

RCRA Inspection Report

1) Inspector and Author of Report

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U.S. Environmental Protection Agency, Region 4
Enforcement and Compliance Assurance Division
Chemical Safety and Land Enforcement Branch
RCRA Enforcement Section
61 Forsyth Street, S.W.
Atlanta, Georgia 30303

2) Facility Information

University of Louisville - EPSC
1810 Arthur St Louisville, KY 40208

EPA ID#: KY0001012012
NAICS #: 61131 – Colleges, Universities, and
Professional Schools

3) Responsible Officials

Cathy Price
Hazardous Materials & Environmental
Operations Manager
cathy.price@louisville.edu

4) Inspection Participants

Cathy Price, University of Louisville
John Morris, University of Louisville

Denise Dzurenka, KDEP
Scott Gerstner, KDEP
Mark Anthony Relon, USEPA

5) Date of Inspection

August 22, 2023 9:05am

6) Applicable Regulations¹

Resource Conservation and Recovery Act (RCRA) Sections 3002 (42 U.S. Code – Annotated U.S.C.A. 6925 and 6927), and 40 Code of Federal Regulation (C.F.R.) Parts 260 - 270, 273, 278, & 279; Kentucky Revised Statutes Title XVIII, Chapter 224, Subchapter 46-Hazardous Waste et seq. (2006), and Title 401 of the Kentucky Administrative Regulations (K.A.R.) Chapters 30 through 38, 43 and 44 (2006); and Hazardous Waste Permit 48952.

Pursuant to 401 KAR 39:005, Section 1 [40 C.F.R. § 260.10], a large quantity generator of hazardous waste (LQG) is a generator who generates greater than or equal to 1,000 kilograms (2,200 pounds) of non-acute hazardous waste in a calendar month.

Pursuant to 401 KAR 39:080, Section 3(1) [40 C.F.R. § 273.9], a small quantity handler of universal waste (SQHUW) is a universal waste handler who does not accumulate 5,000 kilograms or more of universal waste (batteries, pesticides, mercury-containing equipment, lamps, or aerosol cans, calculated collectively) at any time.

¹ As the State's authorized hazardous waste program operates in lieu of the federal RCRA program, the citations of those authorized provisions will be to the authorized State program. However, for ease of reference, the federal citations will follow in brackets.

7) Purpose of Inspection

The purpose of this inspection was to conduct an unannounced compliance evaluation inspection to determine University of Louisville – EPSC (hereinafter, “EPSC” or the “Facility”) compliance with the conditions of its RCRA Hazardous Waste Facility Operating Permit [48952], the applicable requirements of RCRA and the corresponding Kentucky regulations. This was an EPA lead inspection.

8) Facility Description

The University of Louisville is the owner, operator, and landowner for the EPSC. The University of Louisville was established in 1996 and opened in 1998. Staff from the Department of Environmental Health and Safety operate the facility. Currently, there are two to three employees operating the facility. The facility’s operating days and times are from Monday to Friday, 8:00am to 4:30pm excluding holidays. Access to the facility was through a locked entry door which can be opened by security personnel present or through personnel with entry card access.

The permitted storage area is a composite steel and brick building with concrete floors of about 4,000 square feet with subdivision for separation of incompatibles. A small loading dock is also present. Aside from secondary containment and a 250-gallon used oil (i.e. non-hazardous waste) tank, no tanks are present (i.e. only container management of hazardous waste is present).

The facility is a Large Quantity Generator (LQG) and a storage and treatment facility with their latest notification dated January 4, 2023. Hazardous wastes generated at the facility include, but are not limited to, the EPA waste codes D001 through D011, D016 through D024, D026 through D029, D035 through D042, F001 through F005, F027, various P-listed codes and U-listed codes. The Facility currently has a Hazardous Waste Management Facility Permit [48952] issued on January 1, 2023 and expires on January 1, 2033.

