

Removing Disused Radioactive Sources

Eliminating Potential Risk Today

Disused radioactive sources can pose an unnecessary risk to businesses, communities, and the country as a whole. These disused sources have the potential to become lost or stolen, which increases the risk of malicious use in a radiological dispersal device (RDD) or “dirty bomb,” and in other acts of terrorism. The Department of Energy/National Nuclear Security Administration’s (DOE/NNSA) Office of Radiological Security (ORS) works to ensure the proper handling and secure disposition of radioactive materials, to help enhance the security of our nation and its people.

Off-Site Source Recovery Program (OSRP) and Source Collection and Threat Reduction (SCATR)

ORS helps connect our nation’s businesses and governments with the services of OSRP and SCATR, which focus on the proper removal of disused radioactive sources, helping to eliminate excess, unwanted, abandoned, or orphaned radioactive sealed sources that pose a threat to national security, public health, and safety. OSRP and SCATR collectively recover approximately 2,500 sources annually from domestic locations for final disposition. The following sealed nuclide sources are included:

cesium-137	curium-244
cobalt-60	californium-253
strontium-90	plutonium-238
americium-241	plutonium-239

OSRP recovers disused and unwanted radioactive sealed sources that have no commercial disposal pathway. Since 1997, OSRP has removed more than 33,000 radioactive sealed sources containing more than one million curies of material from over 1,200 industrial, educational, healthcare, and government facilities.

SCATR, managed by the Conference of Radiation Control Program Directors (CRCPD), provides cost-shared support for the packaging, transport, and disposal of Class A, B, and C sources with access to a commercial disposal facility. Over 13,000 radioactive sources have been recovered from commercial facilities through this program.

ORS offers its participants a wide range of support, including assistance with sealed source identification, packaging, transportation, secure storage, and disposition.



Development of the 435-B Transportation Container

To provide enhanced security of radioactive sources in transport and in storage, ORS is working with industry partners to create new container solutions. The 435-B Transportation Container is a new general use Type B container that meets transportation regulations and is suitable for the recovery of high beta/gamma devices.

The unshielded, leak-tight container is certified by the Nuclear Regulatory Commission and Department of Transportation to transport certain self-shielded irradiators. ORS is currently working to make this design more widely available. A new larger shielded container, the 380-B, is currently in the development phase.

Registering for Removal Services

Licensees who are in possession of radioactive sealed sources should register them at <http://osrp.lanl.gov> and follow the online registration instructions. For more information on the source registration process, call **877-676-1749** or email osrp@lanl.gov.

International ORS Removal Offerings

On an international scale, ORS partners with countries and international organizations on the proper removal of high-risk disused radioactive sources. Through its collaborative efforts, radioactive sealed sources are placed in a secure storage location in the country, or in some cases, repatriated to their country of origin. The ORS Search and Secure project supports partner countries with equipment and training needed to search for orphaned or abandoned sources.



For more information, contact: ORSinfo@nnsa.doe.gov.