



ENVIRONMENTAL PROTECTION AGENCY

REGION 1 – NEW ENGLAND

5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

August 4, 2023

Jenner Almanza, EHS&S Coordinator
Hubbard-Hall, Incorporated
563 S Leonard St
New Haven, CT 06708

Re: U.S. EPA-Region 1 Inspection Report of Hubbard-Hall, June 6-7, 2023

Dear Mr. Almanza:

In accordance with current policy, I am providing you with a copy of the final inspection report summarizing observations made during the June 6-7, 2023 inspection of your facility.

This inspection was conducted under the authority of RCRA.

Please contact me at 617-918-1760 or wilkinson.cheryl@epa.gov if you have any questions.

Sincerely,

Cheryl Wilkinson, Life Scientist
Waste and Chemical Compliance Section

cc: George Dew, CT DEEP

Disclaimer: Unless otherwise noted, this report describes conditions at the facility/property as observed by EPA inspector(s), and/or through records provided to and/or information reported to EPA inspector(s) by facility representatives and as understood by the inspector(s). This report may not capture all operations or activities ongoing at the time of the inspection. This report does not make final determinations on potential areas of concern. Nothing in this report affects EPA's authorities under federal statutes and regulations to pursue further investigation or action.

ENVIRONMENTAL PROTECTION AGENCY

REGION 1 – NEW ENGLAND

5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

RCRA Compliance Inspection of:

Hubbard-Hall, Incorporated
563 S. Leonard Street
New Haven, CT 06070

June 6-7, 2023

Date of Inspection

Cheryl Wilkinson, Life Scientist
Waste and Chemical Compliance Section

August 3, 2023

Date Inspection Report Approved

Mary Jane O'Donnell, Manager
Waste and Chemical Compliance Section

August 3, 2023

Date Inspection Report Finalized

August 4, 2023

Date Inspection Report Transmitted to Facility

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RCRA HAZARDOUS WASTE INSPECTION REPORT

I. GENERAL INFORMATION

- a. **Facility Name:** Hubbard-Hall, Incorporated
- b. **Inspection Date:** June 6-7, 2023
- c. **Inspection Type:** RCRA Compliance Evaluation Inspection (CEI)
- d. **EPA Inspectors:** Cheryl Wilkinson, Life Scientist
Linda Brolin, Environmental Engineer
Ryan Maisano, Physical Scientist
- e. **EPA ID Number:** CTD055310759
- f. **NAICS:** 32518- Chemical Manufacturing/Repackaging
- g. **Street Address:** 563 S. Leonard Street, West Haven, CT 06708
- h. **Mailing Address:** 563 S. Leonard Street, West Haven, CT 06708
- i. **Facility Contacts:** Jenner Almanza
EHS&S Coordinator
Phone: 203-490-5062
Email: jalmanza@hubbardhall.com

Gerard Mastropietro
Executive VP/COO
Phone: 203-756-5521 x5241
Email: gmastropietro@hubbardhall.com
- j. **Generator Status (per RCRAInfo):** Large Quantity Generator (LQG)
- k. **Date first notified as a generator (per RCRAInfo):** 08/04/1980
- l. **Date of most recent notification in RCRAInfo:** 2/11/2022
- m. **Current Property Owner:** Hubbard-Hall, Incorporated
- n. **Current Operator:** Hubbard-Hall, Incorporated

- o. Wastes generated (per most recent RCRAInfo notification): D001 D002 D003 D005 D006 D007 D008 D039 D040 F002 U002**

Report Attachments:

ATTACHMENT 1 – Digital photo log of photos taken by EPA inspectors throughout the inspection.

II. FACILITY DESCRIPTION

Hubbard-Hall Incorporated (“Hubbard-Hall” or “Facility”) is a large quantity generator with most of their work being chemical blending and mixing on-site per customer needs. They initially notified in RCRAInfo on 8/4/1980. The waste codes generated per the 2022 Biennial Report, are D001, D002, D003, D005, D006, D007, D008, D039, D040, F002, and U002. Hubbard-Hall is a family-owned specialized chemical supplier in business at its current location in New Haven, CT since the 1950s. The Main Building (where a great deal of chemical mixing occurs), laboratories, and administrative offices was built in 1968. The size of the facility is approximately 60,000 sq. ft. They employ approximately 64 people including office staff. Normal manufacturing hours are 6:00 am-2:30 pm, summer hours are 5:00 am to 1:30 pm. The office staff works 8:00 am-5:00 pm. Hubbard-Hall specializes in making chemical surface cleaning products, such as solvent cleaning solutions, metal finishing solutions, paint stripping solutions, rust prevention solutions, metal coloring solutions, assist in remanufacturing, heat treatment solutions, semiconductor solutions, and specialized wastewater treatment chemicals. They supply chemicals to the military, medical, wastewater, and technology industries. They also assist businesses to find process savings and solve wastewater treatment issues.