The EPSC is a repository for a wide variety of both hazardous and non-hazardous wastes from university operations (only). Hazardous waste storage and treatment may occur as a precursor to eventual shipment to an off-site treatment, storage, or disposal facility. The EPSC accepts waste from only the ShelbyHurst Campus, the Belknap Campus, and the Health Science Center (HSC) Campus. Most of the hazardous waste managed at the EPSC are from research labs, trade shops, art studios, athletic facilities, teaching laboratories, and routine maintenance.

The area surrounding the facility is urban with the university campus and interstate nearby.

9) Previous Inspection History

Kentucky Department for Environmental Protection (KDEP) has conducted three (3) RCRA CEIs at the subject facility between 2020 and 2023 and found no violations during those inspections.

On June 15, 2022, KDEP conducted the most recent RCRA CEI at the subject facility and found no apparent violations of RCRA’s requirements.

10) Opening Conference

On August 22, 2023, EPA inspector Mark Anthony Relon, accompanied by Kentucky inspectors Denise Dzurenka and Scott Gerstner, arrived at EPSC at approximately 9:05am. Cathy Price, Hazardous Materials & Environmental Operations Manager, immediately received the inspectors. Cathy Price, and the inspectors were joined by John Morris, for the opening conference. The inspectors introduced themselves, showed their credentials to Cathy Price and John Morris, and explained the purpose of the visit.

The inspectors described the anticipated use of equipment (digital camera) during the inspection and provided a request for records. The EPA inspector explained that the Small Business Regulatory Enforcement Fairness Act's classification of a "small business" is generally set by the Small Business Administration using the business' SIC/NAICS code and annual receipts or number of employees. A copy of the EPA's information sheet for small businesses can be found at <https://www.epa.gov/sites/production/files/2017-06/documents/smallbusinessinfo.pdf>. The EPA inspector also discussed the company's ability, pursuant to 40 C.F.R. § 2.203, to assert a business confidentiality claim for information submitted to EPA. The company did not assert a business confidentiality claim.

Cathy Price provided an overview of the facility's history and current operations during the opening conference. The inspection participants also discussed health and safety protocols and required personal protective equipment before Facility representative led the inspectors on a tour of the Facility operations.

11) Inspection Observations

Room 108 (Receiving Room)

EPSC manages a hazardous waste permitted storage area in the Receiving Room. The Receiving Room includes segregated sections categorized by hazardous characteristics of each waste generated from the university. The area was identified with a sign which read "danger, hazardous waste storage." EPSC manages ignitable and/or reactive waste in this permitted storage area, and the inspectors observed "No Smoking" signs inside the area.

The permitted storage area is equipped with an internal communications or alarm system capable of providing immediate emergency instruction to facility personnel; it is equipped with a device capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams; it is equipped with portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment; and it is equipped with water to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray system.

Oxidizers/Peroxides Section

EPSC manages oxidizers and peroxides in the Oxidizers/Peroxides Section that are generated by research labs, teaching labs, and art studios within the university. The inspectors observed one 1-liter container in this area (Figure 1). The container was located in a plastic bin on a metal shelving rack with the section labeled (Figures 2-4). It was equipped with a bottle cap, which was closed. The container was labeled D001, D002 hazardous waste acid, and identified with an indication of the hazards of the contents.

Inorganic Acids Section

EPSC manages inorganic acids in the Inorganic Acids Section that is generated by research labs, teaching labs, and art studios within the university (Figure 5). The inspectors observed one 55-gallon container in this area (Figure 6). The container was located adjacent to the section's metal shelving rack, and it was equipped with a drum cover lid, which was closed. The container was labeled D002 hazardous waste Ryd lyme (<10% HCL) and identified with an indication of the hazards of the contents (Figures 7-8).

Non-Flammable Organics Section

EPSC manages non-flammable organics in the Non-Flammable Organics Section that is generated by research labs, teaching labs, and art studios within the university. The inspectors observed two (2) 55-gallon containers in this area (Figure 11). The containers were located adjacent to the section's metal shelving rack (Figures 9 and 11), and were equipped with drum cover lids, which were closed. One of the containers were labeled with waste code F002 and the other container was labeled F002, F003, and D033. Both containers were labeled hazardous waste Formalin Debris, F-listed, and identified with an indication of the hazards of the contents (Figure 10).

