



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Solid Waste Management
Knoxville Environmental Field Office
3711 Middlebrook Pike
Knoxville, Tennessee 37921-6538

July 6, 2023

Sandra Prior, Director
University of Tennessee, Environmental Health & Safety
5723 Middlebrook Pike, Suite 119
Knoxville, TN 37921

CERTIFIED MAIL
#9489 0090 0027 6129 2611 44
RETURN RECEIPT REQUESTED

RE: Hazardous Waste Compliance Evaluation Inspection
Notice of Violation
University of Tennessee, Austin Peay Building
TN0 00-087-9809

Dear Ms. Prior:

On June 21, 2023, the Division of Solid Waste Management (DSWM) conducted a Hazardous Waste Compliance Evaluation Inspection (CEI) at the referenced facility. The inspection was conducted to evaluate the facility's compliance with the Tennessee Hazardous Waste Management Act, TCA §68-212-101 et seq., with the Used Oil Collection Act of 1993 TCA 68-211, Part 10, and with Tennessee's Hazardous Waste Regulations (Division Rule Chapter 0400-12-01) promulgated pursuant to those Acts. Violations of Tennessee's hazardous waste management regulations were identified during the inspection. The attached Inspection Report/Notice of Violation (NOV) details the inspection findings. University of Tennessee, Austin Peay Building must initiate immediate actions to correct outstanding violations. The DSWM will conduct a follow-up inspection within thirty days to verify the facility's compliance status.

The DSWM appreciates the courtesy and cooperation shown by University of Tennessee, Austin Peay Building during the inspection. Should you have any questions concerning this report, please do not hesitate to contact me at 865-804-2277 or by email at Pamela.Rudd@tn.gov.

Sincerely,

Pamela Rudd

[Pamela Rudd \(Jul 6, 2023 13:26 EDT\)](#)

Pamela Rudd, CHMM
Environmental Consultant

cc: Lisa Hughey, Director, DSWM
 Craig Almanza, Deputy Director of Central Office Operations, DSWM
 Rob Ashe, Deputy Director of Field Office Operations DSWM
 Beverly Philpot, Hazardous Waste Program Manager, DSWM
 Chris Lagan, Compliance and Enforcement Program Manager, DSWM
 John Webb, Environmental Consultant, DSWM
 Records.SWM@tn.gov
 WasteBin Site ID 95648

HAZARDOUS WASTE INSPECTION REPORT

SITE/PHYSICAL LOCATION

University of Tennessee, Austin Peay Building
Room 123, Austin Peay Building
Knoxville, TN 37996
TN0 00-087-9809
Knox County

PRIMARY CONTACTS

Michael Barnhart
Program Leader, Environmental Programs
University of Tennessee, Environmental Health & Safety
5723 Middlebrook Pike, Suite 119
Knoxville, TN 37921
865-974-5084

DATE AND START TIME OF INSPECTION

June 21, 2023/ 9:00 a.m.

INSPECTION PARTICIPANTS

Michael Barnhart, Program Leader, Environmental Programs
University of Tennessee, Environmental Health & Safety
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Michael Rotella, Supervisor, Hazardous Waste Management
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REPORT PREPARED BY

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Knoxville Environmental Field Office
3711 Middlebrook Pike
Knoxville, TN 37921
865-804-2277/ Pamela.Rudd@tn.gov

PURPOSE OF INSPECTION

This routine inspection was conducted to evaluate University of Tennessee, Austin Peay Building's compliance with the applicable requirements of Tennessee's Hazardous Waste Management Act T.C.A. 68-212, Parts 1 and 3, with the Used Oil Collection Act of 1993 T.C.A. 68-211, Part 10, and with the regulations adopted pursuant to those Acts. Inspection findings are based upon site observations, file review, and verbal and written information provided by facility personnel during the inspection (including the identification of all physical locations where wastes are generated and managed by the facility). The facility is encouraged to advise the DSWM of any information in the report or attached letter that the facility deems to be incorrect. Any such communication should be submitted to the Division within fifteen (15) days following receipt of this report. The last inspection conducted at this facility by the DSWM was performed on June 8, 2021.