III. INSPECTION IN-BRIEF

EPA inspectors arrived at the Facility at 563 S. Leonard Street, West Haven, CT 06708 around 11:45 am on June 6, 2023. The EPA inspection team (“inspection team”) consisted of Cheryl Wilkinson, Linda Brolin, and Ryan Maisano. The inspection team signed in on an iPad and went through COVID-19 protocol questions. The inspection team presented their EPA credentials to the receptionist, the EHS&S Coordinator Jenner Almanza, and the Executive Vice President/COO, Gerard Mastropietro. The inspection team exchanged business cards at this time. Mr. Almanza explained that he has been with the company for 25 years and is the main contact listed in RCRAInfo. Mr. Mastropietro has been with the company for over 40 years. Both Mr. Almanza and Mr. Mastropietro led the inspection team to a conference room where the in-brief was conducted. The following personnel were present for all or part of the in-brief:

EPA:	Cheryl Wilkinson, Life Scientist Linda Brolin, Environmental Engineer Ryan Maisano, Physical Scientist
Hubbard-Hall:	Jenner Almanza, EHS&S Coordinator Gerard Mastropietro, Executive Vice President/COO William Morris, Principal Scientist, Regulatory

Compliance-Loureiro Environmental Associates, Inc.
("Loureiro")

EPA inspectors started the briefing by providing an overview of the inspection. The team listed records that would be requested, discussed areas of interest during the inspection, the need to take photos throughout the inspection, and confidential business information (CBI). Inspector Wilkinson provided the facility with the CBI notice and frequently asked questions documents. Facility personnel explained there is one area, the flammable wing where electronics are not allowed due to the flammable nature of the chemicals stored at that location, thus no photos can be taken inside.

The inspection team learned that Hubbard-Hall owns the land where the facility is located and has been operating at the location since the tank farm was built in the 1950s. The site uses the contract company, Loureiro for environmental compliance. They are on-site three days a week and are on call 24/7 in case of any issues/emergencies. Loureiro conducts audit checks, training, and inspections of waste areas for Hubbard-Hall. Mr. Almanza, as the EHS&S coordinator, oversees the contract and is responsible for managing the hazardous waste on site. William Morris, a Principal Scientist, Regulatory Compliance representative of Loureiro, joined the in-brief after the start time, as he was not onsite that day. Loureiro conducts the RCRA training on-site but did not create the contingency plan. The contingency plan was created by Hubbard-Hall. PPE for the facility tour was discussed and it was determined to only include safety glasses.

Mr. Almanza and Mr. Mastropietro explained that there are two 90-day hazardous waste accumulation areas (HWAA) located on site. One is for storage of flammable waste and the other is for the other types of hazardous waste. The flammable HWAA is located in the flammable wing outside of the Main Building. The other HWAA is located inside the Main Building nearby the flammable wing. There are three satellite accumulation areas (SAA) located on-site. Two SAAs are located in the Main Building, and one is located in the Tank Farm.

The site consists of the Main Building, the Tank Farm, and the Maintenance Garage. The following is a description of each area:

Main Building

The Main Building consists of two floors. The second floor is office space. The first floor consists of two labs, a manufacturing area, a warehouse, and the flammable wing, where flammable material is stored. The flammable wing is located outside, attached to the Main Building, but under cover.

There are two labs in the Main Building called New Lab and Old Lab. These labs perform quality control (QC) for the manufacturing process and bath analysis for customers. The company also conducts water and wastewater treatment analysis and sells water chemistries. The company has a product line called Aqua Pure, which is a flocculant for wastewater treatment plants that is mixed on-site and is used by customers to comply with their NPDES permits.

The New Lab uses an atomic absorption spectrometer for analysis. They take samples of plating bath solutions from customers, analyze them, and based on the analysis suggest additions or changes to their processes. The New Lab is also where the water treatment process analysis is completed. The Facility samples and analyzes customers wastewater treatment processes and based on the analysis suggest additions and changes. The New Lab generates small plating bath waste, from customer samples which is managed in a 55-gallon containers. There is one chromic acid waste stream which is managed in a 55-gallon container also. And two small streams of solvent waste, one for chlorinated solvent and one for mixed solvents. The solvents are used for vapor degreasing, managed in 5-gallon containers each. Universal waste is stored near the New Lab in the white room. Universal waste includes light bulbs and batteries.

The Old Lab conducts quality control (QC), for proprietary products before completion of product. The QC conducted is specific gravity analysis, and no waste is generated in the process. There is generally no waste generated in the Old Lab. If there is waste generated, they add it to the rinse water which collects in a sump from the washout of tanks. The QC samples are retained and stored in the Old Lab, when they no longer need them, they are dumped down the lab drain and enter into the sump.

The warehouse is where virgin product is stored. No waste is generated there, except for if any spills occur, containers leak, or old inventory needs to be disposed of. The inspection team asked if there had been any spills of hazardous waste on-site. The facility representatives explained that a drum of muriatic acid was accidentally punctured and spilled a small amount last year, in 2022. An incident report was written, and it was cleaned up. Absorbent was disposed of as waste. The Facility uses spill containment and clean-up procedures when a spill occurs.