Heavy Metal Section

EPSC manages heavy metals in the Heavy Metal Section that are generated by research labs, teaching labs, and art studios within the university (Figure 12). The inspectors observed two (2) 55-gallon containers and one 35-gallon container in this area (Figures 13 and 14). The containers were located adjacent to the section's metal shelving rack, and were equipped with drum cover lids, which were closed. One 55-gallon container was labeled D011 hazardous waste Dental Amalgam and identified with an indication of the hazards of the contents. The other 55-gallon container was labeled D008 hazardous waste solid debris with metals and not properly identified with an indication of the hazards of the contents.

Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(5)(i)], which is a condition of the LQG Permit Exemption, a generator must mark or label its containers with the following: the words "Hazardous Waste"; an indication of the hazards of the contents; and the date upon which each period of accumulation begins clearly visible for inspection on each container.

The 35-gallon container was labeled D007 hazardous waste Blasocut cooling oil with chromium and not properly identified with an indication of the hazards of the contents.

Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(5)(i)], which is a condition of the LQG Permit Exemption, a generator must mark or label its containers with the following: the words "Hazardous Waste"; an indication of the hazards of the contents; and the date upon which each period of accumulation begins clearly visible for inspection on each container.

Inspectors observed four (4) 3-gallon containers in this area also (Figures 15-17). The containers were properly labeled and identified with an indication of the hazards of the contents.

Reactives Room

EPSC manages reactive wastes in the Reactives Room that is generated by research labs, teaching labs, and art studios within the university (Figure 20). The inspectors observed two (2) containers in this area (Figure 19). The containers were located inside a blast-proof refrigerator within the room (Figure 18), and were equipped with bottle caps, which were closed. The containers were properly labeled and identified with an indication of the hazards of the contents.

Bulking/Blending Room

EPSC manages wastes in the Bulking/Blending Room that are generated by research labs, teaching labs, and art studios within the university (Figure 21). The inspectors observed one 55-gallon container in this area (Figures 22 and 23). The container was located underneath a ventilation area within the room, and was equipped with a drum cover lid, which was closed. The container was labeled F002, F003, F005 hazardous waste Formalin Debris, F-listed, and identified with an indication of the hazards of the contents.

Flammables Room

EPSC manages flammable waste in the Flammables Room that is generated by research labs, teaching labs, and art studios within the university. The inspectors observed six (6) 55-gallon containers in this area (Figures 24-28). The containers were equipped with drum cover lids, which were closed. The first 55-gallon container was labeled D001, F003, F005, U002, U003, U080, U112, and U122 hazardous waste non hal solvents, and identified with an indication of the hazards of the contents. The second 55-gallon container was labeled D001, F003, F005, and U122 hazardous waste non hal solvents, and identified with an indication of the hazards of the contents. The third 55-gallon container was labeled D001, D007, F003, F005, U002, and U154 hazardous waste non hal solvents, and identified with an indication of the hazards of the contents. The fourth and fifth 55-gallon containers was labeled D001 hazardous waste aerosol cans and identified with an indication of the hazards of the contents. The sixth 55-gallon container was labeled D001, D007 hazardous waste 3-D printing with debris sand/oil and identified with an indication of the hazards of the contents.

Organic Acids Section

EPSC manages organic acid wastes in the Organic Acids Room that are generated by research labs, teaching labs, and art studios within the university (Figure 29). The inspectors observed seven (7) plastic bins with containers in this area. The containers were equipped with bottle caps, which were closed. The containers were properly labeled and identified with an indication of the hazards of the contents.

PCB's Section:

EPSC manages polychlorinated biphenyls (PCBs) in the PCB's Section (Figure 30). Inspectors observed one 2-foot by 1-foot box container of PCBs (Figure 31).

