

PROBLEMS WITH PACKAGED SOURCES IN FOREIGN COUNTRIES

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**Cristy Abeyta, Jim Matzke, John Zarling
and J. Andrew Tompkins**

Los Alamos National Laboratory, Los Alamos, NM, USA

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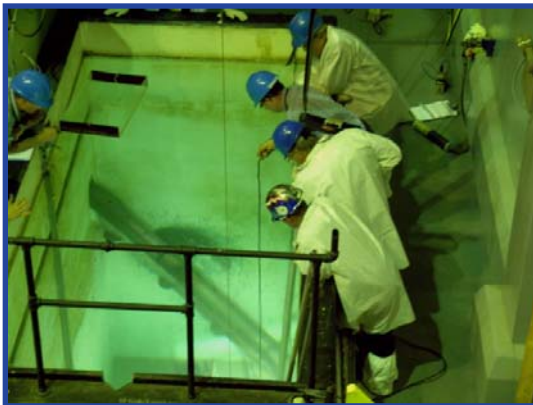
What is LANL OSRP Mission?

- **Los Alamos National Laboratory (LANL) Off-Site Source Recovery Project (OSRP) Began in 1999**
- **Part of U.S. Dept. of Energy Global Threat Reduction Initiative**
- **Address health, safety, and national security threats**
- **Recover excess and unwanted sealed sources**
- **Storage/disposal of material**
- **Optimize and leverage resources**

Radioactive Sources

- are used in medical, industrial, agricultural, academic, and government facilities for a variety of purposes
- have been abandoned or are placed in facilities that are often improperly maintained and poorly guarded
- could be potentially stolen and used for malicious purposes
- are scattered across the world at thousands of sites, and hundreds of them contain enough radioactive material for a "dirty bomb"

Disused and Unwanted Sources



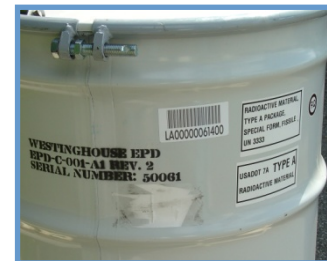
Regional Partnership

- GTRI has joined with the IAEA and the U.S. Department of State (DOS) in a Regional Partnership in South America to identify, condition, and dispose of disused and unwanted radioactive sealed sources