Blending and mixing of chemicals is done using batch card formulations to make products in the manufacturing area. Hubbard-Hall uses 5 tanks, referred to as kettles, for the blending and mixing. The addition of raw materials to the kettle's is done in the upper mezzanine. Some of the kettles are used for dry chemical mixing/blending and some are designated for wet chemical mixing/blending. The kettles are approximately 900 gallons each. No reactions are taking place, only the mixing and blending of chemicals to make the products. Some chemicals, such as caustics and distilled water are hard-piped to the kettles, while others are added manually. Once the blending or mixing is complete, the product is dispensed from the bottom of the kettle, on the first floor under the mezzanine into containers. Each kettle gets manually rinsed using hoses between batches. The rinse water is discharged into a sump under the first floor. City water is used to rinse the kettles, no solvents.

The rinse water that goes into the sump are pumped to a 300-gallon holding tank where it is picked up by Covanta, formerly Globalcycle. Covanta, located in Massachusetts, recycles the wastewater and uses it in their processes. Mr. Almanza explained that they ship out the wastewater approximately every 6 weeks. The facility explained that they consider if the products they make in the kettles are hazardous or not. They explained they test the waste for pH, which most of the time is between neutral and on the higher end of the pH scale. Mr. Mastropietro stated that no solvents are used in the kettles for blending and mixing. Facility representatives explained that sometimes metals are used in the mixing or blending processes, and that if the metal is hazardous, they segregate the rinse water, drum it up, and ship it out as

hazardous waste. Any product that is off-specification is shipped off as waste. The wastewater is tested for pH every load but is normally close to a neutral pH. Covanta does its own analysis of the wastewater which includes many constituents and provides it to Hubbard-Hall annually. The facility representatives explained they do not use cyanides in their products.

Facility representatives explained that the waste streams generated in the manufacturing area are the wastewater from rinsing the kettles, wastewater contaminated with metals that they segregate, and used filters. They manage the used filters as non-hazardous waste.

The manufacturing area has a DI system that is only used in product mixes, not for rinsing the kettles. The flammable wing is located outside of the manufacturing area and only has a small amount of waste collected at an SAA from the lab and old stock.

Tank Farm

The tank farm includes 9-12 tanks currently in use. The tanks hold virgin products such as methanol, bleach, acids, trichloroethylene (TCE), isopropyl alcohol (IPA), and Dow Chemical heat transfer chemicals. Repackaging of virgin product from the tanks into smaller containers is done here. The facility does deliver some virgin product to customers and stores the virgin product in holding tanks. The tanks that are currently in use are 3 acid tanks, one bleach tank, one acetone tank, one IPA tank, and some Dow Chemical tanks. There are tanks that are out of service. They could be used again but would have to be cleaned and checked for integrity as several have been out of service for a long time. There are no hazardous waste tanks in the Tank Farm. There is a satellite accumulation area located in the tank farm. Waste includes accidental spills and PCB-contaminated rags from a PCB remediation project. No treatment of hazardous waste is done in the tank farm. Tanks are for product only.

Maintenance Garage

General maintenance of equipment pumps is done in the Maintenance Garage. It is mainly used for storage of parts and snow equipment. No oil changes or vehicle washing are done on-site. No used oil generated on-site. No hazardous waste is generated here.

Mr. Almanza explained that the facility looks at old inventory every year and they remove any old product. Any waste from this inventory is rare but it does occur.

The facility manages two SAAs and two HWAA's on the first floor of the Main Building. One HWAA is for flammable waste, the other is for other types of waste. One SAA for hazardous waste, and one SAA for PCB contaminated debris and rags in the Tank Farm area.

The in-brief discussion ended at approximately 1:30 pm, following which the inspection team conducted the walk-through portion of the inspection.

IV. FACILITY TOUR

This section consists of observations made by EPA inspectors during the physical tour of the Facility. See Attachment 1 for a digital photo log of photos taken throughout the inspection.

The tour of the Facility took place on June 6-7, 2023. The following personnel were present for all or part of the tour:

EPA:	Cheryl Wilkinson Linda Brolin Ryan Maisano
Hubbard-Hall:	Jenner Almanza Gerard Mastropietro William Morris- Loureiro

Flammable Wing

Upon exiting the conference room, walking downstairs, through the Main Building the inspection team arrived at the flammable wing and the HWAA located inside. The flammable wing is connected through a walkway and garage doors with the Main Building, (*See Attachment 1, Photo 1*). The flammable wing is approximately 4,500 sq ft and the floor is concrete. The area is outside but completely covered. The gate around the area is locked. The flammable storage wing holds virgin material, and in one area, at the front entrance to the wing, a HWAA. The inspection team observed the HWAA, (*See Attachment 1, Photo 2*). The inspection team observed a No Smoking sign, Hazardous Waste Storage Area sign, Unauthorized Personnel Keep Out sign, an evacuation route, and an emergency contact list at the area. The contact list has phone numbers with extensions and cell phone numbers. The list included Mr. Almanza and Mr. Mastropietro. Facility personnel explained they use cell phones for a communication device. The inspection team also observed, a fire extinguisher located in the doorway in the oxidizer room near the HWAA and spill control equipment nearby. The inspection team observed the following containers on a secondary spill containment at the flammable HWAA. All containers were closed:

- One 5-gallon container with a blue hazardous waste label. Facility representatives explained the 5-gallon container is old, expired stock they are disposing of. The label states UN 4325, flammable solids, NOS (potassium polysulfide) Dated: 5/15/23.
- One 5-gallon container with a hazardous waste label which stated flammable liquid, lab waste (ethyl acetate, methanol, isopropyl alcohol) Dated: 6/6/2023.

