



Source Security Working Group

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March 10, 2017

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

Subject: Comments on Notice Regarding Category 3 Source Security and Accountability (Docket ID No. NRC-2016-0276)

Dear Ms. Bladey:

On behalf of its members, the Source Security Working Group (SSWG) appreciates the opportunity to provide general and specific comments regarding Category 3 Source Security and Accountability. The SSWG is an alliance of industry sectors, including energy, health care, oil and gas, and industrial radiography. We seek to ensure continued access to radiological sources, such as those used in the 85,000 nuclear medical and radiation oncology procedures performed each day worldwide, or the 400 million cubic feet of medical products sterilized every year. We support risk-informed, science-based policy that balances the benefits of radioisotopes with their safe and secure usage.

In general, Category 3 commercial sources have a long record of safe and secure usage. Over the past decade, a total of 37 Category 3 sources have been reported lost, abandoned or stolen, excluding irretrievable well-logging events, with only three not recovered.¹ It is our understanding that two of these three were plutonium-powered pacemakers buried with the deceased, and the third is currently at the bottom of the Gulf of Mexico. Additionally, as the NRC notes, “there has been no overall increase in the number or types of suspicious activities tracked by the NRC that are related to the use of radioactive materials” at facilities which contain them.²

A significant thrust of NRC’s request for comments is aimed at quantifying the “increase in safety and/or security” of the various enhanced accountability measures proposed in the notice. Given that this notice was prompted in large part by the 2015 GAO-16-330 “sting” audit, we interpret these safety and security benefits to refer to reductions in public risk from illicitly-obtained Category 3 sources for use in terrorist acts. To this end, SSWG agrees with the conclusion of the National Research Council:

¹ SECY-16-0050 Enclosure: “Nuclear Material Event Database: Annual Report.” U.S. Nuclear Regulatory Commission, March 2015, p 6. <https://www.nrc.gov/docs/ML1606/ML16060A360.pdf>

² “Effectiveness of Part 37 of Title 10 of the *Code of Federal Regulations*.” U.S. Nuclear Regulatory Commission, December 2016, p 14. <https://www.nrc.gov/docs/ML1634/ML16347A398.pdf>

“It is not possible to monetize the terrorism risks because we do not have a firm basis for predicting the relationship between particular radiation source uses and the expected costs of terrorism. While it may be possible to identify representative scenarios of RDD deployment or other acts of terrorism involving radiation sources, it is not possible to quantify the probabilities of these scenarios or how any particular type of radiation source contributes to them.”³

As such, any identified benefit of a proposed change should be considered a “qualitative factor” for purposes of NRC consideration, and use of that qualitative factor should be as limited as possible in order to “make every reasonable effort to apply alternative tools that can provide a quantitative perspective...concerning the value of the proposed action.”⁴

Given the lack of proposed methodology and data to measure these benefits, the inherent uncertainties in qualifying the benefits of proposed changes should also be taken into account within the NRC’s analysis. Any analysis should also take care to “distinguish the effects that are likely to be significant enough to warrant serious consideration by decision-makers from those that are likely to be minor.”⁵ It is the opinion of the SSWG that any benefits qualified by NRC analysis are likely to fall into the latter category.

Our responses to the specific questions posed in the Federal Register are as follows.

Should Category 3 sources be included in the NSTS?

We do not support inclusion of Category 3 sources in the NSTS, or any additional rulemaking on security or tracking requirements at this time. The SSWG believes that current security, tracking, and verification requirements for Category 3 quantities of radioactive material are safe, effective, and appropriate given the level of risk for Category 3 sources as compared to Category 1 and 2, and as proven by the positive historical safety and security record of use, handling and transport of these sources.

Would there be an increase in safety and/or security if the regulations were changed to include Category 3 sources in the NSTS? If so, how much of an increase would there be?

Given the risk level involved, it is difficult to quantify any meaningful or tangible benefits that may accrue by including Category 3 sources in the NSTS. Conversely, the increased burden to both industry and regulators is easier to measure. Including Category 3 sources in the NSTS would result in increased

³ “Radiation Source Use and Replacement.” Committee on Radiation Source Use and Replacement, National Research Council, National Academies of Science, 2008.

⁴ NUREG/BR-0058, Rev 4: “Regulatory Analysis Guidelines of the U.S. Nuclear Regulatory Commission,” U.S. Nuclear Regulatory Commission, September 2004, p. 24. <https://www.nrc.gov/reading-rm/doc-collections/nuregs/brochures/br0058/br0058r4.pdf>

⁵ “Regulatory Impact Analysis: A Primer.” Office of Information and Regulatory Affairs, Office of Management and Budget, p 16. https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/regpol/circular-a-4_regulatory-impact-analysis-a-primer.pdf

costs and time spent by both industry and regulators ensuring compliance. Further, significant resources would be required by NRC to: 1) ensure NSTS is robust enough to manage the ongoing and very significant influx of Category 3 source data while not decreasing its capability to properly and adequately manage Category 1 and 2 source data; 2) physically manage the administration of NSTS physically; and 3) monitor, analyze and take appropriate action derived from information in the NSTS. This increased burden is not in line with the risks Category 3 quantities of radioactive material may pose.

Would there be an increase in safety and/or security if the regulations were changed to only allow license verification through the NRC's License Verification System (LVS) or the transferee's license issuing authority for transfers of Category 3 quantities of material? If so, how much of an increase would there be?

Although we do not support further tracking and security requirements in general, specifically including Category 3 sources in a License Verification System (LVS) in order to verify licensees before transfer, may provide an increase in safety and security for users and regulators. Again, the benefit is difficult to quantify, but verifying licensees before transfer would not be as burdensome as full implementation of both NSTS and LVS systems for industry and regulators.

However, while including Category 3 sources in LVS would help prevent license forgery, LVS as currently structured would not prevent bad actors from aggregating quantities of material in excess of their licensed limit from multiple providers simultaneously.

Should the NRC consider alternatives to the current NSTS reporting requirements for Category 1 and 2 sources to increase the immediacy of information availability, such as requiring the source transfers to be reported prior to, or on the same day as, the source shipment date?

We do not support any changes to the NSTS reporting requirements for Category 1 and 2 to increase the immediacy of information available. Current reporting requirements are safe and effective, and changes to the requirements would not provide any meaningful additional safety or security benefits.

We appreciate the opportunity to comment on Category 3 Source Security and Accountability. We also would like to sincerely thank the NRC for its significant efforts to provide opportunities for comment through its public meetings and webinars. If you have any questions or require additional information, please do not hesitate to contact us at info@sourcesecurityworkinggroup.org or (202) 509-9644.

Sincerely,



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