

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
RESOURCE CONSERVATION AND RECOVERY ACT**

BASIC INFORMATION

Facility Name: CMC Materials, Inc.
RCRA ID: COR000008847

Facility Location: 250 William White Blvd.,
Pueblo, CO 81001

Notification Status: LQG

Facility Contact: (b) (7)(C)
Phone: (b) (7)(C)

Date of Inspection: May 9, 2023

Start Time: 9:00 a.m.
End Time: 6:45 p.m.

Lead Inspector: (b) (7)(C), U.S. EPA RCRA Inspector

Other Attendees:

1. (b) (7)(C), EPA RCRA Inspector
2. (b) (7)(C), Colorado Department of Public Health and Environment (CDPHE) RCRA Inspector
3. (b) (7)(C), Plant Manager
4. (b) (7)(C), Operations Manager
5. (b) (7)(C) EHS Technician
6. (b) (7)(C) EHS Manager, Colorado Springs

Type and Purpose of Inspection: Compliance Evaluation Inspection

Applicable Regulations to Inspection: 6 CCR 1007-3 Parts 260-279

Inspection Type: Announced Inspection
Joint EPA and State Inspection

OPENING CONFERENCE

☒ CBI warning to facility provided

The following information was obtained verbally during the inspection from (b) (7)(C) (b) (7)(C), unless otherwise noted and from documents reviewed in preparation for the evaluation.

Facility Type: Primary NAICS: 325180, other basic inorganic chemical manufacturing

Company Ownership: The facility was built by Ashland Chemicals in 1998 to produce chemicals for semiconductor manufacturing. In 2004 Air Products purchased it; in 2008, it became KMG Chemicals. In 2018 Cabot purchased it, and it became CMC Materials in July 2021. Entegris, Inc. bought the facility in July 2022, and it is to become CMC-Entegris, but it has not legally transferred yet.

Facility Name: CMC Materials, Inc.

Facility Location: 250 William White Boulevard, Pueblo, CO 81001

Date of Inspection: May 9, 2023

We explained this evaluation was a joint EPA and CDPHE inspection. The EPA would lead and write the inspection report in approximately sixty days, with a copy provided to the company within approximately seventy days. Any follow-up enforcement would be taken by the state inspector, (b) (7)(C)

The company presented a brief safety overview and described the personal protective equipment required. They also described the facility alarms.

General Facility and Process Description:

Facility Process Overview: CMC Materials EC, Inc., a 250,000-square-foot facility, processes chemicals for electronics manufacturing. The facility was operating Monday through Friday at the time of the inspection. They have approximately 120 to 130 employees, of whom 95 are permanent employees, 15 to 20 are hybrid employees associated with the site, and 15 to 20 are contracted. This includes the security crew, the transportation team, buyers, logistics and IT. The guard station is manned 24/7.

The facility acts as a processor of acids and bases for use in the manufacture of semi-conductors, mostly acids but also some bases. These include, but are not limited to, acetic acid, sulfuric, nitric, ammonium hydroxide and potassium hydroxide. They conduct four primary processes in bulk tanks: 1) purify chemicals; 2) produce ammonia hydroxide; 3) purify nitric acid in batches

There is no hazardous waste storage in tanks, only containers. Hazardous waste storage includes two 90-day areas and satellite accumulation areas (SAAs). One 90-day storage area is a clamshell storage unit in an area of the facility referred to as the ballroom. The clamshell can hold four 55-gallon drums. The second 90-day storage area is in Warehouse B. No acute hazardous waste is generated at the facility. Cleanouts of blending tanks when switching between batches, excursions in processes, and washouts of tank heels sometimes generate hazardous waste. They also generate universal wastes, used oil and electronic wastes. Hazardous wastes are picked up by Univar and Veolia. There are two satellite accumulation areas (SAA) in the lab. One is a 15-gallon drum for solvent and hydrofluoric acid, which get full about every two months. The second SAA in the lab is a 55-gallon drum for sulfuric acid wastes. As part of the QA procedures, the lab retains one-gallon samples for three months to one year. It is then poured into a drum and tested; if it can't be reworked, it is disposed of.