The inspection team left the flammable wing and continued the inspection in the Main Building-warehouse-oxidizer room, at the HWAA.

Main Building: Warehouse-Oxidizer Room

The HWAA in the Main Building is located in the oxidizer room. The oxidizer room is part of the product warehouse. The inspection team observed a No Smoking sign, Hazardous Waste Storage Area sign, Unauthorized Personnel Keep Out sign, and an evacuation route at the area. The inspection team also observed, a fire extinguisher and spill control equipment nearby, (*See*

Attachment 1, Photo 3). In the HWAA, the containers are staged on four different secondary containment spill pallets, (*See Attachment 1, Photos 4-8*). The inspection team observed the following containers in the HWAA:

Pallet One

- One cardboard 55-gallon container, non-hazardous waste containing nickel. The container was closed.
- One 5-gallon container hazardous waste labeled waste organic solvent (trichloroethylene, n-propyl bromide, methylene chloride, dated 6/6/2023). The container was closed.
- Two 5-gal white poly containers, non-hazardous waste, non-hazardous powders, container was closed.
- One 5-gal clear poly container, non-hazardous waste polymers, container was closed.
- Two 5-gallon white, non-hazardous wash pit sludge, container was closed.

Pallet Two

No containers on the pallet

Pallet Three

- One 55-gallon hazardous waste container, blue, labeled chromic acid, lab waste, dated-5/17/2023. The container was closed.

Pallet Four

- One 5-gallon container, hazardous waste label, sodium hydroxide waste, dated-5/12/2023. The container was closed.

The inspection team continued the inspection through the oxidizer room, which included various raw materials. And then into the manufacturing area.

Main Building: Manufacturing Area/Raw Material Storage

The inspection team continued to the manufacturing area of the Main Building and observed the raw material storage area. There were various totes and drums of raw material, both dry and wet used for mixing, stored in this area. Three 4,000-gallon storage tanks are located here. One is filled with potash and the other two are sodium hydroxide tanks. The inspection team observed one 55-gallon, black drum with a product label, with the end of the filling hose from the tanks placed inside it, located near the sodium hydroxide tanks, (*See Attachment 1, Photo 9*). Facility personnel explained that the hose is used to transfer the sodium hydroxide into other containers. Mr. Mastropietro explained that the sodium hydroxide is used for pH adjustment and the 55-gallon drum is used to catch the drippings out of the hose. There is also secondary containment for the transfer area. A deionized water system is located in this area and is managed by a separate contractor.

Main Building: Manufacturing Area

The inspection team continued the inspection in the manufacturing area. There is a ribbon blender in this area for blending dry product materials. There is a sump here, with the sump pit is

located near the middle of the manufacturing area. The inspection team observed that the sump pit had a red grate over it, (*See Attachment 1, Photo 10-11*). The facility personnel explained that the rinse water from the five kettles is hard piped to the sump pit. Additionally, the sinks in the labs drain into the sump. The sump pumps the wastewater to a holding tank. The wastewater in the sump is automatically pumped to the holding tank at each use. Facility personnel explained that the sump is not cleaned often and that if it was necessary, it would occur at the beginning of July when the entire process is shut down. The liquid waste is profiled and sent out as non-hazardous waste.

The inspection team observed one SAA with one 275-gallon tote labeled as non-hazardous nickel waste in the area. The area had hazardous waste signage and a no smoking sign. Mr. Almanza explained that sometimes, depending on the process, selenium can be stored in the SAA, but it is not done often. Mr. Almanza explained that if selenium was used, they would isolate the rinse water and store it here. He explained that nickel and selenium are the only metals used. Selenium is only used in small amounts and only occurs once or twice a year.

The inspection team observed the bottom of the kettles, where the finished product is discharged from, (*See Attachment 1, Photo 12*). The inspection team continued the inspection upstairs at the mezzanine, where the addition of chemicals into the kettles occurs. The area was not in use at the time of the inspection because of summer hours, and the crew had left for the day. Mr. Almanza explained raw materials, such as soda ash, ammonium chloride, glycol, ferrous chloride, and caustic beads were staged in this area because the material was prepped for the next day's mixing. Facility representatives explained that the kettles are equipped with air scrubbers, located in the mezzanine. Mr. Morris explained that the scrubbers are to scrub out any fumes in the mixing/blending process, and do not generate waste.

