition of MFHAP includes cadmium, chromium, lead, manganese, and nickel. MFHAP are released as air emissions when steel is heated, cut, milled, and ground. Zenith Cutter has eight furnaces, two powered by natural gas and six electric furnaces. The cut steel is in the furnaces for approximately two hours at a time, with temperatures varying from 400-2000°F. The cut steel can go through multiple cycles in the furnace depending on the desired product. Coolant is used in the milling and grinding processes.

Staff Interview:

- Zenith Cutter has approximately 15 mills: three mills are unenclosed, and the remaining twelve mills are enclosed. Affected sources under NESHAP XXXXXX includes all equipment necessary to perform machining operations which use materials that contain MFHAP for the purpose of producing metal household articles and other fabricated metal products.
- Zenith Cutter has 26 grinders: 19 fine grinders open without mist collection and seven rough grinders enclosed with mist collection. Affected sources under NESHAP XXXXXX includes dry grinding and dry polishing machines used to process materials that contain MFHAP and requires that emissions from dry grinding machines are captured and vented to a filtration control device.
- Zenith Cutter uses two different coolants for the milling and grinding processes.

- Coolant is mixed with water to be approximately 3-4% coolant and flood over the steel in the grinding process to prevent rusting.
- Coolant for milling gets recycled within the process. Coolant is not used on the unenclosed mills. Dry machines that do not use coolant account for roughly 20% of the machines.
- Zenith Cutter registered as a small source under the Illinois EPA's Registration of Smaller Sources (ROSS) program. NESHAP XXXXXX is applicable to operations, as explained above, that are area sources of HAP emissions.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:

EPA toured the facility and observed the process areas, emission units, and dust collectors. Zenith Cutter does not have a permit that requires the dust collectors. EPA was focused on MFHAP emissions including, but not limited to, chromium and therefore focused its inspection on the furnaces, millers, cutters, and grinders.

Photos and/or Videos: were not 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:

- A copy of the current ROSS permit;
- Associated annual documentation for ROSS status for the past 3 years;
- SDS sheets for all coolants used;
- Grinder list including, but not limited to, if the grinders are enclosed/not enclosed, vented to a collection system, etc.; and
- Monthly PM logs for the top 5 most used grinders with collection units.

DIGITAL SIGNATURES

Report Author: **KARYN DEFRANCO**
 Digitally signed by KARYN DEFRANCO
 Date: 2022.01.04 08:14:33 -06'00'

Section Supervisor: **Brian Dickens**
 Digitally signed by Brian Dickens
 Date: 2022.01.06 11:39:41 -06'00'