



U.S. DEPARTMENT OF
ENERGY



Global Threat Reduction Initiative (GTRI)



August 18, 2011

GTRI Overview

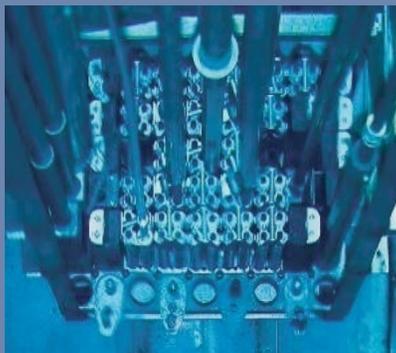
MISSION

REDUCE AND PROTECT VULNERABLE NUCLEAR AND RADIOLOGICAL MATERIAL LOCATED AT CIVILIAN SITES WORLDWIDE.

GOALS

1. CONVERT
2. REMOVE
3. PROTECT

Convert



Convert research reactors and isotope production facilities from the use of highly enriched uranium (HEU) to low enriched uranium (LEU)

These efforts result in permanent threat reduction by minimizing and, to the extent possible, eliminating the need for HEU in civilian applications – each reactor converted or shut down eliminates a source of bomb material.

Remove



Remove and dispose of excess nuclear and radiological materials; and

These efforts result in permanent threat reduction by eliminating bomb material at civilian sites – each kilogram or curie of this dangerous material that is removed reduces the risk of a terrorist bomb.

Protect



Protect high priority nuclear and radiological materials from theft and sabotage

These efforts result in threat reduction by improving security on the bomb material remaining at civilian sites – each vulnerable building that is protected reduces the risk until a permanent threat reduction solution can be implemented.

Recent Studies

2010 Radiation Source Protection and Security Task Force Report

- Written by interagency Task Force established pursuant to section 651(d) of the Energy Policy Act of 2005 (Public Law 109-58).
- “By far the most significant challenge identified is access to disposal for disused radioactive sources.” (Task Force Report, p. iii)

Sealed Source Disposal and National Security: Deliverables 1 and 2 of the Removal and Disposition of Disused Sources Focus Group

- Led by the Dept. of Homeland Security under the auspices of the Critical Infrastructure Partnership Advisory Council’s (CIPAC) Nuclear Government Coordination Council and Nuclear Sector Coordinating Council (NGCC/NSCC)
- Written by more than 40 participants from Federal and State Government Organizations, Compact Commissions and Industry.

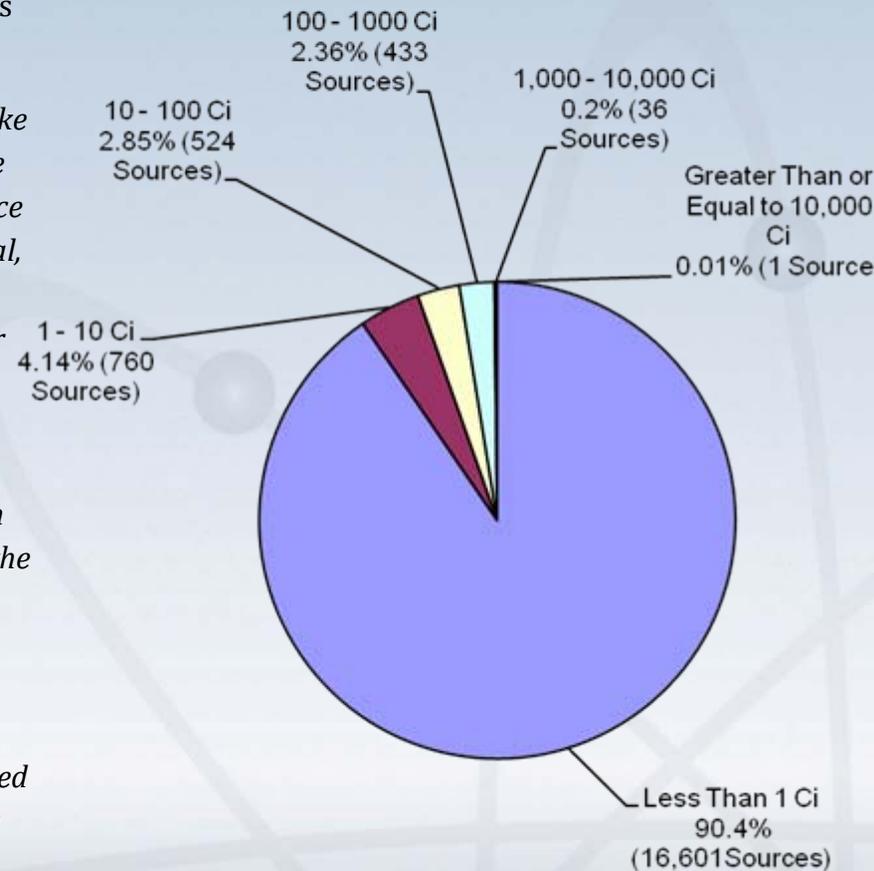
National Security and Disposal

Sealed Source Disposal and National Security: Problem Statement

and Solution Set, Deliverable (Part 1) of the Removal and Disposition of Disused Sources Focus Group of the Radioisotopes Subcouncil of the NGCC and NSCC, December 9, 2009.

The lack of disposal pathways for radioactive sealed sources, which make up less than 1 percent of all low-level radioactive waste by volume and activity, poses a national security concern. During their service lives, these sources have numerous essential and beneficial medical, industrial, and research applications. However, due to their high activity and portability, some of these sources could be used either individually or in aggregate in radiological dispersal devices commonly referred to as "dirty bombs," resulting in economic impacts in the billions of dollars and significant social disruption. Every year, thousands of sources become disused and unwanted in the United States. While secure storage is a temporary measure, the longer sources remain disused or unwanted the chances increase that they will become unsecured or abandoned. Thus, permanent disposal is essential. However, only 14 States currently have commercial LLRW sealed source disposal access, and there are significant political, statutory, and regulatory challenges associated with the creation of commercial disposal access for the remaining 36 States.

Sources Registered as Disused and Unwanted
On GTRI/OSRP Database,
April 20, 2011



Total Sources: 18,355



Map of Registered Disused Class A Sources

