



WASTE AND MATERIALS MANAGEMENT PROGRAM GUIDANCE FOR COMMENT

GUIDANCE DOCUMENT TITLE AND NUMBER

Disposal of Household Smoke Detectors – WA-2039

PROGRAM/BUREAU

Waste and Materials Management

GENERAL TOPIC

This document addresses the disposal of smoke detectors generated by households (does not apply to businesses). It provides general information on the types of detectors and how to manage them. It is being created to provide guidance to the general public, and to assist staff in providing consistent technical assistance on this topic (staff receive calls on this issue).

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02/28/2025

PUBLIC CONTACT FOR GUIDANCE

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Disposal of Household Smoke Detectors

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This document provides guidance on the disposal of smoke detectors generated by households. Businesses should contact their disposal company to determine the most appropriate disposal option for their type of smoke detector.

General Information

There are three main types of household smoke detectors:

- ionization detectors
- photoelectric detectors
- combination detectors (these contain both ionization and photoelectric detectors)

Ionization-type smoke detectors and combination smoke detectors contain a small amount of radioactive material, typically the man-made radioisotope Americium-241. Photoelectric-type smoke detectors do not contain any radioactive material.

To determine if the smoke detector contains a radioactive element, check the smoke detector for either a written warning or for the international radiation symbol on the manufacturer's label. If you do not see a warning on the label, it is safe to assume that the device does not contain any radioactive material.



Regulations and Disposal

All commercially available household smoke detectors (those homeowners can purchase at retail outlets) contain less than 1 microcurie (μCi) of Americium-241. As federal and state regulations do not address the disposal of smoke detectors that contain less than 1 μCi of Americium-241, the following options are recommended best practices for the safe disposal of these items.

Commercially available household smoke detectors:

- Should never be taken apart or crushed as this may potentially cause a release of radioactive material.
- May be placed in household trash bins for disposal at a licensed landfill.
- Are typically not accepted by household hazardous waste collection sites in Wisconsin.
- Should not be placed in household recycling bins as they are not designed to be recycled.

Batteries should be removed and properly disposed of prior to disposal of the smoke detector.

If a homeowner or remodeler accumulates several smoke detectors, it is recommended that disposal of detectors be spread out over several loads to minimize the potential of setting off the radiation detectors located at landfills.

Manufacturers may also accept used smoke detectors. Check the owner's manual or contact the manufacturer directly for more information on requirements for returns. Contact the U.S. Postal Service for additional information on returning used smoke detectors by mail.

Industrial or specialty smoke detectors:

- May contain more than 1 μCi of Americium-241.
- Should not be disposed of in a household trash bin.
- Work with the manufacturer to determine how to dispose of it properly.

Additional information on industrial or specialty smoke detectors is available through the Department of Health Services Radiation Protection Section at <https://www.dhs.wisconsin.gov/radiation/index.htm>.

Carbon monoxide detectors do not contain any hazardous materials so they can also be safely thrown away in a household trash bin. As with smoke detectors, do not put carbon monoxide detectors in a recycling bin.

Contact DNRWasteMaterials@wisconsin.gov for further information.

Waste & Materials Management Program

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