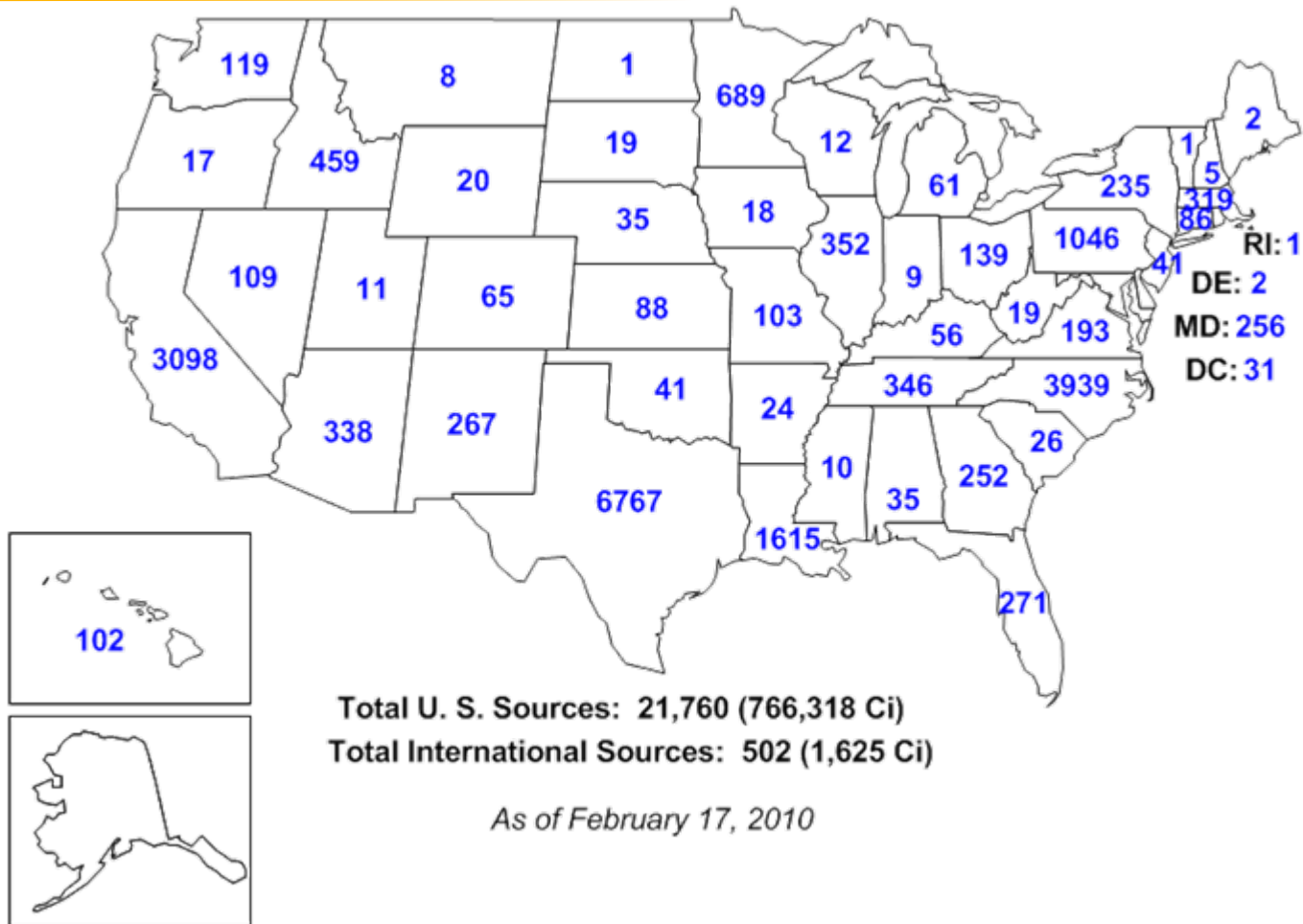
OSRP Recovery Summary

OSRP has recovered 22,447 sources as of July 2010.



**Activity upon recovery.*

OSRP Recoveries in the U.S.



Projects Around the Globe



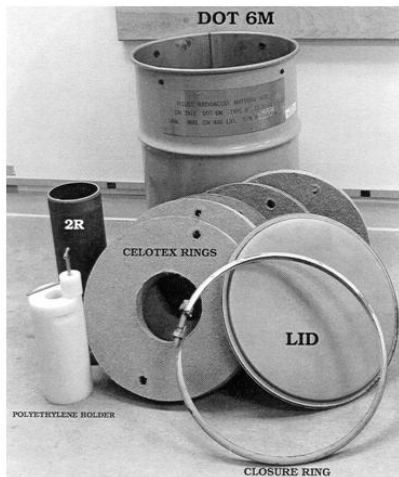
Country	Number of Sources	Total Activity (Ci)
Argentina	19	47.5
Australia	207	48.5
Brazil	127	170.3
Canada	3	2.4
Chile	431	26.7
Denmark	11	43.5
Ecuador	36	8.5
Israel	7	29.0
Italy	11	1209
Singapore	1	5E-3
South Africa	69	22.67
Sweden	9	19.1

