

THE ENVIRONMENTAL REGISTER

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THE UNIVERSITY OF KENTUCKY ENVIRONMENTAL MANAGEMENT DEPARTMENT

OUR MISSION:

To provide outstanding service to the RESEARCH, ACADEMIC, OPERATIONAL and HEALTHCARE areas of the University in defining and achieving their goals for environmental compliance and resource conservation.



Environmental Quality Management Center

THE UNIVERSITY'S BATTERY MANAGEMENT PROCESS

Batteries used by the University community come in different configurations, sizes, and voltages. For management of spent batteries, they can be considered in three categories, **alkaline**, **lead acid batteries**, and **rechargeable** (lithium ion, nickel metal hydride and nickel – cadmium). A brief discussion of each category of battery follows..

Alkaline Batteries

Alkaline batteries are primary or non-rechargeable batteries. Currently there are no proven cost effective and environmentally safe recycling methods for these batteries and indeed some literature indicates that recycling of these types of batteries is a net energy loss. **Therefore, alkaline batteries should be separated from the rechargeable batteries and disposed of as normal trash.**



Lead-Acid Batteries

Lead-acid batteries are found in Uninterruptible Power Supply (UPS) units and vehicles. Instead of disposing these batteries and in contrast to the alkaline line of batteries, the recycling of lead-acid batteries has been the environmental success story of our time. **Lead batteries should be recycled through the Campus Recycling Department.** Contact Tom Gregory, Recycling Program Coordinator at 257-8788 or tom.gregory@uky.edu for further instructions.



Rechargeable Batteries

This category of batteries consists of lithium-ion, nickel metal hydride, and nickel-cadmium batteries. Most of these battery types are marked with the word "Rechargeable". Effective recycling technologies exist and should be fully utilized. The University has chosen to partner with the Rechargeable Battery Recycling Corporation (RBRC) in a program known as Call2Recycle for management of rechargeable batteries.



Call2Recycle Program

The Call2Recycle program is a free recycling program for rechargeable batteries that is financially supported by the RBRC. This process provides a no cost national battery recycling program which is funded by the manufacturers of rechargeable batteries. Through Call2Recycle, over 55 million pounds of used rechargeable batteries have been collected and effectively recycled during the 15 years of the program's existence. Over 300 universities are a partner in the program. These batteries are collected in special boxes (as pictured) and then shipped via UPS to a recycling center.



PLEASE REFER TO THE FACT SHEET [Management of Batteries](#) FOR FURTHER, MORE DETAILED INFORMATION ABOUT THE BATTERY MANAGEMENT PROCESS.

Director's Highlight's

The Environmental Management Department has extensively researched the management of used batteries at the University as well as the process used at numerous other institutions. Based on our research we have developed a new process for management of used batteries. This process considers the regulations (both DOT and EPA), the available technology, and the net environmental impact. This SPECIAL EDITION newsletter highlights the process and describes the various types of batteries. Please examine our fact sheet for further details and do not hesitate to contact us at 323-6280 for further information.

Robert D. Kjelland, Director
Environmental Management Dept.

Did You Know?

- Some batteries, but not all, contain hazardous constituents requiring management as Universal Waste under USEPA regulation if disposed. Alkaline batteries are not classified as Universal Waste.
- Since 1993 alkaline batteries contain no hazardous constituents classified as hazardous waste by the USEPA.
- More than 97% of the lead in lead acid batteries is recycled.
- A new lead-acid battery contains 60%- 80% recycled lead and plastic.
- DOT regulations require that battery terminals be taped or the battery placed in a plastic bag to prevent the potential for sparking during shipment.