



Disposal of Smoke Detectors

The most common types of smoke detectors, ionization detectors, contain less than one microcurie of Americium 241, a radioactive material. Americium can pose a health hazard if the smoke detector is broken open. For this reason, these smoke detectors must, by law, be labeled for radioactive content. Because the risk to consumers and solid waste workers is insignificant, the Nuclear Regulatory Commission allows household smoke detectors to be disposed of in household trash. When the smoke detector needs to be replaced, wrap it in newspaper and place it in a cardboard box for disposal.

Some manufacturers accept returned ionization smoke detectors and recycle the Americium. If local regulations prohibit disposal of smoke detectors in household trash, return them to the manufacturer. **Send smoke detectors by surface mail and print the words For Disposal Only \$0 Value on the front of the package.** Recycling centers and businesses must call before shipping more than three units; consumers do not need to call.

First Alert, BRK, and Family Guard Smoke Detectors only—

Send to: First Alert BRK Brands, Inc., 3901 Liberty Street Road, Aurora, IL 60504-8122, 1-800-323-9005. www.brkelectronics.com

American Sensors and Dicon Smoke Detectors only—

Send to Dicon Global, Inc., 20 Steelcase Road West Unit #3, Markham, Ontario L3R 1B2, Canada, 1-800-387-4219. www.diconglobal.com

Smoke detectors have a life span of about ten years, after which they should be replaced. To make sure your smoke detectors will work when needed, test them with actual smoke. Clean battery-operated models once each year with a hair dryer on cool setting or with compressed air. Electric models do not open easily for cleaning.

Americium 241

Ionizing smoke detectors contain Americium 241, a radioactive material. There are three types of radioactive isotopes: alpha, beta and gamma

emitters. Beta emitters give off an electron, which is several orders of magnitude smaller than the alpha emitter's hydrogen nucleus, and thus faster and more potent. Gamma emitters give off non-particulate rays that can penetrate most anything but lead, and are the most damaging.

The isotope in smoke detectors is an alpha emitter, which is a large particle (a hydrogen nucleus) of low energy that cannot travel through any physical barrier and moves very slowly. Thus it cannot usually be detected in a load of trash, and is relatively harmless. One or two smoke detectors in a load of trash are not usually detected, but a large number of smoke detectors in a single load is likely to be detected.



Barnstable County

HAZARDOUS MATERIALS PROGRAM

Collaborating with the University of Massachusetts Cooperative Extension

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