Challenges

- Transportation
- Scheduling Conflicts
- Shipments by air
- Denial of shipment

Examples

- DOT 6M Package & 20WC Containers



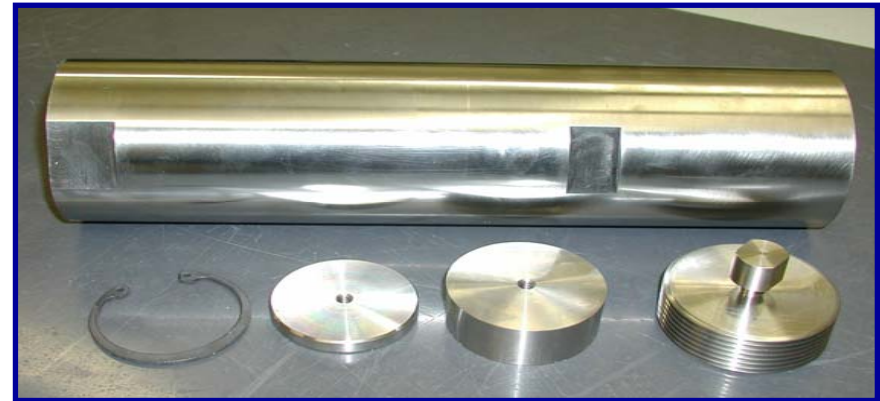
Sealed Source Conditioning Overpack

- **Simple**
- **Inexpensive**
- **Reliable**
- **Guaranteed Seal**
- **Achieves CoCA for International Shipments**
- **Safe, Stable, Secure**

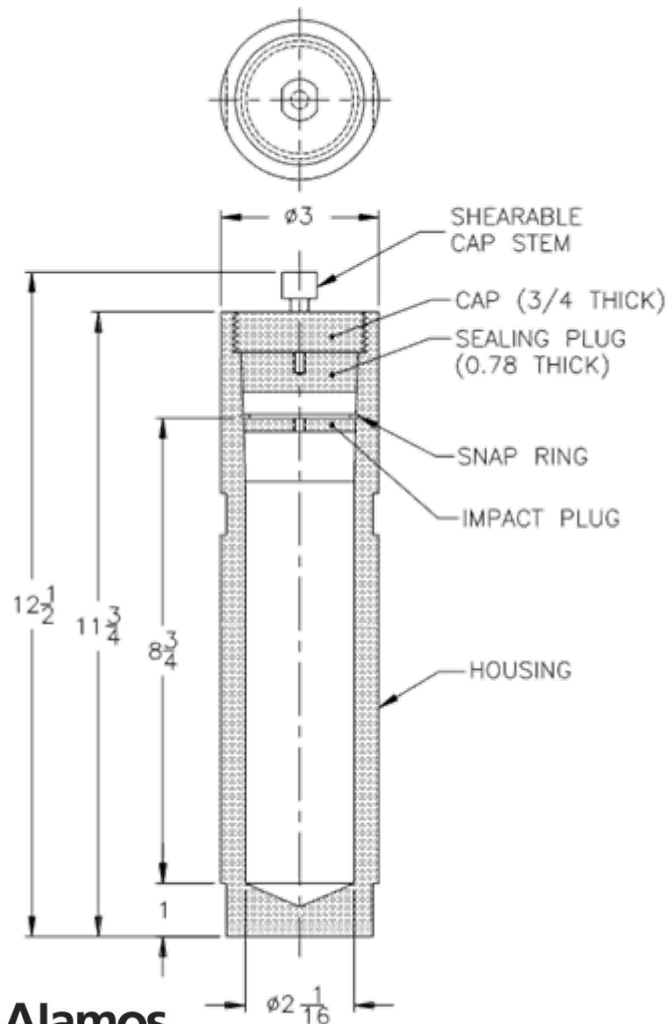


U.S. Department
of Transportation
Pipeline and
Hazardous Materials
Safety Administration

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE NUMBER USA/0696/S-96, REVISION 1

