



UNIVERSAL WASTE MANAGEMENT BEST PRACTICES



TRAVIS COUNTY, TX
NOVEMBER 2021

Travis County Universal Waste Management Plan

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I. Introduction

Travis County collects and disposes of universal waste in accordance with the United States Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) regulations. Universal wastes are a sub-category of Hazardous Wastes, and the Universal Waste Rule provides for reduced management and record keeping requirements for those specific wastes. While the majority of hazardous waste is generated by industry and laboratories, universal wastes are generated by nearly every business as well as private residents. Although the regulation of universal wastes is simplified and streamlined, universal waste materials cannot be placed in regular trash, tossed on the ground, or poured down the drain. These Universal Waste Management Best Practices provides one process for written documentation of universal waste records for Travis County (The County). It will also inform interested persons, including County and contracted employees, of The County's compliance with the EPA requirements for universal waste generators.

II. Regulatory Authority and Universal Waste in Texas

Universal waste is regulated by the EPA under [40 CFR 273](#) (Standards for Universal Waste Management) and the TCEQ Universal Waste Rule, as well as the TCEQ Standards for Management of Paint and Paint-Related Waste [TCEQ Universal Waste Rules [30 TAC §335.261](#) and [30 TAC §335.262](#)].

County Policy on Universal Waste

[County Code Chapter 311](#) directs that County waste materials, including Universal Waste, be recycled when possible or properly disposed of in a manner consistent with applicable regulations. Employees who handle toxic or hazardous substances on behalf of The County shall maintain, use, and dispose of such substances in accordance with applicable County procedures, as well as state, federal and local laws/regulations as a condition of their employment. Employees should obtain assistance in ascertaining his/her obligations under these laws and regulations from his/her supervisor. Additionally, Travis County TNR Environmental Quality (TNR-EQ) staff are available to provide assistance and guidance as it relates to universal waste. TNR-EQ staff can be reached at conserve@traviscountytexas.gov.

Any employee who violates any such laws or instructions given by his/her supervisor or otherwise outlined in this policy shall be deemed to have acted outside the scope of his/her authority.

[Universal wastes are certain types of hazardous wastes that are widely generated, such as batteries, certain pesticides, mercury-containing equipment, mercury lamps, and, in Texas, paint and paint-related waste. When managed as universal waste, these waste streams:](#)

- Will not count toward hazardous waste generator status (fewer regulatory requirements)
- Will not be included on the Notice of Registration or Annual Waste Summary (industrial and hazardous waste reporting)
- Will have longer accumulation time limits

[The rules on universal waste can be found in 30 TAC 335.261 !\[\]\(5361750c22c4e047a52f4eac1ec2d4cc_img.jpg\), 30 TAC 335.262 !\[\]\(f276343e5e0d2402c20fdc9e8443c0dd_img.jpg\), and 40 CFR Part 273 !\[\]\(f63d0a0c6c21d1cd8465081c8a0d79d6_img.jpg\).](#)

III. Universal Waste Types

Universal waste that is handled at The County includes: batteries, mercury containing devices, lamps/bulbs, pesticides, and paint and paint-related waste. See photos of examples in [Appendix A](#).

1. Batteries

- a. Batteries collected at The County have a battery chemistry that includes lead acid, Lithium-ion, Alkaline, Nickel Metal Hydride (NiMH), and Nickel Cadmium (NiCd). Varying shapes, sizes, and styles can include cylindrical, rectangular, flat cells, button cells, lanterns, nine volts, and battery packs. A battery becomes universal waste when it is removed from service. Automotive lead acid batteries must be handled as universal waste and shall be disposed of through the identified County-authorized channels. For proper documentation see [Section V: Proper Labeling of Containers](#).
- b. Batteries that are not regulated as a universal waste include Alkaline, zinc carbon, zinc chloride, lithium-ion and non-automotive lead acid. These types of batteries can be disposed of through battery recycling outlets.

2. Mercury Containing Devices

- a. Thermostats, thermometers, manometers, barometers, sphygmomanometers, relays, and switches are all examples of devices that may contain mercury. These devices can be managed under the Universal Waste Rule provided they are intact.

