



REGION 5

CHICAGO, IL 60604

MEMORANDUM

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Fives North American Combustion, Cleveland, Ohio

FROM: DeMarkus Hodge, Environmental Engineer
AECAB (MI/WI)

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

TO: File

BASIC INFORMATION

Facility Name: Fives North American Combustion

Facility Location: 4455 East 71st Street, Cleveland, OH 44105

Date of Inspection: April 23, 2024

EPA Inspector(s):

1. DeMarkus Hodge, Environmental Engineer
2. Natalie Schulz, Environmental Engineer
3. Justin Smith, Environmental Engineer

Other Attendees:

1. Mathew Robinson, HSE Manager

Contact Email Address: mat.robinson@fivesgroup.com

Purpose of Inspection: This facility was part of the Cleveland community group initiative. In addition, this facility was targeted to determine the facility's compliance with its operating permit and the Ohio State Implementation Plan (SIP).

Facility Type: Combustion equipment manufacturing plant

Facility Name: Fives North America
Facility Location: 4455 East 71st Street, Cleveland, OH 44105
Date of Inspection: April 23, 2024

Regulations Central to Inspection: The facility is subject to the permit to install and operate, PTIO No. P0133245, and the Ohio SIP

Arrival Time: 8:50 AM CST

Departure Time: 11:00 AM CST

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 Fives North America unless otherwise noted.

Process Description:

Fives North American Combustion (Fives) is a combustion equipment manufacturing plant that produces burners, blowers, fuel trains, panels, and controls that ensure safe operation of its burners. In Fives' production process, general steel, stainless steel, cast iron, aluminum, or brass are used in the machining of valves and regulators. In addition, any castable material and bar stock undergo the machining process. However, the flat stock goes through fabrication then machining. In the fabrication process, the structure of the equipment is established depending on what product is produced. While in fabrication, the metal structure is coated in non-solvent paint in one of three spray paint booths depending on the size. The spray paint booths have dry particulate filters systems; the filters are monitored with manometers to gauge the pressure. After fabrication and machining, refractory is the next step for equipment containing flat stock. Fives test its burners in the refractory where there are two natural gas furnaces. The furnaces are used to ensure that the burners can operate at the design specifications. Once the constructed equipment has passed all tests, the final product is taken to assembly to ensure all components including the electricals are put together. Fives had additional furnaces for research and development, where one furnace is not operational. Fives had three furnaces classified as de minimis.

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Staff Interview:

Fives operates Monday through Friday from 6 AM – 11:30 PM with two shifts. The facility employs approximately 200 employees, where 100 work in the shop and 100 work in the field. Casting operations do not occur at this facility. The entire process takes from weeks to months depending on the equipment developed. Fives' permit incorporates various requirements of the Ohio State Implementation Plan (SIP), including requirements for the furnaces. Each furnace is permitted to use #6 fuel oil; however, the facility strictly uses natural gas. The largest furnace was located outside in which large structures are tested for burner design specifications. To determine compliance for the furnaces, EPA requested documentation of the emission and natural gas usage. The facility has three boilers that are not in its permit. To confirm compliance for the boilers, EPA requested daily inspection documentation. Also, EPA requested emission documentation for the spray paint booths.

TOUR INFORMATION

EPA Toured the Facility: Yes

Data Collected and Observations:

EPA used an optical gas imaging (OGI) camera to screen for potential volatile organic compound (VOC) emissions from the spray paint booths. When touring the facility, the furnaces were not operating. FLIR videos were not recorded.

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:

- Coating HAP log and usage sheet
- Annual HAP emission documentation
- PFD of the facility
- Emission and natural gas usage for B001, B010, B013, B014
- Boiler daily check sheet
- Quarterly deviations for B001, B010, B013, B014, P002, P003 for the past year
- Emission records for K001 and K003
- List of de minimus furnaces

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DIGITAL SIGNATURES

Report Author: Hodge,
Demarkus

 Digitally signed by Hodge,
Demarkus
Date: 2024.05.31 09:32:03 -05'00'

Section Supervisor: SARAH
MARSHALL

 Digitally signed by SARAH
MARSHALL
Date: 2024.05.31 09:47:59 -05'00'