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

SUBJECT:	CLEAN AIR ACT INSPECTION REPORT Wieland
FROM:	Ethan Chatfield, Environmental Engineer AECAB (IL/IN)
THRU:	Nathan Frank, Section Supervisor AECAB (IL/IN)
TO:	File

BASIC INFORMATION

Facility Name: Wieland Rolled Products North America

Facility Location: 305 Lewis and Clark Blvd, East Alton, Illinois

Date of Inspection: July 21, 2022

EPA Inspector(s):
1. Ethan Chatfield, Environmental Engineer
2. Brittany Cobb, Environmental Engineer

Other Attendees:
1. Keith Pontow, Environmental Manager Wieland
2. Jenny Munper, Senior Environmental Engineer Wieland

Contact Email Address: keith.pontow@wieland.com

Purpose of Inspection: Observe stack test at Hot Mill.

Facility Type: Brass Mill

Regulations Central to Inspection: Construction permit requirements.

Arrival Time: 8:06 am
Departure Time: 2:00 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. Reason: Not a small business
☒ Provided CBI warning to facility

The following information was obtained verbally from **Keith Pontow** unless otherwise noted.

Company Ownership: The Wieland facility in East Alton is split into two locations. The south site at 305 Lewis and Clark Blvd, is where the brass sorting, melting, casting, annealing, and rolling (in the Hot Mill) occurs and the north site off Shamrock Road has additional rolling, cleaning, slitting, annealing, and cupping (finishing) operations. The Shamrock Street site is shared with Olin Winchester, who purchased a portion of the "cupped" brass to manufacture ammunition.

Process Description:
See below.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:
Upon entry of the facility, EPA inspectors noted a 30+% opacity plume from a short-hooked vent near ground level attached to the 'old test mill' known as the Material Research Laboratory (MRL) on the north end of the south property by the entrance gate. Pontow explained that when Wieland took over the facility in approximately 2019, they closed down the MRL because Wieland had its own research facility in Germany and there was no need to perform tests at this location. Upon further investigation, it was discovered that a group within Wieland was however performing a "crucible reclaim" test. One of the engineers (no name provided) explained that the "baghouse didn't work" and so they were venting emissions. Pontow asked that they stop operation until further investigation. Pontow noted later during the day that he had contacted others and that the operations would not be restarted until it could be done in full compliance. EPA inspectors did not note any opacity for the remainder of the time on site for this operation.

EPA inspectors then observed a portion of the rolling for run #2 of the Hot Mill stack test. Run 1 occurred from 5:39 to 7:43 am. Run 2 from 8:19 to ~10:19am and run #3 was set for 12:30 to 2:30pm. An additional, backup run was set for 4:30 to 6:30pm in case any runs have trouble. Pontow informed EPA inspectors after lunch that run #1 failed and would need to be redone at

the back-up time slot. Pontow explained that they buy scrap metal, sort it, melt it, and cast approximately 20-foot-long bars. The bars are then reheated to a malleable temperature and go to the Hot Mill for rolling. The 10-ton, 20-foot bar is rolled into a 300-foot-long strip about ¾" thick. The Hot Mill can roll approximately 12 bars per hour. The width is held relatively constant through the rolling and only the bar length increases. The rolled product is then rolled in large coils. The facility produces a number of different coils including Alloy 110 (pure copper) and various brass alloys (which contain approximately 70% pure copper and 30% zinc). The facility only produces one alloy with 5% lead. There is no lead in the brass except the very small tolerance that is allowed per specification.

Water or steam is used to cool the Hot Mill during rolling. A hood over the Hot Mill operation collects this steam and vents it through a small stack on the roof (IMG_0102.JPG and IMG_0103.JPG). The stated purpose of the vent is to exhaust steam out of the building. There are no emission controls on this vent. There is also a quench at the end of the rolling line with a separate stack.

At approximately 9:45am, EPA inspectors and Munper went to the rooftop and observed the stack test firm (Civil & Environmental Consultants Inc. - CEC) conduct run #2. The stack tester on the roof (Robert) explained the Method 5 sampling train setup and EPA observed three ports and a 9 point transect across each port for a total of 27 sampling points per stack test. Ezzie Boyd, physically located on a lower rooftop, collected data and explained that he was monitoring seal, temperature, flow and pressure change. He further explained that the sampling train would be cleaned with acetone and all particulates would be collected and weighed.