3. Lamps/Bulbs

- a. Lamps, bulbs, or tube portions of electrical lighting devices, may contain small amounts of mercury. There may also be small amounts of cadmium in some types of lamps. Lamps considered to be universal waste can be fluorescent, metal halide, or mercury vapor. Small compact, U-tube, straight, and standard light bulb shapes are all very commonly found in universal waste.
- b. Non-mercury containing lamps that are utilized by The County can be disposed of in the solid waste dumpster. Always verify that the bulb is a non-mercury or low-level mercury bulb before disposal. Low-level mercury bulbs that could be used may include the following:
 - i. General Electric Bulbs
 - Ecolux
 - ii. Sylvania Bulbs
 - Ecologic
 - iii. Phillips Bulbs
 - ALTO

4. Pesticides

- a. Pesticides that have been recalled or banned from use, are obsolete, have become damaged, or are no longer needed due to changes in procedures or other factors, are considered a universal waste.

5. Paint and Paint-Related Waste

- a. Paint and paint-related waste is used or unused paint and paint-related material which is "hazardous waste" as defined under [§335.1](#) of the TCEQ Chapter on Industrial solid waste and municipal hazardous waste.
- b. Also included is any mixture of pigment and a suitable liquid which forms a closely adherent coating when spread on a surface or any material which results from painting activities.

- c. Examples may include used or unused paint, spent solvents used in painting, PPE from painting, paint removal wastes, and paint filters. Only if the materials is characteristic of hazardous waste (ignitable or toxic).

Note: If paint is shipped out of Texas it must be manifested as hazardous waste

IV. Universal Waste Accumulation Areas and Time Limits

Accumulation Areas

Universal wastes must be stored in a designated waste storage area with sufficient space to accumulate and store the quantity of universal wastes generated. The accumulation and storage of universal wastes must be managed in a manner that prevents the release of waste or waste constituents. All waste should be immediately containerized into the appropriate designated vessel when placed in the universal waste accumulation area. Additionally, staff should label waste containers so they can easily be identified and safely disposed of. Materials that do not have a designated vessel/storage location should never be left in the accumulation area, contact TNR-EQ staff (conserve@traviscountytx.gov) for guidance on proper disposal.

Travis County facilities should have an accumulation area in each facility. For consistency, it is recommended that county facilities use the following best practices:

1. Maintenance facilities – designate a space within the maintenance facility for universal waste collection and storage. Use bright orange colored tape or paint to identify the universal waste space. Use bins and signs to indicate what materials go where. Contact TNR-EQ staff for bins, signs, or guidance.
2. Service centers/mechanic shops – designate a space within the maintenance facility for universal waste collection and storage. Use bright orange colored tape or paint to identify the universal waste space. Contact TNR-EQ staff for bins, signs, or assistance.
3. Administrative buildings/offices – universal waste containers accumulation areas should be collocated with a vending machine, preferably on the ground floor of the building, or near the facility manager’s office.
 - a. Maintenance and custodial staff should designate a space within each building in which they operate for the collection and storage of universal waste. Contact TNR-EQ staff for bins, signs, or assistance.
4. Other facilities – contact TNR-EQ staff for support if the facility types above, or accumulation practices above are not applicable.

Facilities Management staff can take filled, sealed, and labeled universal waste boxes/containers to the Smith Road Warehouse (1600 Smith Rd. Austin, TX 78721) or other locations as designated by Facilities Management leadership. Once collection containers from individual accumulation areas are filled, the full containers can be taken to Smith Road for shipment. Additionally, full universal waste containers can be exchanged for empty collection containers.

Time Limits

Universal waste can be accumulated for up to one year from the date it became a waste. The amount of time that a universal waste has been accumulated must be demonstrated, in any one of the following ways:

1. Marking the container with the earliest date the waste began accumulating in that container.
2. Directly marking the universal waste with the date that it became a waste.
3. Marking a designated accumulation area with the earliest date that waste began accumulating in that area.
4. Maintaining an inventory log that identifies the date that each universal waste became waste.
5. Maintaining an inventory log that identifies the earliest date that a universal waste became a waste in the designated accumulation area.

At Travis County accumulation areas should be outfitted with collection containers. The date collection of the universal waste begins (placing a spent item into a previously empty universal waste container) should be marked on the collection container for the purpose of accumulation time limits.

V. Proper Labeling of Containers

All universal waste containers must be labeled at the time the first waste is generated in the container. Either attach a label (see [Appendix B](#)) or write on the container the following information: Universal Waste and name/type of waste, Date (Enter the date waste is first generated). Pesticides require the original manufacturer's label or other state-approved label in addition to the Universal Waste Label.