Universal Waste Storage Area

EPSC manages universal waste batteries in the Universal Waste Storage Area. The inspectors observed four (4) containers of universal waste batteries in this area during the inspection. One 35-gallon container, one 8-gallon container, two 5-gallon containers, and one 2-foot by 1-foot box container of batteries, which were closed and marked with an accumulation start date, was

labeled universal waste used batteries (Figures 32 and 33). The oldest date observed on any container of batteries was February 13, 2023.

Acute Toxic Section

EPSC manages acutely toxic wastes in the Acute Toxic Section that is generated by research labs, teaching labs, and art studios within the university (Figures 34). The inspectors observed five (5) plastic bins with containers in this area (Figure 35). The containers were equipped with bottle caps, which were closed. The containers were properly labeled and identified with an indication of the hazards of the contents.

12) Records Review

Contingency Plan and Quick Reference Guide (QRG):

The actions that facility personnel should take in response to an emergency are described in the facility's Contingency Plan, which was last updated on September 23, 2022.

The plan describes actions facility personnel must take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

The plan describes arrangements agreed to with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers, local hospitals or the Local Emergency Planning Committee.

The plan lists the names and emergency telephone numbers for persons identified as emergency coordinators. Cathy Price is listed as the primary emergency coordinator, and the other individuals are listed in the order in which they will assume responsibility as alternates.

The plan includes a list of all emergency equipment at the facility. The list includes fire extinguishing systems, spill control equipment, communications and alarm systems, and decontamination equipment. The list appears to be up to date. The plan includes the location and a physical description of each item on the list, and a brief outline of its capabilities.

The plan includes an evacuation plan for personnel. This plan describes signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes.

A copy of the Contingency Plan (and its quick reference guide) was most recently submitted to the police department, fire department, hospital, State and local emergency response teams and the Local Emergency Planning Committee on September 23, 2022.

The quick reference guide includes the types/names of hazardous waste in layman's terms and the associated hazard associated with each hazardous waste present at any one time; the estimated maximum amount of each hazardous waste that may be present at any one time; the identification of any hazardous wastes where exposure would require unique or special treatment by medical or hospital staff; a map of the facility showing where hazardous wastes are generated, accumulated and treated and routes for accessing these wastes; a street map of the facility in relation to surrounding businesses, schools and residential areas; the locations of water supply;

the identification of on-site notification systems; and the name of the emergency coordinator(s) and emergency telephone number(s).

Training Records:

The inspectors reviewed facility job descriptions and employee names that were provided. Each description included the requisite skill, education, or other qualifications, and duties of facility personnel assigned to that position.

EPSC provided a written description of the type and amount of both introductory and continuing training to be given to each person filling the positions listed above. The inspectors reviewed records of employee hazardous waste training completed in 2020, 2021, and 2022.

Waste Manifest and Land Disposal Restriction (LDR) Records:

The inspectors reviewed available hazardous waste manifest records and land disposal restriction forms for shipments of hazardous waste sent since calendar year 2020. Hazardous waste manifest records show that D006, D007 hazardous waste liquid (Cadmium, Chromium), D001, D002, F003, F005 hazardous waste liquids (IPA, Methanol), and D001, F003, F005 hazardous waste liquids (Acetone, Methanol), are routinely shipped to EPSC (KY0001012012), Veolia ES Technical Solutions, L.L.C. (ILD098642424), and Veolia ES Technical Solutions (WID003967148), and the most recent shipment was made on August 21, 2023.

Weekly Inspection Records:

The inspectors reviewed EPSC's available records of inspections of the hazardous waste central accumulation area (CAA) since calendar year 2020. The inspection log includes a checklist to record observations about leaking containers and for deterioration of containers caused by corrosion or other factors. The inspection log includes a checklist to record observations about aisle space, visible container labels, complete container labels, closed lids and bungs, condition of containers, container stacking, container storage time, housekeeping, emergency communication, fire extinguisher, spill response kit, etc. The records include the date and time of the inspection and the name, signature and initials of the employee conducting the inspection. Employees do routinely record inspection observations and subsequent follow-up actions on the inspection log. No inspection records were provided between the week(s) of March 4, 2020 to March 13, 2020 and July 20, 2022 to July 28, 2022.

Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(1)(v)], which is a condition of the LQG Permit Exemption, a generator is required to, at least weekly, inspect central accumulation areas looking for leaking containers and for deterioration of containers caused by corrosion or other factors.

Room 108 Daily Inspection Records:

Inspectors observed no corrected action dates for "Sensor #1 out of service, replacement pending" since July 22, 2019. Facility personnel stated that the university is still resolving funding allocations for the department and will receive funding for the sensor once an agreement has been made.

Inspectors observed no corrected action dates for “Overpack in 100g poly #249965 (crack in lid).” Facility personnel stated that it was being addressed at the time the comment was made.

Pursuant to 401 KAR 39:090, Section 1 [40 C.F.R. § 264.15(d)], the owner or operator must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of the inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

Pursuant to HW Permit 48952, II.J.3. Inspection Schedules, as required by 40 C.F.R. § 264.15, for a period of three (3) years or longer if specified otherwise in the Permit.

13) Closing Conference

The inspectors conducted the exit meeting at 11:41am with Cathy Price and John Morris. During this meeting, the inspectors stated their preliminary conclusions of the inspection.

14) List of Attachments

Attachment 1 – Photo Log:

15) Signed

MARK ANTHONY RELON Digitally signed by MARK ANTHONY RELON
Date: 2023.12.08 08:27:07 -08'00'

Mark Anthony Relon
Environmental Engineer

16) Concurrence

ARACELI CHAVEZ Digitally signed by ARACELI CHAVEZ
Date: 2023.12.08 11:32:23 -05'00'

Araceli B. Chavez
Chief
RCRA Enforcement Section

Attachment 1 – Photo Log

35 Photos taken on: August 22, 2023

Photos taken by: Mark Anthony Relon

Photos taken with: Kodak PixPro Digital Camera

EPA Property Tag: SX9088

Attachment 1- University of Louisville RCRA CEI Photographs

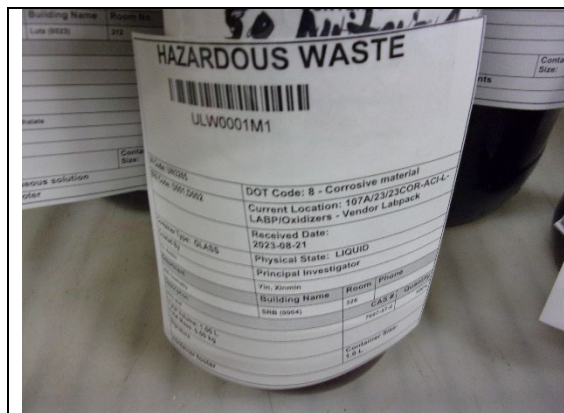


Figure 1: 9:40 AM Oxidizers/Peroxides Section
One 1-liter container with hazardous waste label,
received date, and indication of the hazards of the
contents.



Figure 2: 9:40 AM Oxidizers/Peroxides Section
Example photo of located containers properly closed,
labeled, and placed in bins.



Figure 3: 9:40 AM Oxidizers/Peroxides Section
Example photo of located containers properly closed,
labeled, and placed in bins.



Figure 4: 9:41 AM Oxidizers/Peroxides Section
Section overhead display.



Figure 5: 9:41 AM Inorganic Acids Section Section overhead display.



Figure 6: 9:43 AM Inorganic Acids Section (Photo 1 of 3) One 55-gallon container with hazardous waste label, accumulation start date, and indication of the hazards of the contents.



Figure 7: 9:43 AM Inorganic Acids Section (Photo 2 of 3) One 55-gallon container with hazardous waste label, accumulation start date, and indication of the hazards of the contents.

