FEDERAL EFFORTS TO IDENTIFY ALTERNATIVES TO HIGH ACTIVITY SOURCES

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INTERAGENCY WORKING GROUP ON ALTERNATIVES TO HIGH ACTIVITY RADIOACTIVE SOURCES (GARS)

Established June, 2015

Co-Chairs:

- **DOE/NNSA**
- **NRC**
- **DHHS/NIH**

“…ESTABLISHED BY ACTION OF THE NSTC COMMITTEE ON HOMELAND AND NATIONAL SECURITY (CHNS) SUBCOMMITTEE ON NUCLEAR DEFENSE RESEARCH AND DEVELOPMENT (NDRD).”

-- GARS Charter, June 2015

Motivation is that high activity sources = security concern

- **2002** – Congressman Ed Markey and Senator Hillary Clinton "Dirty Bomb Prevention Act" companion bills H.R.5023 and S.2684.
- **2004** – IAEA revised Code of Conduct on the Safety and Security of Radioactive Sources
- **2005** –Radiation Source Protection and Security Task Force established; first report to Congress in 2006: 10 recommendations, 13 actions.
- **2008** – National Research Council of the National Academies published its committee report "Radiation Source Use and Replacement"
- **2008** – Markey and Clinton "Nuclear Facility and Material Security Act" companion bills H.R.6816 and S.3444.
- **2010** – Radiation Source Protection and Security Task Force report to Congress
- **2014** – Radiation Source Protection and Security Task Force report to Congress

Increases to the physical security of existing devices (irradiator hardening, increased controls) are cited as an “interim measure” to provide enhanced protection of sources, specifically CsCl sources, currently in use.

Adopting alternatives to high activity radioactive sources is a potential means for achieving **permanent threat reduction.**

2014 TASK FORCE REPORT

"… all members support efforts to further reduce security risks by developing alternative technologies as replacements."

"…the U.S. Government, as appropriate, investigate options such as voluntary, prioritized, incentivized, programs for the replacement of Category 1 and 2 radioactive sources with effective alternatives."

"…U.S. Government agencies, where appropriate, lead by example in the consideration of and transition to alternative technologies that meet technical, operational, and cost requirements."

GARS PURPOSE AND SCOPE

- **Provide an assessment** on how Federal agencies are engaged in activities related to high activity radioactive sources and their alternatives
- **Engage relevant Federal agencies** in the development of ideas regarding their potential transition to alternative technologies
- **Support the process** to further the research and development of alternative technologies
- **Develop a best practices guide** for Federal agencies to adopt a long-term transition to alternative technologies

GARS INITIAL FOCUS

Initial focus is on medical applications:

- Blood irradiation
- Sterilization irradiators
- Research irradiators
- Radiotherapy devices

GARS TARGET AUDIENCE

Federal agencies that perform these functions:

- Procure or use high activity radioactive sources
- Fund or operate grant mechanisms to procure or use high activity radioactive sources
- Certify, license or set standards for the use of high activity radioactive sources
- Provide security enhancements and end-of-life management of high activity radioactive sources

GARS GOAL

Best practices guidance on measures that Federal agencies can consider incorporating to **promote and otherwise facilitate** the transition to alternative technologies into their **long-term strategic planning** in a way that meets **technical, operational, and cost requirements.**

GARS MEMBERSHIP

Department of Agriculture

Department of Commerce

Department of Defense

Department of Energy

Department of Health & Human Services

Department of Homeland Security

Department of Veterans Affairs

Environmental Protection Agency

Nuclear Regulatory Commission

Office of Science and Technology Policy

Office of Management and Budget

National Security Council

GARS TIMELINE

- **Working Group is chartered through December 31, 2016.**
- **DRAFT “Best Practices Guide for Federal Agencies” is due June, 2016.**
- **Agencies to concur by July, 2016.**
- **Implementation period through December, 2016.**