VI. Inspections

The EPA's Universal Waste Rule (40 CFR § 262.16) states "At least weekly, the small quantity generator must inspect central accumulation areas. The small quantity generator must look for leaking containers and for deterioration of containers caused by corrosion or other factors."

A primary and secondary point of contact shall be identified for each facility. Weekly inspections should be conducted by on-site staff and documented on an inspection log that is to be kept in the accumulation area. Inspection logs should start new on January 1st of each year. See [Appendix C](#) for a copy of the inspection log. Completed logs should be scanned and emailed to TNR-EQ staff (conserve@traviscountytexas.gov) at the beginning of each year, or once the log has been completely filled with entries, whichever occurs first.

During inspection, if containers are not dated or labeled, staff members should affix labels and add date universal waste collection began. If the date is unknown, staff should use the date of the last collection (or contact TNR-EQ staff for this information). If containers are full, staff members are encouraged to contact the appropriate service provider, or TNR-EQ staff to coordinate collection. If containers show signs of leakage or corrosion, staff should contact TNR-EQ staff right away.

VII. Hazardous Materials Release and Spill Procedures

Spills or residues from universal waste may be considered hazardous materials/waste if any or all of the released material or residue is hazardous. If the materials released in the spill are considered hazardous, it must be managed as hazardous waste rather than universal waste.

Spills and releases of universal waste can be hazardous to human health. If a staff member does not feel confident with their ability to safely clean up a spill or release of universal waste, it is recommended that

a professional environmental contractor be hired to conduct the cleanup. Staff members are encouraged to contact the TNR-EQ Team (conserve@traviscountytx.gov) for spill response guidance and assistance.

Reporting: Hazardous spills or chemical releases should be reported to the local jurisdiction’s fire department, Travis County Security (854-5555), and the appropriate department dispatch team, or emergency point of contact (see table below).

Department	Dispatch Phone Number
Facilities Dispatch (8am-5pm)	512-854-9500
Facilities (after hours)	512-854-5555
TNR Dispatch	512-854-9433
TNR-Safety	512-854-4627
Sheriff’s Office (non-emergency)	512-854-9770
Communications and Records Services	512-854-9575
Fire Dispatch (non-emergency)	512-974-0400
Office of Emergency Management	512-974-0450
For emergencies call 9-1-1	

You do not need to report spills/discharges of the following:

- Cathode ray tubes: Incidental spills/releases of ten (10) or fewer CRTs.
- Lamps: Incidental spills/releases of ten (10) or fewer lamps.

All spills/discharges from batteries, mercury-containing thermostats, mercury devices, motor vehicle mercury switches and PCB ballasts must be reported immediately.

The following procedures can be used to clean up universal wastes:

- Always wear safety glasses and disposable rubber gloves when cleaning universal waste spills. All items (i.e. brooms, shovels, scoops, gloves, sponges, rags...) used to clean up universal waste spills should be considered contaminated and must be decontaminated or treated as waste.
- Thoroughly wash your hands and face after cleaning up any universal waste spills.

For spills or releases that do not require reporting:

- Place the broken universal waste item(s) in an appropriate container i.e. sealable plastic bag or sealable plastic or metal container;
- Scoop or wipe up as much of the discharged material as possible and place the rags and any other clean-up equipment in the container;
- Wipe the spill area thoroughly with a wet sponge. For mercury lamps, it is recommended that you go over the area with masking tape to pick up small particles of mercury. Place sponge, tape, and/or rags in an appropriate container;
- Seal the container(s) and store as universal waste.
- If the spill occurred on a carpet or other permeable surface it may be necessary to remove the flooring to prevent continued exposure to universal waste. This debris should be considered contaminated and treated as hazardous waste.

Do **not** place released material or broken, leaking items back into the container with universal waste.

For spills or releases that require reporting: Follow the same instructions as above, except the waste must be managed as a hazardous waste instead of as a universal waste.

Additional Resources:

- If you have further questions, please call the local poison control center at 1-800-222-1222.
- Broken CFL - <https://www.epa.gov/cfl/cleaning-broken-cfl#qi>
- Mercury spill – <https://www.epa.gov/mercury/what-do-if-mercury-thermometer-breaks>

VIII. Shipment/Transportation and Disposal

Shipment/Transportation

Package, label, and mark the shipment of universal waste in accordance with DOT regulations. Universal waste can only be shipped to a certified universal waste handler, or a Transfer, Storage, Disposal, or Recycling Facility (TSDRF). Prior to shipping universal waste off-site, the generator of the waste must obtain approval from the destination facility. TNR-EQ staff oversees scheduling and approving all waste shipping documents.