Main Building: Old Lab

The inspection team continued the inspection in the Old Lab. Quality Control is done here, and QC samples are retained and stored in the retains room, in this area. Retains are QC samples of products made by Hubbard-Hall and kept in the lab for approximately one year. They are saved in case issues arise with their products during that time. The inspection team observed containers of virgin material containing metals and some expired materials, (*See Attachment 1, Photo 13*). The inspection team observed one container labeled 1,1,1-trichloroethane, anhydrous located in the retains room. The TCE had a date of 10/31/2008, (*See Attachment 1, Photos 14-15*). The inspection team requested to speak to Sue Labeck, who works in the lab as a Tech Support Chemist and has been with the company for approximately 39 years. Ms. Labeck explained that the containers of metals are kept at the lab in case they ever have a need for them. Ms. Labeck explained that the container of 1,1,1-trichloroethane was used for a specific product in the past. She explained that product was made under a boss who is no longer with the company, and who had left the company at least two years prior. The facility representatives explained that they use a tracking system for products that are still active, and that they will check to see if the product this material was used for is still listed as an active product. And, if the product is no longer an active product, then, the 1,1,1-trichloroethane will be disposed of.

The inspection team continued the inspection in the chemical storage room. There are 5 gray storage racks of virgin materials. The materials are segregated by acids and bases and are in alphabetical order. A flammable storage cabinet is in the storage room. The inspection team looked at some of the materials for incompatibility and discussed with the facility to be cautious of storing incompatible materials together, (*See Attachment 1, Photo 16-21*).

Main Building: New Lab

The inspection team continued the inspection in the New Lab. Incoming plating samples from customers are analyzed in this lab. There were samples located in totes on the lab benches, and on the floor. The inspection team observed the contents inside the raw liquid's cabinet. The inspection team observed two 1-gallon containers which have a date of 7/28/2011. The containers are marked as Proka 3000 and PRP 4800, and both had question marks at the top of each container. The condition of both containers was concave, (*See Attachment 1, Photos 22-23*). The inspection team requested to speak with the lab manager. The inspection team met Faith Mierzejewski, the Lab Manager and asked her about the containers in the raw liquid's cabinet. Ms. Mierzejewski explained that these containers were generated from a product design project by a previous lab tech, Robin Tiede, who left the company approximately two and a half to three years prior. Ms. Mierzejewski explained that most of the product design work is now done in a lab located in South Carolina. The decision to move this process to South Carolina was finalized in the past few months. The lab began going through their inventory to remove the material that was part of the product design work in the last few months. Other than the two containers in the raw liquid's cabinet, the inspection team observed additional containers on the bench awaiting disposal, that facility representatives explained were also part of the product design work, (*See Attachment 1, Photos 24-26*).

The inspection team observed one SAA located in the back of the New Lab, in the stock room and cyanide storage room. The inspection team observed one 15-gallon, clear container labeled as hazardous waste, cyanide lab waste. The container was closed and there was a hazardous waste SAA sign and an emergency contact list located in the area, (*See Attachment 1, Photos 27-29*).

The inspection team observed the atomic absorption (AA) spectrometer located on a bench top in the New Lab. Under the bench, located in a cabinet, the inspection team observed one a 5-10-gallon clear container under the bench collecting waste from the AA instrument. The container was labeled "AA Reservoir—May Contain Metal Contaminants Handle as Hazardous Waste at Disposal". The container was closed, (*See Attachment 1, Photo 30*). The inspection team did not observe a hazardous waste SAA sign, or the words hazardous waste on the container.

The inspection team observed two one-gallon containers labeled as hazardous waste on a lab bench. Both containers were closed. One of the containers was labeled as "Nickel Copper Hazardous Waste" and the other was labeled as "Chrome Hazardous Waste". The inspection team did not observe an SAA sign in the area.

Main Building: New Lab/White Room

The inspection team continued the inspection in the white room, located next to the New Lab. The universal waste is located in this area. The inspection team observed one 5-gallon bucket of universal waste lead-acid batteries dated 4/14/2023. One 5-gallon bucket of universal waste LED lamps dated 2/3/2023 and one 5-gallon bucket of universal waste nickel cadmium batteries dated 8/2/2022. All three containers were closed and labeled with a universal waste label, (*See Attachment 1, Photos 31-32*).

The inspection team also observed a SAA in this area, with two 55-gallon containers in secondary containment. One container was labeled as hazardous waste, chromic acid lab waste. The other container was labeled as hazardous waste plating lab waste, nickel, copper, zinc, tin, lead, and acid. Both containers were closed, (*See Attachment 1, Photos 33-35*). The inspection team observed a no-smoking sign in the area. The facility representatives explained that waste from the one-gallon containers generated in the New Lab were consolidated into these 55-gallon containers. The inspection team observed a flammable cabinet located in this area for flammable liquid lab waste. Two 5-gallon containers were located in the area both were empty at the time of the inspection. One was labeled as hazardous waste ethyl acetate, methanol, and isopropyl alcohol. The other was labeled as hazardous waste organic solvents trichloroethylene, n-propyl bromide, and methylene chloride, (*See Attachment 1, Photos 36-37*).

The inspection team completed the walk through for day one and followed facility representatives back to the conference room on the second floor of the Main Building. The inspection team explained areas of concern from day one of the inspection. They explained the following:

- The container collecting waste from the AA, under the bench in the New Lab did not have a hazardous waste label.
- There was no waste determination made on the container of 1,1,1-trichloroethane in the Old Lab.
- There was no waste determination made on the three containers as part of the product design project, located in the New Lab, in the raw liquid's cabinet.

