



Department of Energy
National Nuclear Security Administration
Washington, DC 20585



3/9/2017

Cindy Bladey
Office of Administration
Mail Stop OWFN-12-H08
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Ms. Bladey:

We are pleased to provide a response to the Nuclear Regulatory Commission (NRC) Federal Register Notice (FRN) requesting stakeholder comment in the Federal rulemaking Docket ID NRC-2016-0276, "Category 3 Source Security and Accountability," on behalf of the Department of Energy's (DOE) National Nuclear Security Administration's (NNSA) Office of Radiological Security. We commend the NRC on the measures it has taken to improve the safety and security of Category 1 and 2 sources, including implementation of 10 CFR 37, Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material, and the development of the National Source Tracking System (NSTS), the Web-Based Licensing System (WBL) and the License Verification System (LVS). These measures have reduced the risk associated with the use, transfer, and storage of these sources. Furthermore, because Category 3 sources pose risks as well, we believe that it is appropriate to include these sources in the NSTS and to include Category 3 licenses in the WBL.

As you know, Am-241, Cs-137, Co-60, and Ir-192 together account for over 99 percent of the sealed sources that pose the highest security risk,¹ and at the Category 3 level these sources are widely used for: calibration, industrial radiography, fixed industrial gauges, well logging, brachytherapy, and portable gauges.² Additionally, the International Atomic Energy Agency (IAEA) considers Category 3 sources to be sufficiently dangerous to warrant increased safety and security measures. However, these sources are not currently subject to the security requirements of Part 37, nor are they tracked in the NSTS. As the GAO noted in its 2014 Report on radiological source security, many of these sources are used in portable devices and stored in close proximity to one another when not in use.³ Many of these sources contain material near the upper Category 3 threshold. For example, this is often the case with Am-241 sources used in portable well-logging devices. As a result, aggregation of these sources remains a concern. In

¹ U.S. Nuclear Regulatory Commission, "The 2014 Radiation Source Protection and Security Task Force Report: Report to the President and the U.S. Congress Under Public Law 109-58, The Energy Policy Act of 2005," August 2014 (ADAMS Accession No. ML14219A642).

² U.S. Nuclear Regulatory Commission, "Interagency Working Group Report on Financial Assurance for Disposition of Category 1, 2, and 3 Radioactive Sealed Sources," March 2010 (ADAMS Accession No. ML100050105).

³ Government Accountability Office, Nuclear Nonproliferation: Additional Actions Needed to Increase the Security of U.S. Industrial Radiological Sources, 2014 (GAO-14-293).



many cases, only two Category 3 sources are required to create a Category 2 quantity of material. The National Research Council noted that:

“Sources that fall into Category 3 and lower can be assembled into Category 2 or 1 quantities of radioactive material. Further, it may be the case that some radiation sources near the upper threshold for Category 3 pose more serious risks than other sources that fall near the lower threshold of Category 2 in scenarios other than those used to create the source categorization system.”⁴

The NRC chaired 2014 Federal interagency Radiation Source Protection and Security Task Force Report cited similar concerns.⁵

Furthermore, the regulatory and administrative controls over generally licensed devices are not nearly as stringent as those required for specifically licensed sources. In its 2009 recommendation to the Commission to include Category 3 sources in the NSTS, NRC concluded that “[a]dding Category 3 sources to the NSTS with its inventory and tracking requirements will provide increased accountability of these dangerous sources due to timely knowledge of source whereabouts and an ability to confirm an individual licensee’s account of its nationally tracked sources within one business day of a transaction.”⁶ We concur with both the reasoning and the recommendation. Inclusion of Category 3 sources in the NSTS is an effective and efficient way to provide increased security and accountability of dangerous material.

We appreciate the opportunity to provide input to the important issue and encourage the NRC to proceed with rulemaking.

Sincerely,

Handwritten signature of Maegon Barlow, with the text "FOR" written above the signature and "M. Barlow" written below it.

Maegon Barlow, Director
Office of Radiological Security
National Nuclear Security Administration

⁴ National Research Council, Committee on Radiation Source Use and Replacement, “Radiation Source Use and Replacement, Abbreviated Version,” 2008.

⁵ U.S. Nuclear Regulatory Commission, The 2014 Radiation Source Protection and Security Task Force Report, Report to the President and the U.S. Congress Under Public Law 109-58, The Energy Policy Act of 2005, August 2014 (ADAMS Accession No. ML14219A642).

⁶ US Nuclear Regulatory Commission, SECY-09-0086, “Final Rule: Expansion of the National Source Tracking System (RIN 3150-A129), June 10, 2009.