Facility Name: CMC Materials, Inc.

Facility Location: 250 William White Boulevard, Pueblo, CO 81001

Date of Inspection: May 9, 2023

(b) (7)(C) described a container which had been stored greater than 90 days, since 2/8/23. It contains a mixture of potassium hydroxide, hydrofluoric acid and ammonium fluoride which makes it difficult to find a disposal option. (b) (7)(C) acknowledged that CDPHE had been notified and had issued extensions for storage of this waste.

Regular trash goes to Pueblo. Electronic wastes are recycled by Blue Star. They also recycle cardboard, single-use plastic, aluminum cans and waste metals. They do scrap metal recycling of aluminum and steel through Dionisio Metal & Iron.

The RCRA-empty drums may be taken by Colorado Container for reuse. Some containers are not returned for reuse, but those that are get recertified prior to reuse.

There have been no reportable quantity spills in the last three years. Also, there have been no Contingency Plan incidents in the last three years. The City of Pueblo would respond to fires and conducts annual inspections. There are 55 trained facility responders who would be the primary response. They provided the Emergency Call Directory for our review, which included the Incident Commanders and roles. They have monthly safety meetings, and the emergency response team holds quarterly drills. 100% of facility staff receive hazard awareness training.

The facility operates a wastewater treatment system which discharges to the City of Pueblo under a pretreatment permit. The key parameters are sulfate and ammonia. They submit quarterly reports and annual full-site audits. They discharge 800,000 to one million gallons of wastewater per month to the city. Sources of water into the system include the following: 1) rinse drums, brand new drums, all plastic containers; 2) discharge from their ultra-pure and deionized water treatment systems; and 3) water from processes, such as rinsing of the tanks and containers. They conduct elementary neutralization, treating the water for pH using nitric acid or sodium hydroxide. If they can't treat the wastewater to city standards, it is placed in one of four frac tanks for disposal by Valicor, Denver.

The facility holds a synthetic minor air permit issued by the state of Colorado. They have five scrubbers: 1) general scrubber for general acids; 2) lab scrubber; 3) ammonia hydroxide scrubber; 4) nitric acid scrubber; and 5) bottling scrubber for acids or bases.

All tanks are diked and are inside except for the nitrogen and argon tanks. All pipes are above ground. There are approximately fifteen sumps in the building, all of which go to the wastewater treatment plant, including through floor trenches. There are sump level monitors, but the sumps don't automatically send to the wastewater treatment system. They test all for sulfate and ammonia. The facility uses test strips for sumps and use probes at the wastewater treatment system.

They do not generate any acute hazardous wastes and minimal quantities of organic hazardous wastes. At the time of the inspection, they did not have any organic hazardous waste in storage. If they do, they use the clamshell for organics, which could include pentachlorophenol, from a lab cleanout. They use flammables as reagents for testing, which include acetone, methanol or isopropyl alcohol. Acetic acid and formic acid are products with concentrations of approximately 99 percent. Acetic acid is also used in blends and much lower concentrations.

Facility Name: CMC Materials, Inc.

Facility Location: 250 William White Boulevard, Pueblo, CO 81001

Date of Inspection: May 9, 2023

CBI: No CBI was discussed during the onsite inspection or submitted in the follow-up requested records. At the end of the inspection, (b) (7)(C) reviewed the photos and cleared them as being non-CBI.

Areas of the facility toured: The site tour included the warehouses, tank farm, truck bays, wastewater treatment system, trench system, labs, two 90-day hazardous waste storage areas, the satellite accumulation areas, some of the sumps, and the universal waste and used oil storage area.