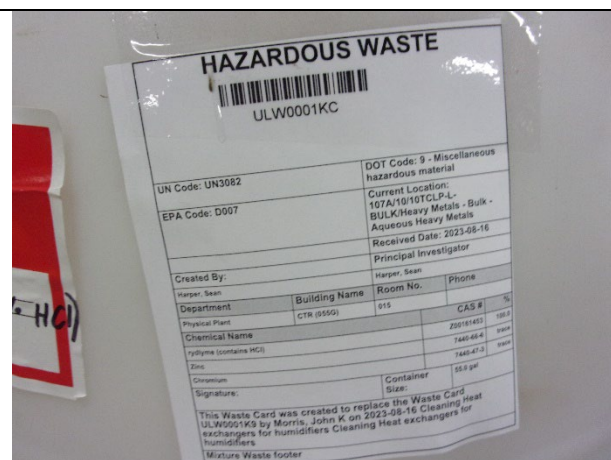


Figure 8: 9:43 AM Inorganic Acids Section (Photo 3 of 3) One 55-gallon container with hazardous waste label, accumulation start date, and indication of the hazards of the contents.



Figure 9: 9:44 AM Non-Flammable Organics Section
Section overhead display.

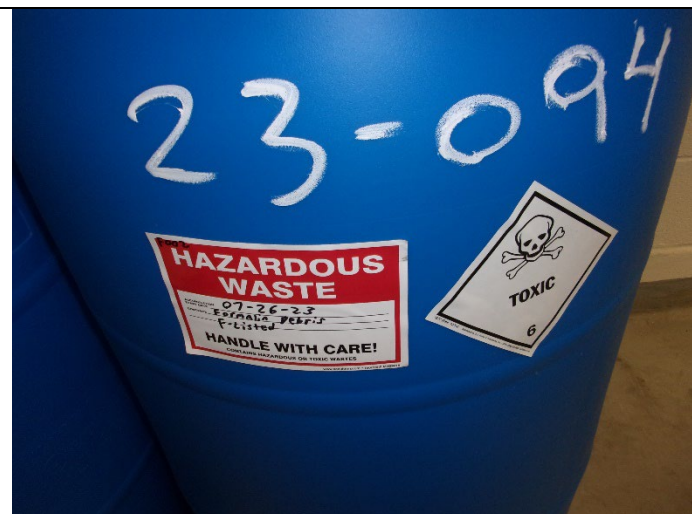


Figure 10: 9:49 AM Non-Flammable Organics Section
(Photo 1 of 2) One 55-gallon container with hazardous waste
label, accumulation start date, and indication of the hazards of
the contents.



Figure 11: 9:50 AM Non-Flammable Organics Section
(Photo 2 of 2) Two (2) 55-gallon containers with
hazardous waste labels, accumulation start dates, and
indication of the hazards of the contents.



Figure 12: 9:51 AM Heavy Metal Section
Section overhead display.



Figure 13: 9:52 AM Heavy Metal Section
(Photo 1 of 2) Two (2) 55-gallon containers with hazardous waste label, accumulation start date, and indication of the hazards of the contents. One of the 55-gallon containers were not properly identified with an indication of the hazards of the contents.

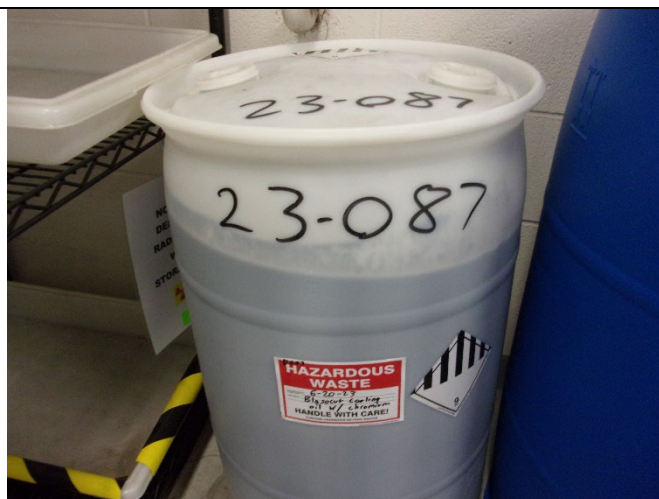


Figure 14: 9:52 AM Heavy Metal Section
One 35-gallon container with hazardous waste label, accumulation start date, and no proper indication of the hazards of the contents.