Mr. Morris explained that the facility representatives would look into whether the 1,1,1-trichloroethane was still an active product in their inventory system. The inspection team left the facility at approximately 4:45 pm.

Day 2, June 7, 2023

The inspection team arrived at the Facility at approximately 9:15 am on June 7, 2023. The inspection team was escorted back to the conference room in the Main Building, after checking in. The inspection team was joined by Mr. Almanza, Mr. Mastropietro, and John Gumpper, the Production Supervisor at Hubbard-Hall. Mr. Gumpper explained that he has been with the company for 24 years, and that he is filling in for the Tank Farm supervisor for the day.

Tank Farm

The inspection team began the walk-through at the Tank Farm, (*See Attachment 1, Photos 38-39*). Mr. Mastropietro drove the inspection team from the Main Building to the tank farm. John

Gumpper from Hubbard-Hall joined the team there. Mr. Mastropietro explained that PCB-contaminated paint was used on the building located in the area and will be removed for PCB remediation. The building currently houses the area where the tanks are pumped from. The removal of the building is pending. The inspection team then went inside a small office at the tank farm and was presented with PCB safety training and awareness by Mr. Mastropietro. Once the training was completed the inspection team signed a paper signifying, the team was given the training.

Mr. Gumpper explained that there are approximately 11 tanks in the tank farm that are active. No tanks in the Tank Farm are hazardous waste tanks. The tanks inside the Main Building replaced the 20,000-gallon caustic tank, located at the Tank Farm. Some of the active tanks in the Tank Farm include hydrochloric/Muriatic Acid, TCE, methylene chloride, Dow Frost (heat transfer fluid), nitric acid, sulfuric acid, and sodium hypochlorite. The tanks are only single-walled due to space limitations. There is a dike system that acts as secondary containment. The methylene chloride tank will be discontinued soon according to Mr. Mastropietro, who also mentioned the solvent tanks for methanol, isopropyl alcohol and acetone have been drained but not cleaned or rinsed out.

One waste stream generated in the area is sample retains from taking samples of the tanks for QC of the virgin material. Acids and caustics are not tested, but the sodium hypochlorite is. The facility retains the samples for 3 months and then disposes of them in a 55-gallon container at the SAA in the Tank Farm. Another waste stream generated in the area is the rinse water from rinsing the lines when new material is received, prior to adding it to the tank. The inspection team observed one SAA, located outside under cover at the Tank Farm. The inspection team observed two 55-gallon containers on a secondary containment skid. The floor in the area was constructed of concrete. The inspection team observed the following containers: One labeled "Hazardous Waste-Aerosols" and the second container labeled hazardous waste with a description of flammables. The flammable waste container was equipped with a funnel and grounded. Both containers were closed. Signage located in the area is a No Smoking sign, Hazardous Waste SAA sign, emergency contact list, and Unauthorized Personnel Keep Out sign. A fire extinguisher, eye wash station, and shower were located nearby, (*See Attachment 1, Photos 40-45*).

Tank Farm-Warehouse

The inspection team continued the inspection inside the warehouse, at the truck bay. There were three bays with two trucks parked at the time of the inspection. Both trucks were filled with only empty drums. A third truck pulled up before the inspection team left the area and it contained new product. Near the rear of the truck bay, there was a hazardous waste SAA. In the SAA, the inspection team observed two black 55-gallon containers containing waste PPE used during PCB remediation. One was labeled as "Hazardous Waste-Solids containing PCBs" and the other container was labeled as "Decon H2O containing-PCBs." The 55-gallon containers were closed, (*See Attachment 1, Photos 46-48*). The inspection team then proceeded to the tank farm storage area called the warehouse. This area contained raw material storage and empty container storage. Additionally, there were two tanks for the heat transfer fluid Dow Frost.

At the nitric acid filling area, the inspection team observed two 15-gallon containers with hoses inside each. Mr. Gumpper explained the excess nitric acid dripping from the hoses is collected in these containers and is re-used in the manufacturing area, (*See Attachment 1, Photos 49-50*). The inspection team also observed four containers of nitric acid product in the area within secondary containment. An old potash tank is located in the rear of the building and Mr. Mastropietro explained it will be removed as part of the PCB remediation. The tank is currently empty per Mr. Mastropietro. More sample retains and a flammable cabinet are located in a corner of the same room. The flammable cabinet contains new raw materials.

The inspection team continued the inspection outside the building at the acid tanks. The acid tanks on the side of the building include HCl/muriatic acid, nitric acid, and sulfuric acid. Mr. Mastropietro and Mr. Gumpper both explained that the tanks in the tank farm do not have any operating gauges or documentation to show the level of product inside the tanks. The inspection team then left the tank farm and continued the inspection at the Maintenance Garage.

