

Memorandum

To: Solid Waste Advisory Group (SWAG)

From: Orange County Solid Waste Staff

Subject: Smoke Detector and Compact Fluorescent Light (CFL) Recycling

Date: October 19, 2015

Below is information regarding proper recycling procedures for smoke detectors as well as compact fluorescent lights (CFLs) including safety information for handling these materials. The SWAG had inquired about the items at the September meeting.

SMOKE DETECTORS or SMOKE ALARMS

There are two types of smoke detectors available for households: ionization detectors and photoelectric detectors. Ionization detectors contain a small amount of Americium-241, a radioactive element. There are no solid waste regulations that prevent a resident from throwing an old unwanted ionization detector in their regular garbage because the amount of radioactivity is low, and it is encased inside the detector. However, these detectors cannot be taken to either one of the Household Hazardous Waste collection facilities because these facilities are not permitted to accept any radioactive waste of any kind— not even the small amount found in a household smoke detector. Instead of discarding them in the garbage, smoke detectors can be recycled by sending them back to the original manufacturer (name and address should be stamped on the underside of the unit). Please be aware that shipping and handling is paid **by the sender**, not the recipient. Here are a few resources:

- Kidde brand – 1-800-880-6788 –will send a pre-paid label for you to ship their brand back to them.
- First Alert brand – 1-800-323-9005
- Curie Services-- <http://www.curieservices.com/smoke-alarm-recycling/curiepack/> - a third party vendor offering recycling services for all brands of smoke detectors.

Unwanted photoelectric detectors can be disposed of in the household trash with no issue-just remove and recycle the battery first.

Batteries can be recycled at all five Waste and Recycling Centers and the Household Hazardous Waste collection facilities in Orange County. All three Weaver Street Market locations, Whole Foods and True Value Hardware stores in Chapel Hill accept batteries for recycling as well. In addition, it is recommended to place a strip of masking tape across the terminals of 9-volt batteries before you recycle them to reduce fire risk. If two 9-volt batteries containing even a residual charge touch terminals it can create a spark which could lead to a fire.

COMPACT FLUORESCENT LAMPS (CFL) AND FLUORESCENT TUBES:

Fluorescent bulbs include compact fluorescent (aka 'twirly') lights also known as CFL's, circular fluorescent bulbs and fluorescent tubes and ballasts. All of these contain mercury, a hazardous material that may not be disposed in the trash. Even the reduced-mercury-content fluorescent lamps, typically with green metal ends, must be recovered for recycling. As CFLs are hazardous waste, they should be taken to the Household Hazardous Waste (HHW) facility located at 1514 Eubanks Road, Chapel Hill, or the HHW facility located at the Walnut Grove Waste & Recycling Center, 3605 Walnut Grove Church Rd, Hillsborough. If someone plans to bring more than 20 bulbs, they should contact the Solid Waste Administration Office at 919-968-2788 to make an appointment. Businesses in Orange County are also able to utilize this service. Businesses and other private institutions are required by law to recycle fluorescent lamps if they produce more than a certain amount per year.

Care should be taken to not break fluorescent tubes during transport to the HHW facility. Bulbs should be placed in a cardboard box or taped together to ensure safety.

In the event of a CFL breaking, the following actions are recommended by the US EPA to reduce exposure to mercury vapor:

1. Before cleanup:

- a. Have people and pets leave the room.
- b. Air out the room for 5-10 minutes by opening a window or door to the outdoor environment.
- c. Shut off the central forced air heating/air conditioning (H&AC) system, if you have one.
- d. Collect materials needed to clean up broken bulb.

2. During cleanup:

- a. Be thorough in collecting broken glass and visible powder.
- b. Place cleanup materials in a sealable container.

3. After cleanup:

- a. Promptly place all bulb debris and clean up materials outdoors in a trash container or protected area until materials can be disposed of properly. Avoid leaving any bulb fragments or cleanup materials indoors.
- b. For several hours, continue to air out the room where the bulb was broken and leave the H&AC system shut off.