Batteries, Lamps, and Ballasts Safety Program

For

Bowling Green State University

Environmental Health and Safety
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June 2019

Revisions

Revision Number	Date
1*	June 12, 2019

*Indicates the initial implementation of this program.

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Foreword

The following are basic guidelines for University departments in the identification, collection, and temporary storage of hazardous wastes as defined primarily under 40 CFR 261 and 3745-50 through 52 OAC (Ohio Administrative Code). These procedures should be considered as minimal and need to be used as a foundation for more detailed guidelines developed by individual departments. This program will serve as a supplement to the Bowling Green State University Hazardous Waste Procedures.

Objective

The objective of the Batteries, Lamps, and Ballasts Safety Program is to ensure safety and compliance for all Bowling Green State University personnel who are using or disposing of batteries, lamps, or ballasts. This program provides basic information on:

- Procedures must be followed when disposing of these waste streams;
- The different types of batteries, lamps, and ballasts; and
- Locations of battery, lamp, and ballast collection stations.

Introduction

Batteries, lamps, and ballasts are classified as Universal Waste, per the Environmental Protection Agency (EPA) regulations. These products are found throughout campus and are vital to the everyday operations of the University. Although many people may be familiar with these items, it is the responsibility of the Department of Environmental Health and Safety, with the support of the Office of Campus Sustainability, to outline proper procedures and methods for disposal. These procedures are not universal in nature, however are dependent on the composition of the object.

Batteries

There are many different types of batteries used at Bowling Green State University. Some examples include: Alkaline, lead acid, nickel cadmium, nickel metal hydride, and lithium/lithium ion. Procedures for each type are listed below:

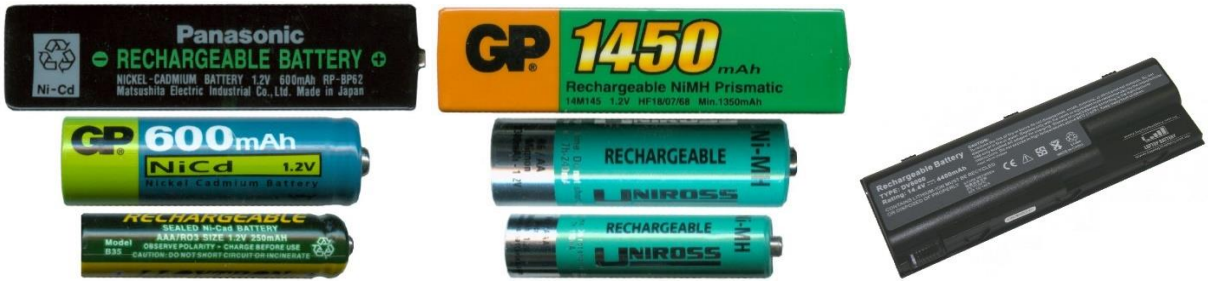
Alkaline Batteries

Alkaline batteries, often purchased as AA, AAA, C, D, and 9V, do not have any specific regulations related to disposal. However, to support the University's mission of sustainability, should be recycled by depositing them into the closest Battery Waste Accumulation Area (see section, *Waste Accumulation Areas*).

Lead Acid Batteries

Lead acid batteries are often found in automobiles or as backup power supplies for various types of equipment on-campus. These batteries are considered Universal Waste and must be disposed of properly. To dispose of a lead acid battery, you may drop off the battery at the closest Battery Waste Accumulation Area (see section, *Waste Accumulation Areas*), or you can put a work order in for Campus Operations for pickup. **No personnel should be transporting (using a motor vehicle, such as a car/truck, golf cart, or RTV, to move) lead acid batteries to a Waste Accumulation Area without consulting the Office of Campus Sustainability or the Department of Environmental Health and Safety.**