Warehouse B, which has a 90-day hazardous waste storage area, was toured. The drums were on pallets, they were closed, labeled, dated, and indicated the hazard on the label. The container which exceeded the ninety-day storage limit and contained potassium hydroxide, HF, and ammonium fluoride, which created disposal issues, was stored on a pallet in this area and dated 2/8/23. There is a hazardous waste pickup at least once per month. Weekly inspections are conducted to track storage time.

Following a lunch break, we saw Warehouse A, the shipping dock, the Ballroom, the tank wagon unloading bays, the tank farm, and the wastewater treatment system. Part of the Ballroom is used for storing universal wastes, including bulbs, batteries, used oil, and electronic wastes. There are 16 docks in the facility.

Warehouse D is used for storage of oxidizers. There are no sumps in the warehouses.

The second 90-day storage area, a clamshell which can hold four 55-gallon drums, is located in the ballroom. The outside of the clamshell was labeled as HW Accumulation Area, 90-Day Accumulation Area. At the time of the inspection, it only contained one 10-gallon non-hazardous waste, GenSolve (a blend containing ethylene glycol).

Universal wastes were also stored in the ballroom. There was a 55-gallon drum which was 1/3 full of used oil. An aerosol can crusher, no longer in use, sat atop a drum labeled as flammable liquid, HW paint waste. An open tote held electronic wastes. There was a 5-gallon container for used batteries, including D, AA and AAA batteries. The used florescent bulbs are stored in prepaid shipping boxes, which may be 4' by 8' long, and bulbs of odd sizes are stored in a bucket. The boxes of used lamps included the following items: two small boxes, two medium boxes, and one box of longer used lamps dated 4/26/22, exceeding the allowed one-year storage. There were also two 5-gallon containers, storing used oil adsorbent pads and used oily rags.

The tank wagon area, which has eight dedicated bays, is sloped to a sump, which is a 3 ft x 6 ft x 14 inches deep trench. The tanker contents are sampled prior to unloading for quality. The tanker is hooked up to hoses and pressurized with nitrogen. The contents are unloaded to one of the bulk tanks. The bulk tanks are located in the tank farm, which is bermed.

Facility Name: CMC Materials, Inc.

Facility Location: 250 William White Boulevard, Pueblo, CO 81001

Date of Inspection: May 9, 2023

The laboratory has four sections: wet lab, sample prep, metal lab, and the particle counting room. The WET Lab has a satellite accumulation area consisting of a 15-gallon container labeled as waste flammable liquid (corrosive) (methanol, HF). There was also a satellite accumulation area consisting of one 55-gallon container labeled as hazardous waste, sulfuric analytical wastes, with an indication of hazard. In one of the lab cabinets were four 1-gallon containers labeled as hazardous waste but no indication of the hazard; these four containers were 1/3 full to completely full. In this same cabinet were five one-gallon containers labeled as lab sample, BWLSC-03, nano-strip (hydrogen peroxide/sulfuric,); these did not have a hazardous waste label or indication of the hazard.

We walked past the tank farm, all of which is indoors, and the tanks are diked. The floor was dry and in good condition.

We saw the new drum washing system required by some customers. We also saw the area where used drums are cleaned for recertification and reuse.

In the drum dock area, we saw four totes, one of which was empty, and three totes of trench wastewater that were not labeled. Mr. Orosz used a test strip to determine the pH, which was determined to be less than 2. The totes were not dated nor labeled as containing hazardous waste and did not have an indication of the hazard. The facility did not know how long the totes had been stored there or the origin of the waste in the totes since they had been reused.

There is an area for reused drum cleaning. There are three different booths, one for inspections, heel cleanout, and rinse.

We saw the wastewater treatment system, which is run in 500-gallon batches. Tanks 871 A and B are treatment tanks. Tank 870 is the initial holding tank used for storage. The sump and floor were degraded and water was in the secondary containment. The facility stated the sump is PVDF-lined. There are four 21,000-gallons frac tanks to store wastewater that does not meet the standards for discharge to the city. The treated water is monitored for pH, ammonia and sulfate. The wastewater treatment system has a filter press.