FACILITY DESCRIPTION

The EPA ID number assigned to "University of Tennessee, Austin Peay Building" comprises several buildings on the main campus (Image 1). The buildings include Hesler Biology, Science and Engineering Research Facility, Dougherty, Dabney- Buehler, Strong, Mossman, Senter, and the Fleming Center. Hazardous waste is generated from research and teaching laboratories located throughout the referenced buildings.

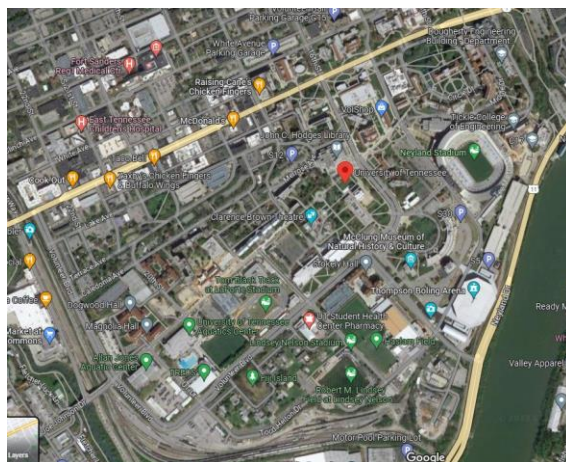


Image 1: University of Tennessee, Austin Peay Building (aka. UT Main Campus) in Knoxville, TN.

GENERATOR STATUS

University of Tennessee, Austin Peay Building is a large quantity generator of hazardous waste. The facility is also a small quantity handler of universal waste which is generated throughout campus and managed in a central location at the Fleming Center. Used oil is generated intermittently throughout campus; however, most used oil is handled by Facility Services on campus who maintains their own separate EPD ID number.

HAZARDOUS WASTE STREAMS GENERATED

- WS #1 **Mixed Lab Waste** (D001, D002, D003, D005, D006, D007, D008, D009, D011, D016, D018, D019, D022, D023, D024, D027, D038, D039, F002, F003, F004, F005, P022, P030, P077, P087, P098, P105, P106, P119, P120, U010, U044, U052, U122, U144, U188, U201, U240) generated from research and teaching laboratories at an estimated maximum of 5,418 pounds per month. The facility generated 14,167 pounds in 2022.
- WS #2 **Waste Organic Solvents** (D001, D002, D018, D019, D022, F002, F003, F005) generated from research and teaching laboratories at an estimated maximum of 29,164 pounds per month. The facility generated 24,042 pounds in 2022.
- WS #3 **Metal Acid Waste** (D001, D002, D005, D008, D011) generated from research and teaching laboratories at an estimated maximum of 7,205 pounds per month. The facility generated 5,766 pounds in 2022.
- WS #4 **Waste Flammable Liquid, Corrosive** (D001, D002, F003, F005) generated from research and teaching laboratories at an estimated maximum of 16 pounds per month. The facility did not generate this waste stream in 2022.
- WS #5 **Waste Scintillation Vials** (D001, F003, F005) generated from research and teaching laboratories at an estimated maximum of 100 pounds per month. The facility generated 58 pounds in 2022.
- WS #6 **Waste Compressed Gas** (D001, D002, D003, U029, U135) generated from the disposal of unused research material at an estimated maximum of 1,540 pounds per month. The facility generated 635 pounds in 2022.
- WS #7 **Waste Compressed Gas, Corrosive Oxidizer** (D001, D002, D003, U135) generated from the disposal of unused research material at an estimated maximum of 1 pound per month. The facility did not generate this waste stream in 2022.
- WS #8 **Waste Mixed Pesticides** (D001, D020) generated from research and teaching laboratories at an estimated maximum of 1,000 pounds per month. The facility did not generate this waste stream in 2022.

- WS #9 **Debris and Various Solid Waste** (D001, D004, D008, U122, U238) generated from research and teaching laboratories at an estimated maximum of 1,500 pounds per month. The facility generated 374 pounds in 2022.
- WS #10 **Waste Building Components and Soil Contaminated with Lead** (D008) is a one-time generation from a demolition project in 2009 at an estimated maximum of 32,500 pounds per month. The facility did not generate this waste stream in 2022.