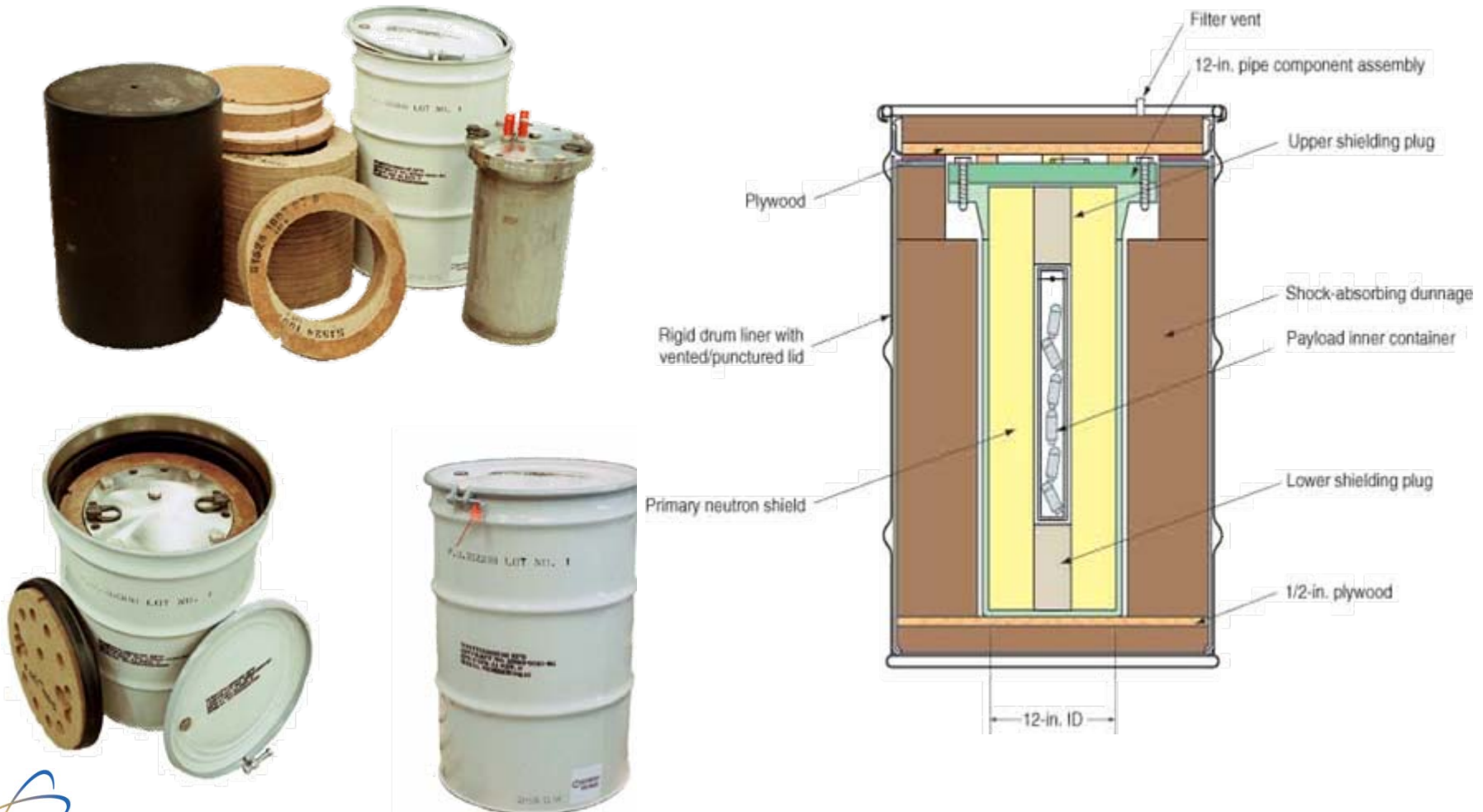


LANL Special Form Capsule



- Solves special form problem
- Useful for consolidation
- Useful for storage and disposition
- Solves some safety and security issues
- Allows Type A shipment

Type A Packaging: S300 POC



Conclusion

- GTRI/OSRP will continue to work to find ways to accelerate the recovery of high-activity sources.
- GTRI/OSRP is working to address recovery barriers.
- GTRI/OSRP will also continue to work to remove disposal barriers previously discussed.
- GTRI/OSRP's support for the DHS-chaired interagency focus group on disposal will continue to search for solutions to the lack of commercial disposal capacity.