. Outside is the truck wash building, which now holds empty containers and a weld shop.

Closing Conference

Only (b) (7)(C) (b) (7)(C) were present for the closing conference. (b) (7)(C) outlined his compliance concerns, completed a CDPHE Notice of Inspection (NOI) form and a compliance advisory which (b) (7)(C) (b) (7)(C). In the Wet Lab, satellite accumulation area, four of nine one-gallon containers were labeled as hazardous waste and five were not labeled as hazardous waste; also, all nine of the one-gallon containers were not labeled with an indication of the hazard of the waste. One box of universal waste lamps had been stored greater than one year. Three totes of trench wastewater had no label, no date and no indication of hazard; and the facility had failed to make a hazardous waste determination on the contents of all three totes. For eight of the

Facility Name: CMC Materials, Inc.

Facility Location: 250 William White Boulevard, Pueblo, CO 81001

Date of Inspection: May 9, 2023

manifests reviewed, the facility failed to maintain a signed copy of the manifest from the receiving facility.

The facility was allowed thirty days to respond in writing to the CDPHE compliance advisory.

(b) (7)(C) stated that the state would also hold a case development meeting to determine the next steps.

Records Review: The state and EPA inspectors reviewed the Contingency Plan and Quick Reference Guide and spot-checked inspection logs and manifests for 2021, 2022 and 2023. The facility explained that everyone is trained at an awareness level for hazardous waste. There is both initial and annual training for hazardous communication and RCRA awareness. (b) (7)(C) and (b) (7)(C) sign the manifests. Waste profiles are maintained online. There are corporate goals and procedures for waste minimization, an example of which is reworking of materials.

Follow-up Records Request:

The following records were requested to be provided by email: training records for 5 individuals, including one person who left 2 to 3 years ago and the following five waste profiles and hazardous waste determination documents:

- 1) Manifest 016998860FLE, line 3
- 2) Manifest 014830839FLE, line 1
- 3) Manifest 00203030321VES, line 2
- 4) Frac tank contents for wastewater that did not meet POTW standards for sulfate and ammonia
- 5) Filter cake

INSPECTION FOLLOW-UP

By a letter dated June 7, 2023, the facility responded to (b) (7)(C) Compliance Advisory. Additionally, (b) (7)(C), by emails dated May 19, May 25 and May 26, 2023, submitted the information requested by the EPA as part of this inspection.

Outstanding Concern

During the inspection, totes of floor trench waste were identified by the facility as hazardous waste. Sumps and floor trenches receiving hazardous waste that is not immediately removed as part of a spill response may be subject to regulation as ancillary equipment if they comprise an integrated tank system. Such trenches are subject to the requirements for hazardous waste tanks. Sumps and floor trenches that do not meet the definition of a tank or that receive hazardous waste not associated with a tank system may be subject to permitting requirements. Sumps and floor trenches that are exempt from such requirements under the wastewater treatment unit exemption must be maintained in a manner to prevent releases because any hazardous waste managed in those units remains regulated until the point of mixing with domestic sewage, and releases of hazardous waste, for example through cracks or other defects in the sumps or trenches, are subject to full regulation under RCRA. Sumps and floor trenches that receive

Facility Name: CMC Materials, Inc.

Facility Location: 250 William White Boulevard, Pueblo, CO 81001

Date of Inspection: May 9, 2023

hazardous waste subsequently transferred to containers prior to delivery to a wastewater treatment system are not eligible for the wastewater treatment unit exemption.

Evaluation of the Compliance Advisory response and above-noted outstanding concern is deferred to CDPHE as the lead agency. No further actions by the EPA are anticipated at this time.

SIGNATURE

Lead Inspector: **LINDA JACOBSON** Digitally signed by LINDA JACOBSON
Date: 2023.07.21 12:57:59 -06'00'

RCRA/OPA Enforcement Branch Manager: **JANICE PEARSON** Digitally signed by JANICE
PEARSON
Date: 2023.07.26 12:55:50 -06'00'