INSPECTION FINDINGS

The Division inspector arrived at the University of Tennessee Environmental Health and Safety Office (UT EH&S) on Middlebrook Pike at 9:00 a.m. to announce the inspection at the front desk. Shannon Loyd (Hazardous Waste Specialist) and Peyton Martz (Hazardous Waste Specialist) arrived promptly and directed the inspector to a nearby conference room to review paperwork. Michael Rotella (Supervisor, Hazardous Waste Management) joined the inspection following the paperwork review and escorted the inspector on campus to view the hazardous waste and universal waste storage areas. Michael Barnhart (Program Leader, Environmental Programs) joined the inspection in the afternoon during the campus tour.

Strong Hall

Strong Hall is a general chemistry building with two central accumulation areas and several satellite accumulation areas. *In the central accumulation area located on the first floor, Room 119, the inspector observed one 30-gallon, one 10-gallon, and one 1-gallon container (WS #1, 2, 3) labeled "hazardous waste," closed, dated, and marked to indicate the hazards of the contents (flammable, corrosive, toxic). The oldest is dated 5/9/23. Next, the inspector observed one 30-gallon container (WS #1) in the third-floor central accumulation area labeled "hazardous waste," closed, dated 5/22/23, and marked to indicate the hazards of the contents (flammable, corrosive, toxic). Both areas have fire extinguishers and spill equipment readily available, while facility staff uses cell phones for emergency communication.*

The inspector also observed satellite accumulation areas in Rooms 318, 323, 328, and 329. All areas were empty except Room 329, with one 5-gallon container (WS #3) stored. The inspector found the container labeled "hazardous waste," closed and marked to indicate the hazards of the contents (corrosive).

Senter Hall

Laboratories in this building focus on biology and soil science research. *In Room 114, the inspector observed a satellite storage area with four 1-gallon containers and one 1-liter (WS #1, 2, and 3) labeled "hazardous waste," closed and marked to indicate the hazards of the contents (flammable, corrosive, toxic, OSHA pictograms). Next, in Room 112, the inspector observed one 30-gallon container (WS #3) labeled "hazardous waste," closed and marked to indicate the hazards of the contents (corrosive).*

Mossman Hall

Mossman Hall is a biology and microbiology building with several research laboratories, and UT EH&S manages one central accumulation area here in Room 223. *In the central accumulation*

area, the inspector observed two 55-gallon, one 30-gallon, 12 bags, two 1-gallon, two 500 mL, one 250 mL, and two 1-liter containers (**WS #1, 2, and 3**) labeled "hazardous waste," closed, dated, and marked to indicate the hazards of the contents (flammable, corrosive, toxic). The oldest is dated 4/12/23.

In Room 115, the inspector also observed a satellite accumulation area with one 1-gallon container (**WS #1**) labeled "hazardous waste," closed and marked to indicate the hazards of the contents (OSHA pictogram). Next, the inspector observed several satellite storage areas in Room 641, where laboratory staff manages waste containers (ranging in size from 100 mL, 1-gallon, and baggies) in fume hoods labeled A through E. All the observed satellite containers (**WS #1, 2, and 3**) are labeled "hazardous waste," closed, and marked to indicate the hazards of the contents (flammable, corrosive, toxic).

Hesler Hall

Hesler Hall is a biology building with several research laboratories. In Room 106, the inspector observed two 1-gallon non-hazardous waste containers of loose pipette tips. The Division recommends that the laboratory place the pipette tips in zip-top baggies as the UT EH&S policy dictates. From Room 106, the inspection team continued to Room 502, where the inspector observed one 30-gallon satellite container (**WS #1**) labeled "hazardous waste," closed, and marked to indicate the hazards of the contents (corrosive, flammable). Leaving Room 502, the inspection team continued down the hall to Room 508. Here, the inspector observed two 1-gallon satellite containers (**WS #1**) labeled "hazardous waste" and marked them to indicate the hazards of the contents (toxic). **However, the inspector found both containers open (Photo 1).** The inspection of this building concluded with viewing Rooms 307 and 316; each found empty.