Maintenance Garage

The inspection team was driven by Mr. Almanza to continue the inspection at the Maintenance Garage, (*See Attachment 1, Photo 51*). The Maintenance Garage is located between the Tank Farm and the Main Building. Mr. Mastropietro left the inspection team to attend a meeting. Mr. Almanza and Mr. Gumpper led the inspection team around the garage. A groundwater remediation system is located in the building which is managed by GCA Consultants. There is an old scrubber unit and an empty tank in the corner of the building. In the parts room, where spare parts for pumps and various tools are stored, the inspection team observed a 5-gallon container labeled "Used Oil", (*See Attachment 1, Photo 52*). Mr. Gumpper explained that this is from vehicle oil changes, which they no longer do on-site. Mr. Gumpper explained they stopped doing oil changes at the end of February 2023 because the previous maintenance mechanic left the company, and he was the one doing the oil changes.

While inside the Maintenance Garage, the inspection team asked Mr. Gumpper questions regarding the kettles in the manufacturing area, and the scrubbers attached to the kettles. Mr. Gumpper explained there are two wet scrubbers for the kettles. One for the dry chemical mixing/blending side and the other for the wet chemical mixing/blending side. Both scrubbers generate a liquid waste stream. The scrubber on the dry chemical side generates a liquid waste stream each day that must be discharged. Mr. Gumpper explained that approximately 20-30 gallons of this liquid scrubber waste is pumped from the scrubber tank into the sump each day. The scrubber tank which collects the liquid scrubber waste is 300-gallons. The scrubber tank is equipped with a water level which must be maintained. The excess liquid, above the water level is the amount of liquid waste that gets pumped to the sump each day from the scrubber.

Mr. Gumpper explained that the scrubber on the wet chemical side also generates a liquid waste stream which is gravity fed to the sump. The scrubber on the wet chemical side functions using scrubber balls, which are located inside the scrubber tank. The scrubber is equipped with two valves, a low valve and a top valve. The top valve stays open, while the low valve gets opened when the scrubber tank needs to be drained. Mr. Gumpper explained they drain at least once a year, in order to clean the scrubber balls. To clean the scrubber balls, Mr. Gumpper explained

that they place the scrubber balls into a tote with tap water, they do not use solvents. They agitate and mix the scrubber balls in the water and allow them to sit overnight. The next day, they discharge the water into the sump.

The scrubber waste from both scrubbers, that enter into the sump get pumped to the wastewater holding tank and get picked up by Covanta for recycling. Mr. Gumpper explained that he only remembers that the facility has used selenium and nickel for metals in their kettles. He explained that when the metals are used, the waste is segregated and sent out in containers as hazardous waste. Mr. Gumpper also explained that the rinse water generated by the kettles is generally on the higher pH side, and that they have a cut-off pH of 12. When the pH is high, near their cut-off, they will add acid to lower the pH. Mr. Gumpper explained they have the target range of between a pH of six and twelve. He explained the addition of acid to the waste is infrequent. Mr. Gumpper mentioned the scrubber waste is sent to the sump except if heavy metals are used in the process. The heavy metal rinse water is segregated and sent out as hazardous waste.

The inspection team concluded the walk-through portion of the inspection at the Maintenance Garage and was escorted back to the conference room in the Main Building to begin reviewing records.

V. RECORDS REVIEW

During the records review, the inspection team discussed with facility representatives what waste streams the facility is sending to the sump. The inspection team learned that the following waste streams are sent to the sump: critical raw materials, QC samples, waste from lab sinks, rinse water from washing out the kettles, scrubber waste liquid and wash water from washing the scrubber balls. All of the waste that enters the sump gets pumped to a holding tank. The company Covanta, formerly Globalcycle, picks up the waste in the tank for recycling of wastewater. Covanta recycles non-hazardous wastewater for reuse in industrial applications. The inspection team asked the facility if they have done any analysis on the waste that goes into the sump. Mr. Almanza explained they have not done analysis of the scrubber waste and rinse waters when generated. He explained that they know what they put into the kettles and know what would be in the water. There has been analysis on the waste inside the holding tank once it is all mixed, but not on the individual waste streams, at the point of generation. There was analysis conducted by Con-Test in years 2019 and 2020 on the waste inside the holding tank once it was combined. The inspection team learned the Covanta does annual waste analysis on the wastewater they pick up from the holding tank.

The facility contacted Covanta to answer questions the inspection team had regarding how they are recycling Hubbard-Hall's wastewater. They called Covanta and placed the phone on speaker for the inspection team to ask questions. The inspection team spoke with Steve Pozner, from Covanta, who explained that the company has been in business for nine years and is licensed by Massachusetts Department of Environmental Protection Mass DEP to recycle wastewater. He explained that the wastewater is filtered using with carbon and a solid filtration system to remove the solids. They then use the water in air quality control in scrubbers for the waste-to-energy plant. Mr. Pozner explained that they do not treat hazardous waste, and do not accept RCRA hazardous waste. He asked if EPA was telling him that the wastewater at Hubbard-Hall is RCRA

hazardous. Inspector Wilkinson explained to Mr. Pozner that EPA is not saying the wastewater is RCRA hazardous waste, that EPA is conducting an inspection for the RCRA hazardous waste program.

