



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

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
North Coast Container LLC

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

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

TO: File

BASIC INFORMATION

Facility Name: North Coast Container LLC (NCC)

Facility Location: 8806 Crane Ave, Cleveland, OH 44105

Date of Inspection: July 13, 2023

EPA Inspector(s):

1. Emma Leeds, Environmental Engineer
2. Alexandra Letuchy, Environmental Engineer

Other Attendees:

1. Ray Navarro, ERS & Operations Manager – North Coast Container

Contact Email Address: rnavarro@ncc-corp.com

Purpose of Inspection: To investigate compliance with Clean Air Act and Title V permit

Facility Type: Steel drum manufacturing facility

Regulations Central to Inspection: 40 C.F.R. Part 63 Subpart M - National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (NESHAP Subpart M)

Arrival Time: 8:30 AM EST

Departure Time: 10:45 AM EST

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☒ Small Business Resource Information Sheet not provided. Reason: not a small business
- ☒ Provided CBI warning to facility

The following information was obtained verbally from Ray Navarro unless otherwise noted.

Company Ownership: Stavig Group bought the facility about 4.5 years ago, which was previously a stand-alone family business.

Process Description:

North Coast Container produces standard and specialty 55-gallon drums out (both open head and closed head) of metal coils. To form the body of the drums, the coils are cut into different sized rectangles and welded together to form a cylinder. The drum bodies are washed to remove oils and then sent to the shell lining booth (also known as “shell locker booth,” or “K003” in the Title V permit) for interior lining with mainly phenolic, epoxy phenolic, and modified phenolic paints, and are then cured at 420° F in an oven. Some drums do not require interior coating.

To form the circular tops and bottoms of the drums, coil is stamped at the press department and lubricated to reduce friction throughout the manufacturing process. Tops and bottoms are then sent through the head and bottom spray booth (also known as “head locker room,” or “K001” in the Title V permit) for coating, and then a drying oven for curing.

Next, the cylinders are conveyed to the seamer, where a metal retaining ring for open head drums is added to each drum so the drums can be held in a horizontal position as the bottom parts are added to the cylinder and mechanically flange-folded 7 times. For closed head drums, the top and bottom are added to each drum and seamed in the same way. Seaming glue is applied in between the plies as they are being folded. The drums are next sent through the exterior paint booth (“K002” in the Title V Permit) followed by a 320° F curing oven. Finally, the drums go to final assembly, where certain components such as rubber gaskets, agitators, or plugs are added to drums based on customer specifications, open head drum tops are added to the open head drums, and drum labels are added, before the drums are sent out to customers.

Emissions from the three coating booths are sent through three dry baffle filter systems with metal baffles and cardboard accordion filters for particulate matter control, and then routed to the atmosphere through stacks.

Staff Interview: North Coast Containers operates in two shifts (10 PM – 6:30 AM and 6:30 AM – 4 PM) with 130 employees. NCC typically produces about 500 drums per hour, making 2.1 million drums in 2022.

Air emissions for the facility are calculated using emission factors from the Certificate of Assurance (COA) forms for each material and the material usage for the month. Ray stated that the facility was previously over-reporting volatile organic compound (VOC) emissions by using emission factors from Method 24 rather than VOC-exempt emission factors from the COAs. Lubrication of the tops and bottoms produces the most VOC emissions from the facility.

For the exterior paint booth, the cardboard accordion filter is replaced every day, and the dry metal baffles are cleaned every Saturday. For the head and bottom spray booth, the cardboard accordion filter is replaced every day, and the dry metal baffles are cleaned approximately every 3 months. For the shell lining booth, an anemometer is used to measure velocity and the filters are replaced when velocity starts to decrease. The facility does not maintain records regarding metal baffle cleaning dates or accordion filter replacements but may have some records of anemometer readings.

The chime coating booth (“K004” in the Title V permit) was used to coat the areas towards the top and bottom of the drums where paint would wear away throughout the manufacturing process. The line was deemed unnecessary based on customer needs and the facility plans to remove the booth from their Title V permit.