Science & Engineering Research Facility

The Science & Engineering Research Facility is an engineering and general chemistry building with one central accumulation area and several satellite accumulation areas. In the central accumulation area located in a locked room off the rear loading dock, the inspector observed four 30-gallon, eleven 4-liter, several baggies with small containers, and many bottles ranging from 50-mL to 1-liter (**WS #1, 2, 3, 5, and 6**), segregated by waste type, labeled "hazardous waste," closed, and marked to indicate the hazards of the contents (flammable, corrosive, toxic, OSHA pictograms). While the oldest is dated 4/4/23, **the inspector observed one baggie with several small bottles with no accumulation start date (Photo 2).** The areas have a fire extinguisher and spill equipment readily available, while facility staff uses cell phones for emergency communication. The Division recommends housekeeping in this storage area for organization and removal of any unnecessary equipment.

The inspector also observed satellite accumulation areas in Rooms 432, 623, 616, and 722 with containers ranging from 1-liter, baggies, and 4-liter (**WS #1, 2, and 3**) labeled "hazardous waste," closed, and marked to indicate the hazards of the contents (corrosive, flammable, toxic, OSHA pictograms). In Room 702, the large laboratory maintains several areas for satellite accumulation at or near the point of generation with 4-liter containers stationed either under fume hoods or for gas chromatograph effluent discharge. The inspector found all but one satellite container stored on a fume hood in compliance. While the 4-liter container (**WS #1**) was closed, **the container was not labeled "hazardous waste" or marked to indicate the contents (Photo 3).** The label, which

fell off the container and lying in the secondary containment bin, was reapplied by laboratory staff upon identification (Photo 4). The Division, however, recommends that the laboratory or UT EH&S staff replace the label due to damage. Inspection of Room 621 found the laboratory empty. All observed satellite accumulation areas were 55 gallons or less, as required.

Dabney-Buehler Hall

Laboratories in this building focus on general chemistry research. *The inspector observed satellite accumulation areas in Rooms 663, 665, and 602/603 with containers ranging from 100 mL, 1-liter, 4-liter, and 30-gallon (WS #1, 2, and 3) stored at or near the point of generation under fume hoods or designated areas but all less than 55-gallons. The inspector found the containers labeled "hazardous waste," closed and marked to indicate the hazards of the contents (toxic, flammable, corrosive).*

Dougherty Hall

Dougherty Hall is also a general chemistry building with several laboratories. *The inspector found 4-liter containers (WS #1, 2, and 3) in the satellite accumulation areas of Rooms 221 and 221 stored at or near the point of generation under fume hoods and labeled "hazardous waste," closed and marked to indicate the hazards of the contents (toxic, corrosive). The inspector also viewed Room 324 but found the satellite accumulation area empty.*

Fleming Center

The Fleming Center is a warehouse located at the edge of campus near the wastewater treatment plant. Universal waste collected throughout campus gets consolidated at this location for storage before shipment to Lighting Resources for recycling. *During the inspection, the inspector observed nine 5-gallon containers of waste batteries, one pallet of waste lead-acid batteries, and four boxes of waste lamps. While the battery containers had proper labeling, **the facility had not marked three of the nine containers with a storage date (Photos 5 and 6).** Upon identification, facility staff promptly applied a storage date to the three containers (Photos 7 and 8). The oldest dated container of this group was 6/19/23. According to staff, the facility manages lead-acid batteries as universal waste. **The inspector did not observe universal waste labeling or storage date markings on the batteries stored on the pallet (Photo 9).** Of the four boxes of waste lamps observed in storage, **three boxes did not have storage dates, and two boxes did not have proper universal waste labeling (Photo 10).** Facility staff applied universal waste labeling and storage dates to the boxes (Photo 11). The oldest dated waste lamp container is 6/16/23.*

File Review

The inspector reviewed the following documents:

- 2021, 2022, and 2023 hazardous waste manifests and LDRs
- 2020, 2021, and 2022 hazardous waste annual reports
- 2022 and 2023 employee training records, including training matrix-*all training found current*
- Hazardous waste reduction plan with annual progress report-*updated May 2023*
- 2021, 2022, and 2023 weekly inspection logs
- Contingency Plan with quick reference guide distribution

