



REGION 5

CHICAGO, IL 60604

MEMORANDUM

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Harsco Environmental, East Chicago, Indiana

FROM: Carlo Demma, Physical Scientist
AECAB (MN/OH)

THRU: Brian Dickens, Section Supervisor
AECAB (MN/OH)

TO: File

BASIC INFORMATION

Facility Name: Harsco Environmental

Facility Location: 5222 Indianapolis Blvd, East Chicago, Indiana 46312

Date of Inspection: March 7, 2024

EPA Inspector(s):

1. Carlo Demma, Physical Scientist (Env.)
2. Valeria Apolinario, Environmental Engineer

Other Attendees:

1. James Hilton, Plant Manager, Harsco Environmental
2. Lewis Roman, Production Supervisor, Harsco Environmental
3. Clifford Yukawa Environmental Manager, Indiana Department of Environment Management
4. Ramelito Biscocho, Environmental Engineer, Indiana Department of Environment Management

Contact Email Address: JEHilton@harsco.com

Purpose of Inspection: Determine if baghouses and cyclone are operated in a manner consistent with good air pollution control, including but not limited to, meeting daily requirements of visible emissions and particulate matter limits at all baghouse stacks.

Facility Type: Stationary briquette manufacturing plant.

Facility Name: Harsco Environmental
Facility Location: 5222 Indianapolis Blvd, East Chicago, IN 46312
Date of Inspection: March 6, 2024

Regulations Central to Inspection: All of the permitted baghouses and Plant 1 cyclone are subject to particulate emission limits and opacity limits according to Title V Air Permit T089-45833-00323. Section D.1.7 of the permit requires, upon failure, that the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced.

Arrival Time: 2:00PM

Departure Time: 3:30PM

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 James Hilton unless otherwise noted.

Process Description:

Harsco Environmental (Harsco) operates five main briquette manufacturing plants at this location. Harsco creates three main products. The products are slag conditioner briquettes, desulf briquettes, and calcium aluminate. Plant 1 creates briquetted calcium aluminate via a rotary kiln. Plant 2 uses a miller routed to a pug mill mixer and a pressing machine that stamps iron fines into briquettes. The stamped briquettes pass through a drum style rotary kiln. Plant 3 is the small briquette line, which utilizes the same process as Plant 2, except there is no miller and an additional shaker, to screen out fines. Plant 4 is the small bagger line where slag conditioner is bagged into 20-50 pound sacks and loaded onto trucks for transport and sale. Plant 5 is the "forbin system" where all three products are placed into 500 – 4,000 pound supersacks for transport and sale. All material is transferred to finishing storage areas inside the building so the material kept below 1% moisture. Plants 1-5 are all controlled via individual baghouses (Baghouses 1-5). Specifically, Plant 1 is controlled by a baghouse and cyclone dust collection system. Harsco exports all product via truck.

Staff Interview:

Plants 1-3 are currently processing about 15,000 tons briquetted material per month. The plants typically operate Monday through Friday on two shifts from, 7:00 AM – 3:00PM and from 11:00PM – 7:00AM. The cyclone collection system, which is attached to the baghouse system on Plant 1 is currently not operational and has been removed from service for some time. Currently, the facility only operates three silos, which include, Plant 1's Blue Silo, Plant 2's Hydrate Silo, and Plant 3's

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Hydrate Lime Silo. Filters on storage silo bin vents are regularly inspected, for clogging but have not been changed out for some time.

TOUR INFORMATION

EPA Toured the Facility: Yes

Data Collected and Observations:

Harsco was ending shift 1 for the day and all the equipment was shut down. EPA learned that HARSCO had Engineering firm come out on March 1, 2024 and inspected all of the baghouses, exactly five days prior to EPAs unannounced arrival. The facility plant manager self-reported that the baghouse controlling Plant 5 was damaged and failed this inspection. The facility plant manager indicated to EPA that the Baghouse 5 was scheduled to be repaired the following day, Thursday March 7, 2024. EPA learned that cyclone system, which is attached to the baghouse controlling Plant 1 (Drying Plant) was taken out of use sometime around 2008. Further communication with the company indicates that IDEM became aware of this during an unannounced inspection on March 3, 2021. The facility completed a stack test on 11/26/2019 which showed compliance for PM-10 and opacity limits without the use of the cyclone system. To date, it is unclear why IDEM hasn't removed the cyclone from the permit and why the equipment remains on-site.

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

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

EPA reviewed paper records of the facility's daily air emission monitoring forms while onsite. After reviewing the materials for some time, EPA did not see any indication of abnormal emissions notated on the facility forms. EPA obtained copies of the forms through the inspection records request detailed below.

CLOSING CONFERENCE

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

Requested documents:

- Records of plant's throughput (tons of briquettes produced) from each plant.
- Hours of operation of each plant and the hours of operation for each control device.
- The previous 6 months of bin vent filter changeouts.
- All baghouse inspection reports within the last year.
- Copies of daily visible emission (VE) checks for the previous 6 months.
- The exact date the cyclone for Plant 1 was taken out of use and any documentation of state notification for its removal.

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- A copy of the last stack test and projected date of next stack test for each plant.
- The past 3 years of quarterly deviation reports (January 2021 – present day).

Concerns: EPA expressed concern over the permitted Plant 1 (Drying Plant) cyclone, and the fact that the facility was unable to secure information that IDEM approved the removal of the pollution control device. EPA also expressed concern over the failed baghouse inspection on the baghouse controlling Plant 5.

DIGITAL SIGNATURES

Report Author: **CARLO DEMMA**  Digitally signed by
CARLO DEMMA
Date: 2024.04.25
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Section Supervisor: **BRIAN DICKENS**  Digitally signed by BRIAN
DICKENS
Date: 2024.04.26
07:57:59 -05'00'