Nickel Cadmium, Nickel Metal Hydride, and Lithium/Lithium Ion Batteries



Other various types of common rechargeable batteries include Nickel Cadmium, Nickel Metal Hydride and Lithium/Lithium Ion batteries. Similar to lead acid batteries, these are considered Universal Waste and must be disposed of properly. To dispose of any of these batteries, you may drop off the battery at the closest Battery Waste Accumulation Area (see section, *Waste Accumulation Areas*), or you can put a work order in for Campus Operations for pickup. **No personnel should be transporting (using a motor vehicle, such as a car/truck, golf cart, or RTV, to move) nickel cadmium, nickel metal hydride, or lithium/lithium ion batteries to a Waste Accumulation Area without consulting the Office of Campus Sustainability or the Department of Environmental Health and Safety.**

Lamps

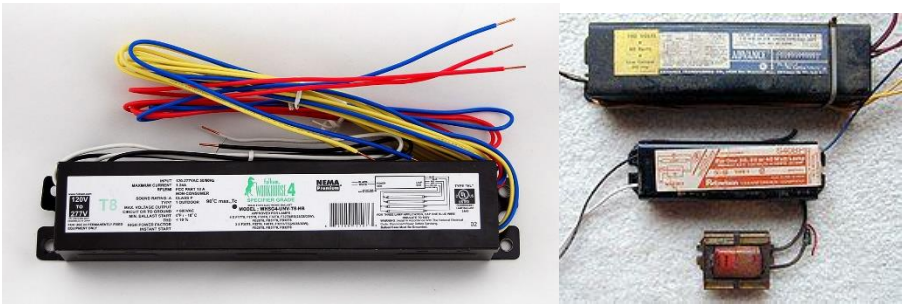
Lamps are defined as a bulb or tube portion of an electric lighting device. Some common examples of lamps include: fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, ultraviolet (UV), and metal halide lamps. Since some lamps contain mercury, lead, or other hazardous components, lamps are considered regulated waste and need to be disposed of properly.

Note: LED and incandescent lamps are not considered hazardous, however should be recycled.

Intact lamps should be collected by Campus Operations personnel at designated lamp storage locations throughout campus. Since Campus Operations handles the maintenance, installation, and organization of lamp storage bins, a work order should be put in with Campus Operations to repair and dispose of expired lamps.

If broken lamps are encountered throughout campus, it is recommended to seal the broken lamp in a two plastic garbage bags and then dispose of in the general household/landfill trash. **Purposely crushing lamps to dispose of as household waste is prohibited by State and Federal regulations.**

Ballasts



A lamp ballast is defined as a device designated to limit the amount of current in an electrical circuit. Ballasts are a common item used throughout campus for both fluorescent and LED lighting. Any ballasts manufactured prior to 1979 may contain polychlorinated biphenyls (PCBs), which have been known to cause many health effects in humans and animals. Some of these health effects include: cancer, and adverse effects to the immune system, nervous system, endocrine system, and the reproductive system.

Due to the mixed waste streams on campus, all ballasts, regardless whether or not they contain PCBs, are to be installed and dismounted by trained Campus Operations personnel. All ballasts are to be transported to the nearest Waste Accumulation Area (see section, *Waste Accumulation Areas*) and are to be recycled or disposed of in accordance with the BGSU Hazardous Waste Program.

Waste Accumulation Areas

As noted above, batteries, lamps, and ballasts are to be collected at designated waste accumulation areas to initiate proper disposal by the Office of Campus Sustainability and the Department of Environmental Health and Safety. The designated waste accumulation area for each waste type is noted below, however you may find the most updated list on the Office of Sustainability webpage:

Batteries

All batteries are accepted at any Electronic Waste Recycling location. To find the most current list of locations, visit the Office of Campus Sustainability website.

If disposing of larger batteries (i.e. lead acid) a work order can be submitted to Campus Operations for pickup.

Lamps

Unbroken lamps can be collected by Campus Operations and stored at the closest Lamp Waste Collection Area. Since these stations and the maintenance of lighting devices are managed by Campus Operations, it is recommended to submit a work order to Campus Operations to evaluate a lighting fixture or initiate disposal of a lamp.

Ballasts

Ballasts can be collected by Campus Operations and stored at the closest Ballast Waste Collection Area (Central Services). Since the maintenance of lighting devices are managed by Campus Operations, it is recommended to submit a work order to Campus Operations to evaluate a lighting fixture or initiate disposal of a ballast.