VIOLATIONS

Violation #1 – Rule 0400-12-01-.03(1)(f)1(iv) states:

- (1) General [40 CFR 262 Subpart A]
 - (f) Satellite accumulation area regulations for small and large quantity generators. [40 CFR 262.15]
 - 1. A generator may accumulate as much as 55 gallons of non-acute hazardous waste or either (i) one quart of liquid acute hazardous waste listed in subparagraph (4)(b) or part (4)(d)5 of Rule 0400-12-01-.02 or (ii) 1 kg (2.2 lbs) of solid acute hazardous waste listed in subparagraph (4)(b) or part (4)(d)5 of Rule 0400-12-01-.02 in containers at or near any point of generation where wastes initially accumulate which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with the requirements of Rules 0400-12-01-.05 through 0400-12-01-.07 and 0400-12-01-.09, provided that all of the conditions for exemption in this subparagraph are met. A generator may comply with the conditions for exemption in this subparagraph instead of complying with the conditions for exemption in part (g)2 or (h)1 of this paragraph, except as required in subparts (vii) and (viii) of this part. The conditions for exemption for satellite accumulation are:
 - (iv) A container holding hazardous waste must be closed at all times during accumulation, except:
 - (I) When adding, removing, or consolidating waste; or
 - (II) When temporary venting of a container is necessary
 - I. For the proper operation of equipment, or
 - II. To prevent dangerous situations, such as build-up of extreme pressure.

Violation #1 Observation

The University of Tennessee failed to close two 1-gallon satellite containers in Hesler Hall Room 508 (Photo 1).

Action

The facility must always close stored satellite hazardous waste containers except when adding or removing waste.

Violation #2 – Rule 0400-12-01-.03(1)(h)1(v)(I)(III) states:

- (1) General [40 CFR 262 Subpart A]
 - (h) Conditions for exemption for a large quantity generator that accumulates hazardous waste. [40 CFR 262.17]

A large quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of Rules 0400-12-01-.05 through 0400-12-01-.07, and 0400-12-01-.09, including the notification requirements, provided that all of the following conditions for exemption are met:

1. Accumulation. A large quantity generator accumulates hazardous waste on site for no more than 90 days, unless in compliance with the accumulation time limit extension or F006 accumulation conditions for exemption in parts 2 through 5 of this subparagraph. The following accumulation conditions also apply:
 - (v) Labeling and marking of containers and tanks
 - (I) Containers. A large quantity generator must mark or label its containers with the following:
 - III. The date upon which each period of accumulation begins clearly visible for inspection on each container.

Violation #2 Observation

The University of Tennessee failed to place an accumulation start date on one container of hazardous waste located in the Science and Engineering Research Facility's central accumulation area (Photo 2).

Action

Accumulation start dates must appear clearly on containers of hazardous waste stored in central accumulation areas.

Violation #3 – Rule 0400-12-01-.03(1)(f)1(v)(I) states:

- (1) General [40 CFR 262 Subpart A]
 - (f) Satellite accumulation area regulations for small and large quantity generators. [40 CFR 262.15]
 1. A generator may accumulate as much as 55 gallons of non-acute hazardous waste or either (i) one quart of liquid acute hazardous waste listed in subparagraph (4)(b) or part (4)(d)5 of Rule 0400-12-01-.02 or (ii) 1 kg (2.2 lbs) of solid acute hazardous waste listed in subparagraph (4)(b) or part (4)(d)5 of Rule 0400-12-01-.02 in containers at or near any point of generation where wastes initially accumulate which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with the requirements of Rules 0400-12-01-.05 through 0400-12-01-.07 and 0400-12-01-.09, provided that all of the conditions for exemption in this subparagraph are met. A generator may comply with the conditions for exemption in this subparagraph instead of complying with the conditions for exemption in part (g)2 or (h)1 of this paragraph, except as required in subparts (vii) and (viii) of this part. The conditions for exemption for satellite accumulation are:
 - (v) A generator must mark or label its container with the following:
 - (I) The words "Hazardous Waste" and

Violation #3 Observation

The University of Tennessee failed to label one 4-liter satellite accumulation container of waste acid with the words "hazardous waste" (Photo 3). The inspector observed this container in Room 702 of the Science and Engineering Research Facility.