Manifests/LDRs

The inspection team reviewed hazardous waste manifests and land disposal restriction notices from shipments made by Hubbard-Hall for years 2022, and 2023. US Ecology and Clean Harbors are being used by Hubbard-Hall as their hazardous waste transporters. The inspection team noted that manifest 017172062FLE dated 3/24/2022 was not signed by the destination facility.

Inspection Logs

The inspection team reviewed inspection logs for 2022 and 2023. The inspection team noted the following observations in the inspection log review.

2023

- No inspection documented on the Tank Farm SAA for the weeks of May 7th, April 30th, or April 16th.
- No inspection documented on the SAA at New Lab for the week of May 7th.

2022

- No inspection documented on the Tank Farm SAA for the weeks of December 25th, September 4th, July 3rd, or April 3rd. The Tank Farm SAA was inspected twice by the facility on May 18th.
- No inspection documented on the HWAA at the warehouse for the week of July 3rd.

Training/Job Descriptions

The inspection team reviewed Hubbard-Hall's RCRA training plan, and proof of training for years 2022, 2021 and 2020. The training was conducted by Loureiro, Hubbard-Hall's contractor. The inspection team reviewed some job descriptions at Hubbard-Hall also.

Contingency Plan

The inspection team reviewed Hubbard-Hall's contingency plan. The last update to the plan was done on 1/24/2023. The inspection team reviewed the certified mail receipts showing Hubbard-Hall had sent the contingency plan to Waterbury Hospital Emergency Department, Waterbury Police Department, State of CT DEEP, and Waterbury Fire Department.

Waste Determination Documents

The inspection team requested waste determination documentation, and/or analytical data for the rinse water from rinsing out the kettles, any sludge cleanouts from the sump under the kettles, and for the waste generated by the scrubbers. The inspection team was given and reviewed a waste profile for alkaline sump sludge for the sump in the Tank Farm, not the rinse water sump

located in the Main Building for the kettles. The facility did not have a waste determination or analytical data for the rinse water from rinsing out the kettles, sludge cleanouts from the sump under the kettles, or for the waste generated by the scrubbers. Mr. Morris explained that the sump was last cleaned more than two years ago. He explained the liquid from the sump has approximately 1% solids and they will characterize the sludge in July of this year when it is cleaned next.

The inspection team was given and reviewed a waste profile for the wastewater in the holding tank, completed by Clear Flo Technologies in 2017 that stated it was non-hazardous. The waste profile stated the waste determination was made by process knowledge and analytical data by Con Test Analytical Laboratories (“Con-Test”). The facility provided the analytical results of the wastewater in the holding tanks conducted by Con Test for years 2019 and 2020. The data showed concentrations of RCRA constituents, but all levels were below the regulatory limits. Additionally, the facility provided analytical results done by Tunxis Laboratories, LLC on the wastewater in 2019, which showed concentrations of RCRA constituents, which all but barium were under the regulatory limits. The test showed that the concentration of barium was 211 mg/L.

The Facility did not have any documentation of waste determinations or analytical data at the point of generation for the rinse out of the kettles that enter the sump, any sludge cleanouts from the sump under the kettles, or for the waste generated by the scrubbers.

VI. INSPECTION OUTBRIEF

An out-brief conference was conducted on June 7, 2023. The following personnel were present:

EPA:	Cheryl Wilkinson Linda Brolin Ryan Maisano
Hubbard-Hall:	Jenner Almanza Gerard Mastropietro William Morris- Loureiro

The inspection team noted that no violations were determined at this time. The inspection team discussed the following areas of concern that were observed during the inspection.

1. Container Management:
 - a. The container collecting waste from the atomic absorption spectrometer, located under the bench in the New Lab did not have a hazardous waste label.
 - b. The label on the hazardous waste container in Tank Farm SAA only says “Flammables”, for a description of the waste.
2. Waste Determinations

- a. Container of 1,1,1 trichloroethane.
 - b. Two containers of product design material, located under the cabinet in New Lab.
 - c. The rinse water from the kettles that enter the sump, at the point of generation.
 - d. Sludge cleanouts from the sump under the kettles.
 - e. Waste generated by the scrubbers.
3. Other areas of concern:
- a. Missing 7 weeks of Tank Farm inspections and one week for both the New Lab and HWAA at the warehouse.

The inspection team also noted the following management practice:

- a. Chemical storage of new product in the Old Lab is done alphabetically and some incompatible chemicals are potentially being stored together.

The inspection team explained the next steps in the inspection process, and how an inspection report will be written and provided to the facility within 60 days of the inspection. Once complete, the inspection team will discuss the areas of concern with management and determine if any violations were found. Once a violation determination is made, a decision on what enforcement follow up will be appropriate based on violations found. The inspection team explained that the agency has the following options for potential enforcement, lowest would be a notice of violation; next highest would be an enforcement action, with or without penalty; and in egregious situations a deferral to the Department of Justice or Criminal could be made.

The inspection team stated that if the Facility makes any changes as a result of the areas of concern, to please inform and send documentation to Inspector Wilkinson. The inspection team thanked Hubbard-Hall representatives for their time, the inspection team signed out of the facility, and left the site.