Figure 15: 9:57 AM Heavy Metal Section
Four (4) 3-gallon containers with hazardous waste label, accumulation start date, and an indication of the hazards of the contents

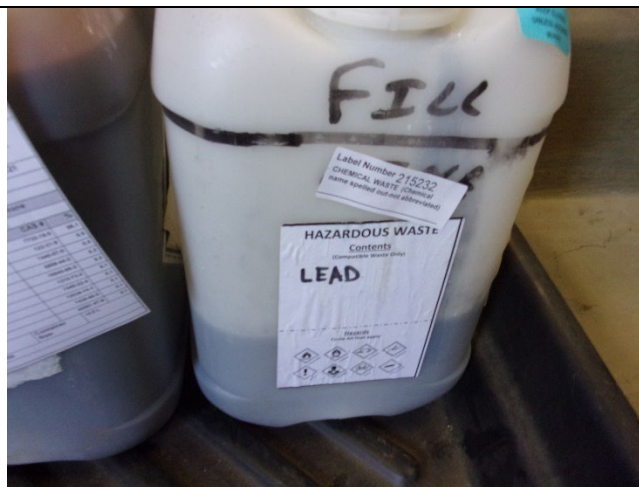


Figure 16: 9:57 AM Heavy Metal Section
Example photo for a close-up label.

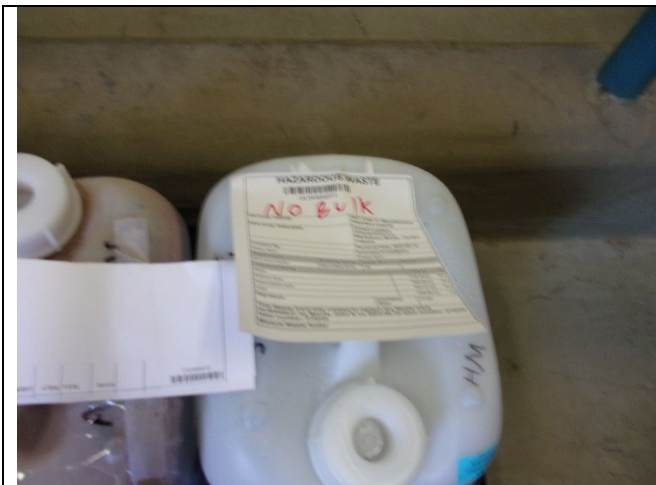


Figure 17: 9:57 AM Heavy Metal Section
Example photo for a close-up label.



Figure 18: 9:58 AM Reactives Room
Display label for blast-proof refrigerator.

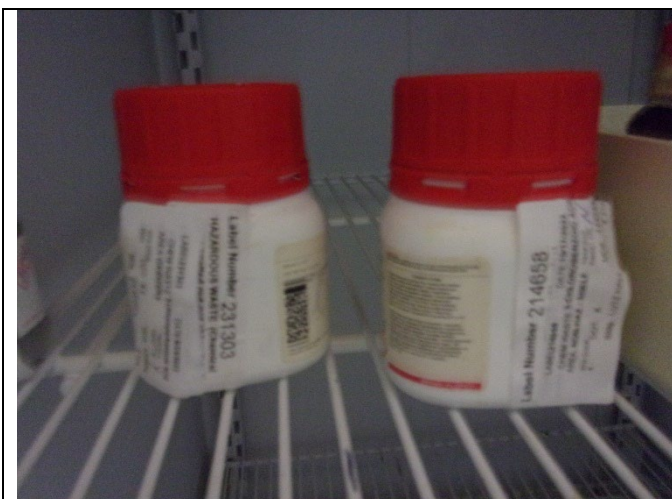


Figure 19: 9:59 AM Reactives Room
Two (2) containers with hazardous waste label, accumulation start date, and an indication of the hazards of the contents.



Figure 20: 10:00 AM Reactives Room
Display label posted up on Reactives Room door.



Figure 21: 10:00 AM Bulking/Blending Room
Display label posted up on Bulking/Blending Room door.



