

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF FEDERAL AND STATE MATERIALS
AND ENVIRONMENTAL MANAGEMENT PROGRAMS
WASHINGTON, DC 20555-0001

January 21, 2010

**NRC REGULATORY ISSUE SUMMARY 2010-02
THE GLOBAL THREAT REDUCTION INITIATIVE (GTRI)
FEDERALLY FUNDED VOLUNTARY SECURITY ENHANCEMENTS
FOR HIGH-RISK RADIOLOGICAL MATERIAL**

ADDRESSEES

All U.S. Nuclear Regulatory Commission (NRC) Materials Licensees authorized to possess IAEA Category 1 or Category 2 quantities of radioactive materials. All Agreement State Radiation Control Program Directors and State Liaison Officers. Members of the Advisory Committee on the Medical Uses of Isotopes.

INTENT

The NRC is issuing this Regulatory Issue Summary (RIS) as an update to RIS 2008-23, "The Global Threat Reduction Initiative (GTRI) Domestic Threat Reduction Program & Federally Funded Voluntary Security Enhancements for High-Risk Radiological Material," dated October 3, 2008, RIS 2008-17, "Voluntary Security Enhancements for Self-Contained Irradiators Containing Cesium Chloride Sources," dated July 18, 2008, and RIS 2008-02, "Actions to Increase the Security of High Activity Radioactive Sources," dated February 1, 2008. This RIS requires no specific action, or written response.

BACKGROUND

The NRC is making licensees aware of and providing updated information about the Global Threat Reduction Initiative (GTRI) for voluntary security enhancements, which combines the pilot programs discussed in RIS 2008-23 and RIS 2008-17, and is now being nationally implemented on a voluntary basis. This program is sponsored by the Department of Energy's (DOE) National Nuclear Security Administration (NNSA), and has the support of the NRC and the Agreement State Radiation Control Programs. GTRI's voluntary security enhancements complement and do not replace NRC and Agreement State increased controls requirements.

The mission of GTRI is to reduce and protect high-risk nuclear and radiological materials located at civilian sites worldwide. GTRI achieves its mission by converting research reactors and isotope production facilities from the use of highly enriched uranium (HEU) to low enriched uranium (LEU), removing and disposing of excess nuclear and radiological materials, and protecting high priority nuclear and radiological material from theft and sabotage. In the United States, GTRI's objective is to further enhance the protection of these materials through voluntary security enhancement efforts. GTRI's voluntary security enhancements focus on (1) Elimination

(unwanted source removal), (2) Detection (remote monitoring, access control, motion detection, and cameras) (3) Delay (in-device delay (IDD) mechanisms, tie downs, and hardened doors/rooms), and (4) Response (equipment, alarm response training, and table top exercises for first responders).

The GTRI effort is one way for licensees to identify best practices beyond regulatory compliance. Under the program, GTRI security experts provide security assessments, share observations and make recommendations for enhancing material security. When appropriate, NNSA pays for the installation of agreed upon security enhancements. Typical security enhancements include automated access control, motion sensors, radiation sensors, electronic seals, alarm control and display systems, remote monitoring of licensee facilities at off-site response locations, enhanced security force communications and protection equipment, delay elements, and transportation security enhancements, when appropriate.

In cooperation with NRC, NNSA and DHS partnered with cesium irradiator manufacturers to develop IDD hardening kits for the most widely used models of cesium chloride (CsCl) blood and research irradiators. GTRI currently funds the installation of IDD kits for Best Theratronics Gammacell 40, 1000, 3000; JL Shepherd Mark 1 Model 22; and Pharamlucence (formerly CIS-US) IBL 437C CsCl irradiators at volunteer facilities. These enhancements consist of adding a set of protection hardware, including stainless steel security plates and tamper resistant fasteners, to the irradiators, which greatly increases delay times without affecting normal operation, use, maintenance, or service of the devices. GTRI requires the installers to use special measures such as sound dampening and exhaust/fume hoods to protect the area they are working within. Installations generally take 8 – 16 hours depending on the type of device, and can be scheduled to be conducted outside of normal irradiator operating hours.

SUMMARY OF ISSUE

While licensees regulated by NRC and Agreement States are responsible for the safety and security of licensed sources and meeting current regulatory requirements, the NRC and the Agreement States encourage licensees to work cooperatively with manufacturers, regulators, and other Federal, State, and local authorities to look for opportunities to further enhance the security of their sources and devices and incorporate best practices, as applicable and appropriate. The GTRI staff and contractors have valuable perspectives and experience on best practices from visiting multiple licensees and operations. The recommended security enhancements from the security assessments would be supplementary to, and consistent with, the NRC's and Agreement States' Increased Controls requirements. This voluntary program does not replace or diminish a licensee's responsibility to comply with the Increased Controls requirements or other regulatory requirements. If these enhancements are used to meet regulatory requirements, then the licensee is obligated to assume all responsibility for functionality and maintenance of the enhancements. The NRC and Agreement State regulator, as applicable, will be notified by NNSA prior to conducting a security assessment at a licensee's facility. In addition, NRC and Agreement States encourage licensees to discuss the recommended voluntary enhancements with their regulatory agency and clarify any questions that licensees may have regarding their specific enhancements. GTRI support is implemented on a voluntary basis and is provided at no cost to the licensee.

FEDERAL REGISTER NOTIFICATION

A notice of opportunity for public comment on this RIS was not published in the *Federal Register* because this RIS is informational and does not represent a departure from current regulatory requirements.

CONGRESSIONAL REVIEW ACT

This RIS is not a rule as designated by the Congressional Review Act (5 U.S.C. §§ 801-886) and, therefore, is not subject to the Act.

RELATED GENERIC COMMUNICATIONS

RIS 2008-02, "Actions to Increase the Security of High Activity Sources" (ML080150638)

RIS 2008-17, "Voluntary Security Enhancements for Self-Contained Irradiators Containing Cesium Chloride Sources" (ML081780599)

RIS 2008-23, "The Global Threat Reduction Initiative (GTRI) Domestic Threat Reduction Program & Federally Funded Voluntary Security Enhancements for High-Risk Radiological Material" (ML082540256)

PAPERWORK REDUCTION ACT STATEMENT

This RIS does not contain any information collections and, therefore, is not subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

CONTACT

If licensees have specific questions regarding the Global Threat Reduction Initiative and/or would like to express interest in participating, please contact Ms. Ioanna Iliopoulos, NNSA, at 202-586-1881, or ioanna.iliopoulos@nnsa.doe.gov

This RIS requires no specific action or written response. For licensing questions please contact the appropriate regional office listed below. For other NRC related questions, please contact one of the individuals from my office as listed below.

/RA/

Robert J. Lewis, Director
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