Action Taken

Upon identification, laboratory staff placed a "hazardous waste" label on the storage container (Photo 4). The label previously placed in the container fell off and was lying in the secondary containment bin within the fume hood.

Violation #4 – Rule 0400-12-01-.03(1)(f)1(v)(II) states:

- (1) General [40 CFR 262 Subpart A]
 - (f) Satellite accumulation area regulations for small and large quantity generators. [40 CFR 262.15]
 - 1. A generator may accumulate as much as 55 gallons of non-acute hazardous waste or either (i) one quart of liquid acute hazardous waste listed in subparagraph (4)(b) or part (4)(d)5 of Rule 0400-12-01-.02 or (ii) 1 kg (2.2 lbs) of solid acute hazardous waste listed in subparagraph (4)(b) or part (4)(d)5 of Rule 0400-12-01-.02 in containers at or near any point of generation where wastes initially accumulate which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with the requirements of Rules 0400-12-01-.05 through 0400-12-01-.07 and 0400-12-01-.09, provided that all of the conditions for exemption in this subparagraph are met. A generator may comply with the conditions for exemption in this subparagraph instead of complying with the conditions for exemption in part (g)2 or (h)1 of this paragraph, except as required in subparts (vii) and (viii) of this part. The conditions for exemption for satellite accumulation are:
 - (v) A generator must mark or label its container with the following:
 - (II) An indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704).

Violation #4 Observation

The University of Tennessee failed to mark one 4-liter satellite accumulation container of waste acid with the indication of hazards (Photo 3). The inspector observed this container in Room 702 of the Science and Engineering Research Facility.

Action Taken

Upon identification, laboratory staff placed a label on the storage container, including hazard indications (Photo 4). The label previously placed in the container fell off and was lying in the secondary containment bin within the fume hood.

Violation #5 – Rule 0400-12-01-.12(2)(f)3 states:

- (2) Standards for Small Quantity Handlers of Universal Waste [40 CFR 273 Subpart B]
 - (f) Accumulation Time Limits [40 CFR 273.15]
 - 3. A small quantity handler of universal waste who accumulates universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:
 - (i) Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;
 - (ii) Marking or labeling each individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;
 - (iii) Maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received;
 - (iv) Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;
 - (v) Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or
 - (vi) Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

Violation #5 Observation

The University of Tennessee's practice of tracking universal waste storage time dictates that facility staff date each container of universal waste. The facility failed to place storage dates on three containers, one pallet of waste batteries, and three containers of waste lamps stored at the Fleming Center (Photos 5, 6, 9, and 10).

Action

While Fleming Center staff placed storage dates on the three containers of batteries and three containers of waste lamps (Photos 7, 8, and 11), the facility still needs to place storage dates on the pallet of lead-acid waste batteries (Photo 9).

Violation #6 – Rule 0400-12-01-.12(2)(e)1 states:

- (2) Standards for Small Quantity Handlers of Universal Waste [40 CFR 273 Subpart B]
 - (e) Labeling/Marking [40 CFR 273.14]
 - A small quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:
 - 1. Universal waste batteries (i.e., each battery), or a container in which the batteries are contained, must be labeled or marked clearly with any one of

the following phrases: "Universal Waste - Battery(ies)" or "Waste Battery(ies)" or "Used Battery(ies)."

Violation #6 Observation

The University of Tennessee failed to label each waste lead-acid battery stored on a pallet at the Fleming Center (Photo 9).

Action

According to University of Tennessee staff, the facility manages lead-acid waste batteries as universal waste. Therefore, when stored on a pallet, each waste battery must have a universal waste label as dictated in the regulation.

Violation #7 – Rule 0400-12-01-.12(2)(e)5 states:

- (2) Standards for Small Quantity Handlers of Universal Waste [40 CFR 273 Subpart B]
 - (e) Labeling/Marking [40 CFR 273.14]

A small quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

 - 5. Universal waste lamps (i.e., each lamp), or a container or package in which such lamps are contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste - Lamp(s)" or "Waste Lamp(s)" or "Used Lamp(s)" or "Universal Waste - Bulbs(s)" or "Waste Bulb(s)" or "Used Bulb(s)". Containers or packages destined for out-of-state shipment shall use the term "Lamps" in lieu of "Bulbs".

