



Radioactive Material in Scrap Metal

Sometimes radioactive materials are disposed of improperly and end up in scrap metal yards.

- You will probably never come into contact with contaminated scrap metal.
- If you think you have found contaminated scrap metal, do not touch it. Immediately contact your state radiation office.

About Radioactive Material in Scrap Metal

Sometimes radioactive materials are disposed of improperly and end up in scrap metal yards. There are several types of radioactive materials that can end up in scrap metal yards. For example, some industrial devices contain a small quantity of safely enclosed radioactive material called a sealed source. Found or abandoned radioactive sources are called orphan sources when their identifying marks have been removed or damaged. Orphan sources do not have owners to dispose of them properly.

If radioactive materials are disposed of improperly or sent for recycling as scrap metal, they can end up at a facility that is not licensed to handle them. Recycling facilities have devices called portal monitors (shown in the photo to the right) that can detect radiation in batches of scrap metal.

If a scrap metal yard or recycling facility unknowingly melts a sealed or orphan radioactive source, it contaminates the metal, the processing equipment and the facility. More importantly, workers can unknowingly be exposed to radiation.

Officials at scrap metal yards and disposal sites use sensitive radiation scanners on incoming shipments to discover unwanted radioactive materials before they can cause widespread contamination. In a few cases, radioactive materials have been unknowingly chopped up, sent to steel mills and melted. In those cases, all the metal in the batch and the equipment used was contaminated and could no longer be used. Cleaning up the facility cost millions of dollars.

Rules and Guidance

THE STATES

Each state sets rules to protect citizens from radiation, including responding to and investigating suspected radioactive materials at scrap metal facilities.

State radiation organization representatives assemble as the Conference of Radiation Control Program Directors (CRCPD) to discuss radiation issues that they all face. CRCPD's Source Collection and Threat Reduction (SCATR) project helps find orphan sources and dispose of them properly.



U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

EPA has developed training for workers who could come into contact with orphan sourcesⁱ. Workers in the metal processing and demolition industries can learn more about recognizing sealed sources and equipment that may contain them.

U.S. NUCLEAR REGULATORY COMMISSION (NRC) AND AGREEMENT STATES

NRC protects people and the environment from sealed radioactive sources by requiring licensing for manufacturers of sealed sources. More than half of U.S. states have signed agreements with NRC to take over this licensing responsibility, these states are called Agreement States.

U.S. DEPARTMENT OF ENERGY (DOE), NATIONAL NUCLEAR SECURITY ADMINISTRATION (NNSA)

NNSA helps recover sealed sources in the United States and other countries. Securing sealed sources helps protect people from accidental exposure and keeps them from falling into the hands of terrorists. NNSA encourages people who no longer need their sealed sources to register them. NNSA also may help owners of registered sources with disposal.

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

DOT oversees the safety and security of hazardous materials during transport. DOT's Office of Hazardous Materials Safety (OHMS) writes rules for shipping hazardous materials by highway, rail, air and sea. DOT works with the NRC to ensure that these materials are shipped safely.

What you can do

It is highly unlikely that you would come into contact with radioactively contaminated scrap metal. However, if you think you have found contaminated scrap metal, do not touch it. Immediately contact your state radiation officeⁱⁱ.

Until you know differently, treat the suspected radioactive material as though it were a radioactive source and limit your exposure. Three basic ways to limit possible exposure include:

Time – Limit the time spent near the radiation source.

Distance – Increase the distance between you and the radiation source.

Shielding – Put something (the heavier and thicker, the better) between you and the radiation source.

Where to learn more

You can learn more about radioactive material in scrap metal by visiting the resources available on the following webpage: <http://www3.epa.gov/radtown/scrap-metal.html#learn-more>.

ⁱ <http://www.epa.gov/radiation/source-reduction-management/training.html>

ⁱⁱ http://www.crcpd.org/Map/RCPs_more.aspx