Disposal

Universal waste shall not be disposed of as landfill trash, or in any other manner not previously described in this document or otherwise approved by TNR-EQ staff.

IX. Record Keeping

All universal waste management activities shall be documented. The following are documentation requirements that should be maintained and shared with TNR-EQ staff:

- All universal waste documentation related to transportation, shipment, regulatory reporting, etc.
- Hazardous material/waste tags
- Universal waste management release records
- Initial/annual universal waste management training records
- All other universal waste management documentation

These records must be kept for a minimum of three years.

X. Training

As a best practice of universal waste management, Travis County should ensure that employees who manage or handle universal waste are informed about waste handling methods and spill/release procedures applicable to the waste they are handling, and relative to their responsibilities during normal County operations and emergencies. All training records must include the dates of training sessions, contents or a summary of the training session, name of the trainer, and names of the individuals attending the training session. Training that is conducted by other departments should send a copy of the training roster to the TNR-EQ staff.

TNR-EQ staff is available to provide staff training on universal waste. Department managers and supervisors are responsible for ensuring staff attend and retain training information.

All Travis County staff members who handle, manage, store, or are otherwise stakeholders in the universal waste collection process, are responsible for ensuring they attend universal waste training at least annually. New employees should receive training on universal waste management within the first 30 days.

Appendix A – Photo Examples of Universal Waste Items

All photos are for informational/instructional purposes are not endorsements or recommendations for specific battery types or brands.

Batteries

1. Lead Acid



2. Lithium Ion





3. Alkaline



Be sure to tape or cover ends of 9volt (square) batteries

4. Nickel Metal Hydride (NiMH)





5. Nickel Cadmium (NiCd)



Battery shapes and sizes:

6. Button Cells

7. Flat Cell



8. Lantern



Mercury Containing Devices

1. Thermostats and Thermometers



2. Manometers and Barometers



3. Sphygmomanometers and Relays



Lamps/Bulbs

1. Fluorescent Tubes and Bulbs



2. Metal Halide Bulbs



3. Other Mercury-Containing Bulbs



Pesticides

1. Pesticides, Herbicides, and Paint



Paint and Paint-Related Waste

1. Paint and Paint-Related Waste



Appendix B – Universal Waste Container Labels

A purple rectangular label with white text. The top half features the words "UNIVERSAL WASTE" in large, bold, white capital letters. Below this, a white rectangular area contains four lines of text, each followed by a horizontal line for writing: "CONTENTS", "ACCUMULATION START DATE", "SHIPPER", and "ADDRESS". The bottom line is labeled "CITY, STATE, ZIP".

A purple rectangular label with white text, specifically for used batteries. The top half features the words "UNIVERSAL WASTE" in large, bold, white capital letters. To the right of the bottom half, the words "USED BATTERIES" are written in bold, white capital letters. On the left side, a white rectangular area contains four lines of text, each followed by a horizontal line for writing: "SHIPPER", "ADDRESS", "CITY, STATE, ZIP", and "ACCUMULATION START DATE".

Pesticides require the original manufacturer’s label or other state-approved label in addition to the Universal Waste Label

Appendix D – Universal Waste SOP

Universal Waste: Travis County collects and disposes of universal waste in accordance with the United States Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) regulations. Universal waste is a sub-category of hazardous waste, and the Universal Waste Rule provides for reduced management and record keeping requirements for those specific wastes. While the majority of hazardous waste is generated by industry and laboratories, universal wastes are generated by nearly every business as well as private residents.

Universal waste that is handled at The County includes: batteries, mercury containing devices, lamps/bulbs, pesticides, and paint and paint-related waste.

Why it's important: Universal waste is a classification of hazardous waste used to incentivize businesses to recycle potentially dangerous materials. According to [Rubicon Global](#), just a quarter of a teaspoon of mercury can contaminate all the fish in a 20-acre lake. Recycling universal waste is an inexpensive solution to keeping dangerous materials out of landfills and natural resources.

How to get started?

Step 1: Designate a primary point of contact

[insert name] is the main person in charge of managing, inspecting, and reporting on universal waste for *[insert facility name]* at *[insert facility address]*.

