



Recycling of Spent Batteries on the UWF Campus

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Purpose

Provide guidelines to insure the recycling of spent batteries on the University of West Florida Campus to support our sustainability initiative and to comply with state and federal Universal Waste requirements.

Definitions

EPA – Environmental Protection Agency – Federal Agency that governs and regulates environmental issues.

DEP – (Florida) Department of Environmental Protection – The state agency that regulates environmental issues in Florida. DEP has authority to enforce federal environmental regulations in this state.

RCRA – Resource Conservation and Recovery Act – a federal law that regulates the management and disposal of hazardous wastes.

Hazardous Waste – Any waste material that meets any one criteria of flammability, corrosivity, reactivity, fails a TCLP test, or is listed by EPA as a Hazardous Waste.

Universal Wastes - As defined by EPA, Hazardous Wastes that are subject to the universal waste management requirements in 40 CFR 273, including:

- (1) Batteries as described in §273.2;
- (2) Pesticides as described in §273.3;
- (3) Mercury-containing equipment as described in §273.4; and
- (4) Lamps as described in §273.5.

Responsibility

This section sets forth the various responsibilities of individuals involved in the process of implementing and maintaining this program.

1. The President of The UWF has the ultimate responsibility for ensuring that safety and

environmental management programs are implemented and adhered to on campus. The individuals listed below are to act as the President's representatives and handle the day to day issues associated with this program.

2. The Provost, Executive Vice President for University Affairs, and Department Heads are responsible for ensuring that faculty and staff are provided with resources and support necessary to provide a safe working and teaching environment, and comply with the intent of this program.
3. The Director of Environmental Health and Safety will develop policy and procedure; provide technical support, consultation, information regarding training, and periodic safety and environmental compliance audits.
4. The Faculty and Staff at the University are responsible for oversight of safety and health issues within their areas of responsibility related to the instruction of students.
 - a. Faculty are responsible for ensuring that students attend training and work safely to insure students understand the proper management of spent batteries;
 - b. Explain proper and safe procedures for management and disposal;
5. Each student, faculty and staff member is expected to attend training and follow procedures and practices outlined in this training guide.

Environmental Procedures

Providing a safe work and learning environment is a fundamental goal of the University of West Florida, as well as providing an environmentally friendly, safe, and sustainable campus. The use of batteries in electronic equipment is essential to the operation, function and portability of such equipment and technology. However, the proper management and disposal of batteries is essential to prevent pollution to the environment and to comply with regulations.

The following guideline represent a summary of the requirements that must be followed to maintain compliance with UWF environmental requirements.

Recycling of Batteries

1. All recharable batteries **must** be recycled. This includes but is not limited to nickel cadmium (Ni-Cd), Lead acid, nickel metal halide (NiMH), lithium, and lithium ion batteries.
2. All non-recharable batteries containing lithium, cadmium, mercury, silver, lead, or other heavy metals **must** be recycled.
3. Traditional alkaline or carbon batteries are not required to be recycled by regulations.

Management of Spent Batteries

Departments that use portable equipment that generate spent/used batteries, on a regular and recurring basis, a collection area should be established to insure that batteries are collected and managed in accordance with state and federal regulations.

Departments that generate spent/used batteries on an occasional basis may contact Environmental Health and Safety (EH&S) for collection information.

The improper management and disposal of Universal Waste Batteries is a violation of RCRA and may lead to hazardous waste citations and fines. Therefore, management and recycling of batteries in accordance with the Universal Waste rules is paramount.

Lead Acid Batteries

Lead Acid batteries are found in many types of products. Prior to the disposal of these products, the lead acid batteries must be removed from the equipment prior to disposal and managed for recycling.

The following products may contain lead batteries:

Automobiles
Lawn Equipment
Golf/Utility Carts
Fire Alarm Panels
Security Panels
Computer UPS Systems (Back-ups)
Other – Bicycle lights, electric bicycles, misc. equipment.

Lead acid batteries (automotive and sealed gel cells) must be managed in an area that is out of the weather and contained to prevent spills to the environment. Batteries may not be stored on or above the soil with out secondary containment.

Each battery must be labeled "Spent Lead Battery for Recycling", or similar wording.

Each battery must be labeled with it's "Out of Service" date.

Batteries may not be stored on site longer than one year from the "Out of Service" date.

Nickel Cadmium Batteries/Alkaline Batteries

Nickel Cadmium (Ni- Cd) batteries are found in many types of products. Prior to the disposal of these products, the Ni-Cd batteries must be removed from the equipment prior to disposal and managed for recycling.

The following products may contain Ni-Cd batteries:

Two way Radios
Portable Power Tools
Portable Scientific Equipment
Portable Electronics
Cell Phones
Laptop Computers

When Ni-Cd batteries are taken out of service, they must be placed in a sealed container and dated with an "Out of Service" Date.

In lieu of labeling each battery, the container may be labeled with the "Out of Service" date; however, all batteries in the container must be removed from site within one year of the "Out of Service" date.

Each container or battery must be labeled Spent Ni-Cd batteries for recycling, or similar.

Batteries may not be stored on site longer than one year from the "Out of Service" date.

Alkaline batteries may be stored/mixed with the Ni/Cd for recycling.

Lithium Batteries

Lithium-metal batteries must be handled carefully to prevent short circuiting causing heat generation and fire. Battery terminals should be covered to prevent contact and short circuiting.

Lithium-ion batteries are not as dangerous as lithium-metal; however, caution should still be used.

All lithium containing batteries may be placed in the same container.

Each container or battery must be labeled Spent Lithium batteries for recycling, or similar.

Batteries may not be stored on site longer than one year from the "Out of Service" date.

Button Batteries

Button batteries may contain silver, mercury, lithium or other compounds.

These batteries should be placed in a closed container and labeled as indicated above.

Recordkeeping

Disposal and recycling receipts and manifests shall be maintained on file on the Office of Environmental Health and Safety

References

1. Governors Executive Order 2000-292
2. OSHA 29 CFR 1910
3. NCF Safety Policy Statement
4. NCF Environmental Policy Statement
5. UWF Safety Programs as listed on web: <http://uwf.edu/ENVHS/recycling.cfm>
6. F.S 403.721 Standards, requirements, and procedures for generators and transporters of hazardous waste and owners and operators of hazardous waste facilities
7. FAC 62-730 Hazardous Waste
8. American College and University, President's Climate Committee
9. http://www.dep.state.fl.us/waste/quick_topics/publications/shw/batteries/pdf_files/4037192.pdf
10. http://edocket.access.gpo.gov/cfr_2003/julqtr/pdf/40cfr273.2.pdf

