



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

DATE: *August 3, 2021*

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Nickel Composite Coatings, Inc., Bedford Park, IL

FROM: Brittany Cobb, Environmental Engineer
AECAB (MI/WI)

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

TO: File

BASIC INFORMATION

Facility Name: Nickel Composite Coatings, Inc.

Facility Location: 6454 W 74th St., Bedford Park, IL 60638

Date of Inspection: June 25, 2021

EPA Inspector(s):

1. Alexandra (Sasha) Letuchy, Environmental Engineer
2. Brittany Cobb, Environmental Engineer

Other Attendees:

1. Philip Fabiyi – President of Nickel Composite Coatings, Inc.

Contact Email Address: pfabiyi@ncccoat.com

Purpose of Inspection: To determine Clean Air Act (CAA) Compliance.

Facility Type: Nickel and tin electroplating facility.

Regulations Central to Inspection: 40 CFR part 63, subpart WWWW – National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations; 40 CFR part 63, subpart N - National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks.

Arrival Time: 1:30PM Central Time (CT)

Departure Time: 2:25PM CT

Inspection Type:

- Unannounced Inspection
- Announced Inspection

OPENING CONFERENCE

- Presented Credentials
- Stated authority and purpose of inspection
- Small Business Resource Information Sheet not provided. Reason: Included with inspection report via email.
- Provided CBI warning to facility

The following information was obtained verbally from Philip Fabiyi unless otherwise noted.

Process Description:

Nickel Composite Coatings, Inc. (Nickel Composite) opened in 2000 and has been at this location since 2003. In October 2021, they will be moving to another location in Cook County. There were 18 employees pre-Covid and are currently 9-10. The production times are 9:00 AM – 5:30 PM, Monday - Friday.

Nickel Composite makes coatings for pistons and cylinders and sells directly to manufacturers. The nickel composite coating is nickel based, alloyed with phosphorus, and impregnated with Boron Nitride. 99% of the raw material coming into Nickel Composite is aluminum, with a small portion being steel. The facility includes one tin and one nickel tank of 1,350 and 1,750 liters, respectively. Both tanks are made of polypropylene. The tin tank is kept at room temperature. The pistons are loaded onto a machine that dips the pistons in various tanks which includes nitric, sulfuric, and hydrofluoric acid and then tin and/or nickel. The process from start to finish is 45 minutes for nickel and 30 minutes for tin. The emissions are calculated annually based on production. The pH measurements of the tanks are also taken but it is uncertain if these are recorded.

The facility uses Atotech Y17 wetting agent for the nickel tank and covers the nickel tank when not in use. 300 liters of the wetting agent is added per a certain number of pistons. The facility does not measure surface tension of either the tin or nickel coating tanks. Historically, the emissions from the tin and nickel coating tanks and treatment tanks were exhausted to a caustic wet scrubber. The wet scrubber was required by the State permit. They do not monitor operation of the scrubber, and have not performed any capture tests or stack tests, but there are annual inspections and there was an initial test on the scrubber.

Staff Interview: Although the facility's construction permit for a NESHAP source, issued 9/14/2004, includes requirements related to chromium plating and bright nickel plating, Nickel Composite has not done any chromium plating for over 10 years and do not have a bright nickel plating tank. Additionally, there was a fire in the facility earlier this year that melted two nickel tanks. There is no CBI.

When asked whether the facility was subject to 40 CFR part 63, subpart WWWW – NESHAP for Plating and Polishing Operations, Philip Fabiyi indicated that he did not believe they were subject because they did not produce enough to trigger applicability.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:

EPA inspectors went on a tour of the production area with Philip Fabiyi. Inspectors observed the pistons being loaded onto the production line equipment. The production line consisted of around 20 tanks, including tanks containing pretreatments, water rinses, tin, and nickel. Philip also showed the inspectors the computer that controls the line and the nickel and tin tanks. The inspectors observed that the portion of the wet scrubber intake vents for the nickel-plating tank was destroyed during the fire and therefore the nickel tank was no longer being controlled by the wet scrubber. Additionally, the scrubber had two manometers measuring pressure drop. One of the meters read 1.75 inches of water and the other read 0 inches of water.

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW: N/A

CLOSING CONFERENCE

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

Requested documents:

1. Wet Scrubber
 - a. Monitoring records, if any, for 2017 – present
 - b. Maintenance records for 2017 – present
 - c. Inspection reports, if any
 - d. Manufacturer's specifications and instructions
2. Annual emissions reports for 2017 – present
3. Operation and Maintenance Plan and manufacturer's specifications and operating instructions

4. 40 CFR part 63, subpart N MACT Ongoing compliance status reports for area sources (40 C.F.R. § 63. 63.347(h)) for years 2017 – 2020
5. 40 CFR part 63, subpart WWWW Initial Notification, Notification of Compliance Status, and Ongoing Compliance Status Reports ((40 C.F.R. § 63.11509) for years 2017 – 2020
6. Record of date, time and amount of wetting agent added for 2017 – present for each tank
7. Records of surface tension measurements expressed in dynes per centimeter (dynes/cm) for 2017 – present
8. Date of the fire
9. MSDS for process materials that contain nickel (nickel nuggets)
10. pH of Nickel tank

SIGNATURES

X Cobb,
Brittany

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Brittany
Date: 2021.08.03
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Brittany Cobb
Environmental Engineer

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Sarah Marshall
Section Chief