Figure 22: 10:08 AM Bulking/Blending Room
(Photo 1 of 2) One 55-gallon container with hazardous waste label, accumulation start date, and indication of the hazards of the contents.



Figure 23: 10:09 AM Bulking/Blending Room
(Photo 2 of 2) One 55-gallon container with hazardous waste label, accumulation start date, and indication of the hazards of the contents.



Figure 24: 10:11 AM Flammables Room
Two of six 55-gallon containers with hazardous waste label, accumulation start date, and indication of the hazards of the contents.



Figure 25: 10:12 AM Flammables Room
Three of six 55-gallon containers with hazardous waste label, accumulation start date, and indication of the hazards of the contents.

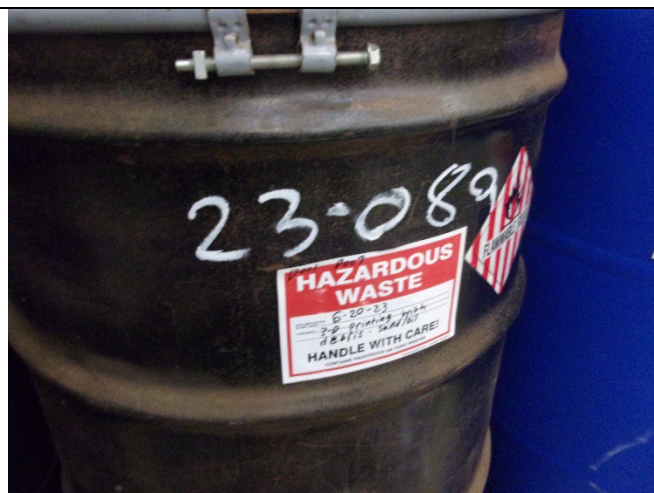


Figure 26: 10:12 AM Flammables Room
Four of six 55-gallon containers with hazardous waste label, accumulation start date, and indication of the hazards of the contents.



Figure 27: 10:12 AM Flammables Room
Five of six 55-gallon containers with hazardous waste label, accumulation start date, and indication of the hazards of the contents.

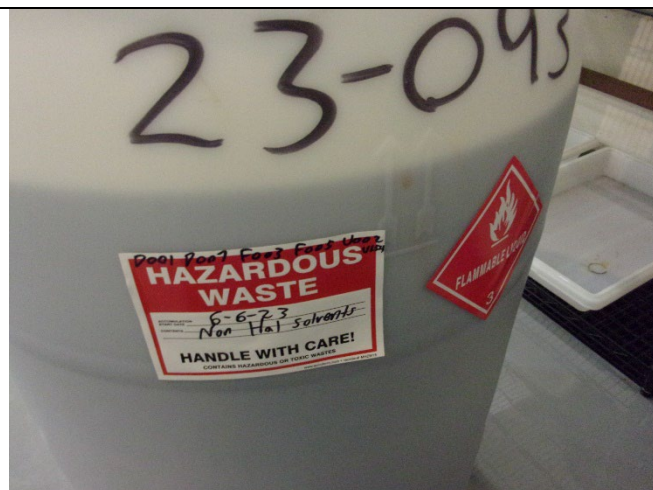


Figure 28: 10:13 AM Flammables Room
Six of six 55-gallon containers with hazardous waste label, accumulation start date, and indication of the hazards of the contents.



Figure 29: 10:17 AM Organic Acids Section
Fume hood with designated unwanted materials area.



Figure 30: 10:18 AM PCB's Section
Display label posted up on PCB's Section.



Figure 31: 10:18 AM Universal Waste Section
One 35-gallon container of PCBs observed.



Figure 32: 10:18 AM Universal Waste Section
One 35-gallon container, one 8-gallon container, one 5-gallon container, and one 2-foot by 1-foot box container of universal waste batteries observed.



Figure 33: 10:20 AM Universal Waste Section
One 5-gallon container of universal waste batteries observed.



Figure 34: 10:20 AM Acute Toxic Section
Display label posted up on the Acute Toxic Section.



Figure 35: 10:21 AM Acute Toxic Section
Five (5) plastic bins with containers observed.