



REGION 5

CHICAGO, IL 60604

MEMORANDUM

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Italmatch Chemicals, Cleveland, Ohio

FROM: Veronica Fischer, Environmental Engineer
AECAB (MI/WI)

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

TO: File

BASIC INFORMATION

Facility Name: Italmatch Chemicals

Facility Location: 1000 Belt Line Street, Cleveland, OH 44109

Date of Inspection: April 22, 2024

EPA Inspector(s):

1. Veronica Fischer, Environmental Engineer
2. Aileen Drum, Environmental Engineer

Other Attendees:

1. Nick Hagglund, Plant Manager
2. Liam North, Plant Engineer
3. Megan Daugherty, EHS Manager

Contact Email Address: n.hagglund@italmatch.com

Purpose of Inspection: To evaluate compliance with the facility's permit and the Ohio SIP

Facility Type: Oil additive manufacturing

Regulations Central to Inspection: Ohio SIP, federally enforceable operating permit

Facility Name: Italmatch Chemicals
Facility Location: 1000 Belt Line St, Cleveland, OH
Date of Inspection: April 22, 2024

Arrival Time: 1:20 PM EDT

Departure Time: 2:50 PM EDT

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 Italmatch Chemicals personnel unless otherwise noted.

Company Ownership:

Italmatch entered into an agreement to merge with Elco Corp's parent company, Detrex, in 2017. Approximately five years ago, the Elco Corp Cleveland plant began to operate as Italmatch Chemicals.

Process Description:

Italmatch Chemicals (Italmatch) is an oil additive manufacturing facility in Cleveland, Ohio. The facility receives petroleum-based and animal-based oil and enhances it with various chemicals such as sulfur. The facility produces approximately eighty to one-hundred different additive products. The Cleveland facility will sometimes produce intermediate products for use at other Italmatch Chemicals facilities. The facility operates several batch processes to manufacture the wide variety of products. The facility operates four kettles and two reactors, a reflux tank, as well as blend tanks. The reactors handle higher pressure processes than the kettles. The facility has approximately twenty storage tanks for raw materials, intermediates, final products, and wastewater. Emissions from three of the kettles and one of the reactors are routed to the incinerator. The remaining kettle and reactor are controlled by a caustic scrubber. The emissions from the batch processes consist mainly of hydrogen sulfide and volatile organic compounds (VOC). The facility also has a baghouse to control particulate emissions from powder additives. The facility does not use any powder additives that contain metal hazardous air pollutants.

Staff Interview:

The kettles and reactors also serve as holding tanks while sampling is performed on products for quality assurance. During this holding time, the kettles and reactors are maintained at an elevated temperature and the agitator continues to mix the product to prevent settling.

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The facility does not operate the incinerator at all times. The incinerator is only operated when the facility is running a campaign. A campaign typically lasts a few days. As required by the facility's operating permit and Ohio Administrative Code rule 3745-21-07(M)(4), Italmatch is required to reduce VOC emissions by 85 percent. Additionally, the incinerator must meet a destruction efficiency of 90 percent. The permit also requires that the incinerator is operating at all times when the reactors are operating and must maintain a temperature of 1450 degrees Fahrenheit.

The facility does not control any emissions from the outdoor storage tanks. EPA inspectors requested emissions estimates for the storage tanks.

TOUR INFORMATION

EPA Toured the Facility: Yes

Data Collected and Observations:

EPA inspectors used an optical gas imaging camera to monitor equipment for VOC emissions. During the tour, EPA inspectors noted a black oily substance on the floor of the main production building and around equipment openings such as hatches and manways on the kettles and reactors.

At the time of the inspection, the facility's incinerator was not in operation. During the tour, reactor R2 was running, while reactor R1 was holding material pending sampling results. All four kettles also contained material that was being held pending sampling results. The agitator on kettle K5 continued to operate and mix the material.

Photos and/or Videos: were taken during the inspection and are listed in Appendix A.

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

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

Requested documents:

- Any performance tests on the incinerator and/or caustic scrubber
- Last three years of emissions calculations
- Storage tank spreadsheet
- Last month of temperature monitoring for the incinerator
- Last month of pH monitoring for the caustic scrubber
- Last month of caustic usage with corresponding batch cards
- Process flow diagram
- Last three years of permit evaluation reports
- Last three years of quarterly deviation reports
- Most recent permit issued by Ohio EPA

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DIGITAL SIGNATURES

Report Author: VERONICA
FISCHER



Digitally signed by VERONICA
FISCHER
Date: 2024.06.21 10:39:26 -05'00'

Section Supervisor: SARAH
MARSHALL



Digitally signed by SARAH
MARSHALL
Date: 2024.06.21 10:50:19 -05'00'

APPENDICES

1. Appendix A: Digital Image Log and Digital Video Log

Facility Name: Italmatch Chemicals
Facility Location: 1000 Belt Line St, Cleveland, OH
Date of Inspection: April 22, 2024

APPENDIX A: DIGITAL IMAGE LOG AND DIGITAL VIDEO LOG

Inspector Name: Veronica Fischer **Archival Record Location:** ERC/Enf_Italmatch_OH_24/Videos

Image Number	File Name	Date and Time (EDT)	Latitude and Longitude	Description of Image
1	FLIR0152.mp4	1:11 PM	-	Kettle K3
2	FLIR0153.mp4	1:13 PM	-	Agitator on kettle K1
3	FLIR0154.mp4	1:21 PM	-	Incinerator stack