

LOW-LEVEL RADIOACTIVE WASTE FORUM, INC.

Disused Sources Working Group

Leonard Slosky, Chair, First Phase
Disused Sources Working Group

The Eight Annual RadWaste Summit
Las Vegas, NV

September 4, 2014

Background

2

- **Sealed sources have many beneficial uses**
- **Vast majority of licensees manage their sources properly**
- **Sealed sources could be used to produce a radiological dispersion device or radiation exposure device**
- **National Nuclear Security Administration (NNSA) considers thousands of disused sources (including IAEA Category 3 sources) to be risk-significant from a national security perspective**
- **NNSA requested the Low-Level Radioactive Waste Forum, Inc. (LLW Forum) establish a working group to provide recommendations to reduce the national security risk from disused sources**

First Phase Working Group Members

3

- **Leonard Slosky** – Rocky Mountain Compact (**Chair**)
- **Max Batavia** – Atlantic Compact
- **Brad Broussard** – Radioactive Materials Division, Texas Commission on Environmental Quality
- **Mike Garner** – Northwest Compact
- **Kathryn Haynes** – Southeast Compact
- **Rusty Lundberg** – Division of Radiation Control, Utah Department of Environmental Quality
- **Alyse Peterson** – New York Energy Research & Development Authority
- **Stan York** – Midwest Compact

Working Group Process

4

- **18 meetings over 31 months**
- **Stakeholder meetings**
 - **DOE, NRC, DOD, DOT**
 - **States, Compacts, CRCPD, OAS, HPS**
 - **Manufacturers, distributors, recyclers, brokers/processors**
 - **Disposal facility operators**
- **Commented on Concentration Averaging and Encapsulation BTP and 10 CFR 61 rulemaking**
- **Final report issued March 2014**

Disposal Landscape Has Changed

5

- ❑ **Texas Compact facility began accepting out-of-compact waste including sealed sources**
- ❑ **Utah granted a time-limited (1 year) license variance to allow disposal of certain Class A sealed sources**
- ❑ **NRC finalizing CA BTP which may provide expanded opportunities for source disposal at existing sites**
- ❑ **Availability of disposal options has not resulted in a rush to disposal**

Findings - 1

6

- **Life-cycle costs not internalized**
 - ▣ **Purchasers may not be aware of or plan for large disposal costs**
- **Thousands of disused sources stored indefinitely. Users reluctant to reuse/recycle/dispose - partially because of cost**
- **Sources in long-term storage are at greater risk for loss of control – inadequate incentives for timely disposition**
- **While additional Type B containers are coming on the market, still appears shortage of shipping containers for high activity disused sources**

Findings - 2

7

- **Regulatory system should be enhanced to control national security risks in a post – 911 threat environment**
 - **Financial assurance requirements do not apply to most sources that pose a risk to national security and do not cover the full disposal cost**
 - **Current regulatory framework does not promote recycle, reuse, disposal – opportunities for reuse, recycle, and disposal are underutilized**
- **Long-term solution – hold licensees who benefit from the sources responsible for proper reuse/ recycle/disposal**

Recommendations - 1

8

- **Acquisition and Accumulation**
 - ▣ **Educate potential buyers about the cost of storage, transportation, and disposal**
 - ▣ **Research alternative technologies and promote their use**
 - ▣ **Research agencies give preference to reuse of sources in inventory and require budgeting for life-cycle costs**

Recommendations - 2

9

- **Enhanced regulatory controls**
 - ▣ **NRC should develop robust financial assurance requirements**
 - ▣ **Annual fee for sources in storage**
 - ▣ **Establish a two-year time limit on storage of disused sources**
 - ▣ **Require manufacturers/suppliers/brokers to dispose sources that cannot be reused/recycled**
 - ▣ **Require “date last used” in NSTS**
 - ▣ **Greater controls for Category 3 and Generally Licensed sources**

Recommendations - 3

10

- **Timely Reuse, Recycle, or Disposal**
 - ▣ **Source “exchange” program**
 - ▣ **Study measures to promote reuse and recycling**
 - ▣ **Technical outreach program to connect users with resources to help package, transport, dispose of sources**
 - ▣ **NNSA contract for study of the demand for Type B containers**
 - ▣ **NNSA submit applications to certify several foreign package designs for domestic use**

Next Steps

11

- **DSWG report available on LLW Forum website at www.llwforum.org**
- **For additional information, contact LLW Forum at (754) 779-7551 or LLWForumInc@aol.com**
- **Second phase – continue dialogue with stakeholders and pursue implementation of recommendations**
- **Ray Flemming, TX – Chair, Second Phase DSWG**