Violation #7 Observation

The University of Tennessee failed to appropriately label two boxes of waste lamps stored at the Fleming Center (Photo 10).

Action Taken

Upon identification, Fleming Center staff placed universal waste labeling on each waste lamp container, as required (Photo 11).

RECOMMENDATIONS/COMMENTS

1. In Hesler Hall Room 106, the inspector observed two 1-gallon non-hazardous waste containers of loose pipette tips. The Division recommends that the laboratory place the pipette tips in zip-top baggies as the UT EH&S policy dictates.
2. The Division recommends housekeeping in the Science & Engineering Research Facility central accumulation area for organization and removal of any unnecessary equipment.
3. The Division recommends that the laboratory or UT EH&S staff replace the labeling for the satellite container of waste acid stored in Room 702 of the Science and Engineering Research Facility due to damage (Photo 4).

Pamela Rudd

Pamela Rudd (Jul 6, 2023 13:26 EDT)

Signed

Pamela Rudd, CHMM
Environmental Scientist
Division of Solid Waste Management
Knoxville Environmental Field Office

Gerald Webster

Gerald Webster (Jul 6, 2023 13:25 EDT)

Reviewed

Gerald Webster, PG
Environmental Scientist
Division of Solid Waste Management
Knoxville Environmental Field Office

Revendra Awasthi

Revendra Awasthi (Jul 6, 2023 13:45 EDT)

Approved

Revendra Awasthi, CHMM
Environmental Field Office Manager
Division of Solid Waste Management
Knoxville Environmental Field Office

PHOTOS TN0 00-087-9809



Photo 1) Two open 1-gallon satellite containers in Hesler Hall Room 508.



Photo 2) One baggie of hazardous waste stored in the Science and Engineering Research Facility central accumulation area did not have an accumulation start date.

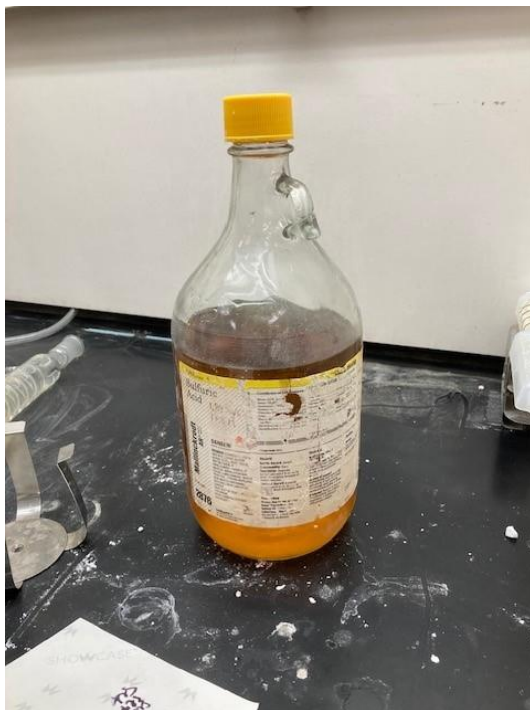


Photo 3) One satellite 4-liter container of waste acid stored in Room 702 of the Science and Engineering Research Facility was not labeled "hazardous waste" or marked with hazard indications.



Photo 4) Upon identification, laboratory staff replaced the labeling for the satellite container of waste acid in Room 702 of the Science and Engineering Research Facility. The label had fallen off and was lying in the secondary containment pan.



Photos 5 and 6) Three containers of waste batteries at the Fleming Center did not have storage dates.



Photos 7 and 8) Upon identification, Fleming Center staff placed storage dates on the three containers of waste batteries.



Photo 9) At the Fleming Center, facility staff failed to place storage dates and universal labeling on each lead-acid waste battery on the pallet.



Photo 10) Three boxes of waste lamps stored at the Fleming Center did not have storage dates. Also, two of the three boxes did not have proper universal waste labeling.



Photo 11) Upon identification, Fleming Center staff placed proper labeling and storage dates on the three containers of waste lamps.