



Security of Radioactive Materials

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Overview

- Unwanted/Orphan Sources
- Import/Export of Sources
- National Source Tracking System
- Enhanced Security Activities

Unwanted/Orphan Sources

- Trilateral Initiative between the U.S. NRC, Mexico, and Canada.
- Department of Energy's Offsite Source Recovery Program.
- Conference of Radiation Control Program Directors' National Orphan Radioactive Material Disposition Program.

Import/Export Part 110 Regulations

- Rule conforms NRC's export/import regulations to the Code of Conduct
- Requires specific (instead of general) licenses to export or import Code of Conduct Category 1 and 2 radionuclides
- Different from the Code, the rule covers bulk material

National Source Tracking System

- Interim Database, begun in 2003 and updated annually, meets the goal of the Code of Conduct for a national registry
- NSTS expands capability to actually track transactions on a web-based system
- Enables tracking of Category 1 and 2 sources from IAEA Code of Conduct, from origin through changes of ownership, to disposition

Control and Security of Radioactive Sources

- NRC is using a risk informed graded approach for enhanced security measures
 - Nuclear power plants to small materials licensees
 - Identified sources that warrant greatest control
 - Coordinated with states, other agencies, licensees
 - Enhanced tracking of radioactive sources
 - Implementing IAEA Code of Conduct
 - Issued advisories for National Special Security Events

Enhanced Security Activities

- Orders
 - Large Panoramic Irradiators Security Measures Order -June 6, 2003
 - Manufacturing and Distribution Licensees Security Measures Order - January 12, 2004
 - Transportation of Radioactive Material Quantities of Concern – July 19, 2005
 - Increased Controls for other types of materials licensees – November 2005

Increased Controls

- Objectives
 - Enhance control of material to prevent unauthorized access for malevolent use of material or mitigate consequences
- Emphasis
 - Prompt enhancements
 - Practical measures

Increased Controls

Basis

- Prevent theft/diversion for malevolent use
- Prompt detection, assessment, and reporting
- Prompt Local Law Enforcement Agency (LLEA) response
- Confirmation of shipping/receiving
- Additional security for sources in transit
- Changes in the threat environment may indicate additional needs

Increased Controls

- Security Assessments of materials licensees have been performed
 - Irradiator
 - Manufacturing and Distribution
 - Medical facilities
 - Universities
 - Radiographers and Well Loggers
- Increased Controls informed by results of Security Assessments

Increased Controls

- Licensees that possess sources greater than the quantities Category 2 (including aggregated quantities)

IC-1 Control Access

IC-2 Monitor, Detect, Assess, and Respond

IC-3 Transportation Security

IC-4 Additional controls to secure portable and mobile devices

IC-5 Document Retention

IC-6 Information Protection