At the time of the inspection, NCC was in the process of replacing the exterior paint booth. The new oven for the exterior paint booth was already installed and a technician was working on the paint booth. Ray stated that the facility wasn’t sure if production would increase with the new paint booth because final assembly would still be the bottleneck with production speed, although the facility has plans to automate the final assembly process in 2024. The facility also has plans to replace the seamer.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:

EPA observed the new exterior coating line oven (Image 1) and spray booth (Image 2) that were being constructed at the time of the inspection. Ray explained that with the system, the spray booth will stop operation whenever the spray booth door is opened. EPA then observed the exterior coating line that will be replaced, and Ray showed EPA an example cardboard accordion filter used in the filter system (Image 3). EPA observed the seamer, where the seaming compound is sprayed as the tops and bottoms are folded and saw no hood or capture system collecting seamer compound emissions. Next, in the shell lining booth, Ray showed EPA the preventative maintenance checklist for the booth filter system (Image 4), and EPA noticed a thick layer of paint on the metal baffles in the filter system (Images 5 and 6). Ray stated that the baffles hadn’t been cleaned for a few weeks and needed to be cleaned. Lastly EPA observed the

head lining spray booth and lubrication (also referred to as “soap”) application on the tops (Image 7) followed by the final assembly line.

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

See Appendix A

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

Ray Navarro showed EPA examples of COAs, emission calculation spreadsheets, and semi-annual NESHAP reports on his computer.

CLOSING CONFERENCE

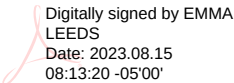
☒ Provided U.S. EPA point of contact to the facility

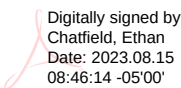
Requested documents:

- Semi-Annual NESHAP MMMM Reports for 2020, 2021, and 2022
- Air emission calculation spreadsheets and reports for 2020, 2021, and 2022
- Quarterly deviation reports for 2020, 2021, 2022
- Permit to Install application for new exterior coating line, including potential emission calculations and information including the previous and new ways the facility calculates VOC emissions
- COA or Material Safety Data Sheet for seaming compound
- Representative sample of COAs for the main paints (black, white, green blue)
- COAs for the 9 lining paints

Concerns: EPA expressed concerns about the thick layer of paint accumulated on the metal baffles in the shell lining booth and suggested incorporating cleaning of the shell lining booth into the facility’s maintenance program. EPA also recommending maintaining records of cleanings and filter change outs for each booth.

DIGITAL SIGNATURES

Report Author: **EMMA LEEDS**  Digitally signed by EMMA LEEDS
Date: 2023.08.15 08:13:20 -05'00'

Section Supervisor: **Chatfield, Ethan**  Digitally signed by Chatfield, Ethan
Date: 2023.08.15 08:46:14 -05'00'

APPENDICES AND ATTACHMENTS

- 1.* Appendix A – Digital Image Log

Facility Name: North Coast Container
Facility Location: 8806 Crane Ave, Cleveland, OH
Date of Inspection: July 13, 2023

APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: Emma Leeds	2. Archival Record Location: <i>USEPA Region 5 Electronic Records Center</i>
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Image Number	File Name	Date and Time (EST)	Description of Image
1	P7130167.JPG	2023:07:13 09:43:19	New exterior coating line oven
2	P7130168.JPG	2023:07:13 09:48:09	New exterior coating line spray booth, in construction
3	P7130169.JPG	2023:07:13 09:55:44	Cardboard accordion filter for exterior coating spray booth
4	P7130170.JPG	2023:07:13 10:03:36	Preventative maintenance checklist for shell lining booth
5	P7130171.JPG	2023:07:13 10:04:27	Shell lining booth, metal baffles caked in paint
6	P7130172.JPG	2023:07:13 10:04:39	Zoomed in photo of shell lining booth metal baffles caked in paint
7	P7130173.JPG	2023:07:13 10:11:30	Lubricant spray onto tops and bottoms