EPA inspectors, Pontow, and Munper then walked over to the casting floor and observed a casting unit in operation from the walkway bridge (IMG_0110.JPG, IMG_0111.JPG). Pontow explained that the hooding system for every casting unit has been upgraded to at least a 2nd generation (only 1 left to get the 3rd generation). The 1st generation system added hood, 2nd generation added the position and interlock damper system and the 3rd generation added an extendable canopy to collect emissions during tilting. The initial cost of the 1st generation system was approximately $150,000. Pontow explained that the casting evaluation started in June by Environmental Testing Associates (ETA) is only for 5DC but is used as an example since it is covered by a single baghouse (i.e. easier to study). There are 3 baghouses (#s 2, 3, and 4) and 6 casting units. 3DC and 2DC is covered by the #4 baghouse. 1DC, AsCast and 4DC is covered by the #2 baghouse and 5DC is covered by the #3 baghouse. See IMG_0105.JPG for layout diagram.

EPA inspectors explained that they also have a few questions regarding the Shamrock (north) Wieland operation due to a recent citizen complaint EPA received. Pontow explained that they had also received a similar complaint dating back to around 2010 from probably the same citizen. The citizen contacted IEPA, the Village, and the facility regarding particulates landing in his swimming pool and property. The facility also received an additional complaint from the citizen through IEPA in or about 2017 and May 2020 but hasn't heard anything since. In response, the plant took samples from the pool back in 2010 and the material appeared to be dead spiders. Pontow also said that he did about 3 weeks of drone reconnaissance but determined that any vents were too far from the resident's property line to potentially cause a concern and did not

note any significant particulate fallout on rooftops. EPA explained that the recent complaint they received mentioned oil landing on property and hence seemed like a more specific concern than only particulate fallout in a pool. Pontow explained that the only processes that could result in the release of oil particulates were the sulfuric acid cleaner and the rolling lines, which have oil mist eliminator filters. There are a total of 5 rolling line operations, each with an oil mist eliminator filter. The stacks for the rolling lines are approximately 1,000 feet from the residence house and would need to travel over the roof of another building and a parking lot. Pontow explained he is not aware of any complaints of particulates or oils landing on cars in the company parking lot. He also noted that they recently replaced roofing and have not noticed any recent deposition.

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

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

No records were collected during this inspection

CLOSING CONFERENCE

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

Requested documents:

- Layout of stacks and vents for the Wieland north property. Requested again on 7-27-22 via email.

Compliance Assistance: None.

Concerns: Expressed compliance concern over MRL vent opacity.

DIGITAL SIGNATURES

Report Author: ETHAN CHATFIELD Digitally signed by ETHAN CHATFIELD Date: 2022.08.03 16:15:15 -05'00'

Section Supervisor: Frank, Nathan Digitally signed by Frank, Nathan Date: 2022.08.03 16:35:37 -05'00'

Facility Name: Wieland
Facility Location: 305 Lewis and Clark Blvd, East Alton, Illinois
Date of Inspection: July 21, 2022

APPENDIX A: DIGITAL IMAGE LOG

1. **Inspector Name:** Ethan Chatfield	2. **Archival Record Location:** Electronic Records Center

Image Number	File Name	Date and Time (incl. Time zone and DST)	Description of Image
1	IMG_0100.JPG	2022:07:21 08:32:16	Hot Mill Stack area (flagged off)
2	IMG_0101.JPG	2022:07:21 08:32:26	Hot Mill Stack area (flagged) closer
3	IMG_0102.JPG	2022:07:21 09:06:36	Hot Mill vent on mill floor
4	IMG_0103.JPG	2022:07:21 09:06:46	Hot Mill vent on mill floor
5	IMG_0104.JPG	2022:07:21 09:08:04	Bar being loaded onto Hot Mill during stack test Run #2
6	IMG_0105.JPG	2022:07:21 09:36:13	Configuration of furnace layouts
7	IMG_0106.JPG	2022:07:21 09:52:31	Stack test vent during Run #2
8	IMG_0107.JPG	2022:07:21 09:52:38	Method 5 sampling train
9	IMG_0108.JPG	2022:07:21 09:57:19	flagged area for stack test vent
10	IMG_0109.JPG	2022:07:21 10:44:18	Old diagram of furnace configuration
11	IMG_0110.JPG	2022:07:21 10:53:27	New furnace hood configuration
12	IMG_0111.JPG	2022:07:21 10:53:44	New furnace hood configuration
13	IMG_0112.JPG	2022:07:21 10:56:18	Furnace hood configuration from ground floor
14	IMG_0113.JPG	2022:07:21 10:56:29	Casting furnace - too dark
15	IMG_0114.JPG	2022:07:21 13:19:01	Photohelic on operating Mist Eliminator filter on Rolling Mill line
16	IMG_0115.JPG	2022:07:21 13:26:12	Mist Eliminator on Rolling Mill at north facility