Step 2: Designate a back-up point of contact

[insert name] is the back-up person in charge of managing, inspecting, and reporting on universal waste for *[insert facility name]* at *[insert facility address]*.

Step 3: Identify the accumulation area for individual or all types of universal waste

Best Practice: For consistency, it is recommended that county facilities use the following accumulation standards:

1. For all facility types/locations use bright orange colored tape or paint to identify the universal waste collection space and use bins and signs to indicate what materials go where. Contact TNR-EQ (conserve@traviscountytexas.gov) for bins, signs, or guidance.
2. Maintenance facilities – designate a permanent space for universal waste collection and storage.
3. Service centers/mechanic shops – designate a space within the maintenance facility for universal waste collection and storage. Be sure the space is safe from the elements, and outside of high-traffic areas to avoid damage/collision with collection containers.
4. Administrative buildings/offices – universal waste containers accumulation areas should be collocated with a vending machine, preferably on the ground floor of the building, or near the facility manager's office.
 - a. Maintenance and custodial staff should designate a space within each building in which they operate for the collection and storage of universal waste. Contact TNR-EQ staff (conserve@traviscountytexas.gov) for bins, signs, or assistance.

5. Other facilities – contact TNR-EQ staff for support if the facility types above/practices above are not applicable.

For TNR-EQ staff assistance, contact Carly Farley (4-7642) or email conserve@traviscountytexas.gov

The accumulation area for universal waste is as follows:

Universal Waste Material	Accumulation Area
Batteries	<i>Insert accumulation area (describe as necessary) e.g. Batteries are collected in black buckets next to the vending machine area on the ground floor in suite #111</i>
Mercury Containing Devices	<i>Insert accumulation area (describe as necessary)</i>
Lamps/Bulbs	<i>Insert accumulation area (describe as necessary)</i>
Pesticides	<i>Insert accumulation area (describe as necessary)</i>
Paint and Paint-Related Waste	<i>Insert accumulation area (describe as necessary)</i>

Step 4: Accumulation areas should have collection containers and be labeled as the universal waste accumulation area. Additionally, all containers must be labeled at the time the first waste is generated in the container. The label should include the following: Universal Waste, name/type of waste, and date the waste is first generated.

Step 5: Accumulation areas should be inspected weekly. Inspection logs can be found within the Universal Waste Management Practices Guide (pages 17 & 18)

During inspection, if containers are not dated/labeled, staff members should affix labels and add the date universal waste collection began. If the date is unknown, staff should use the last collection date (or contact TNR-EQ staff for this information). If containers are full, staff members are encouraged to contact the appropriate service provider, or TNR-EQ staff to coordinate collection. If containers show signs of leakage or corrosion, contact TNR-EQ staff (conserve@traviscountytexas.gov) right away.

Step 6: Additional best practices:

- Exercise caution – if there is a spill, unknown chemical or a staff member is otherwise not confident in managing universal waste, contact TNR-EQ staff for assistance
- Follow County processes for managing universal waste and never dispose of universal waste as landfill trash
- Do not leave universal waste shipping boxes in pick-up trucks, outside, or otherwise exposed to the elements. Shipping containers are expensive and must be handled with care to avoid damaging the container
- If you don't know, ask. TNR-EQ staff is happy to provide to universal waste management assistance

- Make sure accumulation areas are out of the way to prevent breakage or damage of universal waste items
- Reporting: Report universal wastes spills/discharges to the appropriate dispatch team below:

Department	Dispatch Phone Number
Communications and Records Services	512-854-9575
Facilities Dispatch (8am-5pm)	512-854-9500
Facilities (after hours)	512-854-5555
Fire Dispatch (non-emergency)	512-974-0400
Office of Emergency Management	512-974-0450
Sheriff's Office (non-emergency)	512-854-9770
TNR Dispatch	512-854-9433
TNR-Safety	512-854-4627
For emergencies call 9-1-1	

TNR-EQ Universal Waste contacts:

Carly Farley (primary point of contact) **4-7642** or Carly.Farley@traviscountytx.gov
 Shelbi Davis (secondary point of contact) **4-4496** or Shelbi.Davis@traviscountytx.gov
 To reach any member of the TNR-EQ team, email conserve@traviscountytx.gov

Step 7: Verification of SOP

[insert primary point of contact name] has read and understands the Universal Waste SOP and will ensure facility back-up reads and understands the procedure as well.

<p>X _____</p>	
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Primary Contact Signature

Date Signed