

## Background Continued

Radiation monitors can be used to check incoming scrap for radioactive material; however, they cannot always detect radioactive material that may be carried in a load or otherwise shielded from the radiation monitor. Keep in mind that items that are not normally radioactive can set off radiation monitors if radioactive contamination is present in or on the surface of the items. Note that some radioactive material is permitted to be disposed of without special requirements. If you suspect radioactivity in an item, contact your state radiation control agency.

## Typical Labeling

The following are examples of terms normally used in association with the radiation warning symbol to indicate the type of radioactive material and its quantity. Certain other markings describing the type of material may also appear.

### Examples: Types of Radioactive Material

Cobalt-60 (Co-60 or <sup>60</sup>Co)  
Iridium-192 (Ir-192 or <sup>192</sup>Ir)  
Cesium-137 (Cs-137 or <sup>137</sup>Cs)  
Radium-226 (Ra-226 or <sup>226</sup>Ra)

### Examples: Quantity of Radioactive Material

Curie (Ci)                      Becquerel (Bq)  
Millicurie (mCi)              Gigabecquerel (GBq)

### Examples: Other Marking

DOT  
Type A or B  
CDN/XXXX/B  
USA/XXXX/B

## Radiation Warning Symbol

This symbol should appear on containers and devices that hold radioactive substances, and may be on a label, tag, or etched in the metal. Labels are magenta or black on yellow, and in many instances, markings and colors may be faded and worn. Please note that not all containers and devices requiring the radiation warning symbol will be properly marked with the symbol.



## Where to Get Help

- ❖ **Insert Your State/Local/Company Contacts** (ex. State Radiation Control Agency, Company Radiation Health Consultant, etc.)
- ❖ Find information regarding your State Radiation Control Agency at <https://www.nrc.gov/agreement-states.html>
- ❖ **U.S. Nuclear Regulatory Commission Headquarters Operation Center** (Staffed 24 hours a day, collect calls accepted) (301) 816-5100 [www.nrc.gov](http://www.nrc.gov)
- ❖ **National Response Center** Operated by U.S. Environmental Protection Agency (Staffed 24 hours a day, toll free) (800) 424-8802 [www.epa.gov](http://www.epa.gov)

# RADIOACTIVE SCRAP – BE AWARE!





## What To Do

The items pictured may contain radioactive material. If you see such items, notice radioactive warning markings on a piece of scrap metal, or if you think the material is radioactive, **DO NOT HANDLE**. Take the following actions:

- ❖ DO NOT TOUCH THE ITEM.
- ❖ PUT DISTANCE BETWEEN YOU AND THE ITEM AND IF POSSIBLE, SHIELD THE ITEM WITH CONCRETE, THICK METAL, OR SAND.
- ❖ WARN OTHERS AND SECURE THE AREA.
- ❖ MOVE THE ITEM TO A SAFE AREA **ONLY** IF YOU HAVE THE ABILITY TO MEASURE AND ASSESS THE RADIATION LEVEL.

Contact your state radiation control agency immediately. If unavailable, contact the national response center or the U.S. nuclear regulatory commission (see “Where to Get Help” section).

## Typical Items



GAUGE WITH SADDLE CLAMP



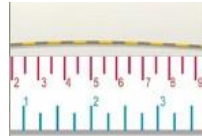
GAUGE



TRANSPORT BOX “AMMO CASE”



VARIOUS SOURCES



MEDICAL SEEDS



SELF-LUMINOUS DEVICES



BAR-TYPE STATIC ELIMINATOR



VENT-TYPE STATIC ELIMINATOR



SHIELD SOURCE CONTAINER



ELECTRON CAPTURE DETECTOR



X-RAY FLUORESCENCE ANALYZER



GAUGE WITH OXIDATION



RADIOGRAPHY CAMERA



DEPLETED URANIUM SHIELDING



WELL-LOGGING SOURCES



GAUGE PAINTED OVER



MOUNTED GAUGE



PORTABLE GAUGE

## Background

Items that contain radioactive material come in different forms, shapes, and sizes. These items can turn up in scrap material. You should be alert to the presence of items that may contain radioactive material. Be familiar with the typical markings such as the three-bladed radiation warning symbol, and the terms used to describe the radioactive materials most used in these devices. Remember that some radioactive material may not be properly marked with the radiation warning symbol, or the radiation warning symbol may be covered by dirt, oil, or rust.

Since 1983, radioactive material has been detected in scrap metal numerous times. In some cases, the radioactive material was contained in shielded devices that found its way into scrap handling facilities and was processed in normal scrap. This resulted in contamination of the facilities, radioactive products in the flue dust, and potential radiation exposure to the works. The contaminated products could have been hazardous to members of the public as well.