

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: Commissioner Baran

SUBJECT: SECY-16-0115: Rulemaking Plan on Financial Assurance for Disposition of Category 1 and 2 Byproduct Material Radioactive Sealed Sources

Approved Disapproved Abstain Not Participating

COMMENTS: Below Attached None

Entered in STARS

Yes

No



Signature

10/26/16

Date

**Commissioner Baran's Comments on SECY-16-0115,
"Rulemaking Plan on Financial Assurance for Disposition of Category 1 and 2
Byproduct Material Radioactive Sealed Sources"**

In this paper, the NRC staff requests approval to initiate a rulemaking to require financial assurance for the disposition of Category 1 and 2 byproduct material radioactive sealed sources.

Under NRC's current regulations, many Category 1 and 2 sealed sources are not required to provide financial assurance for decommissioning. As a result, these licensees are not required to submit a decommissioning funding plan or have a financial instrument in place to cover the eventual transportation and disposal costs. This is because the current regulatory threshold for the financial assurance requirement is very high. For example, one of the most commonly used radionuclides in large sealed sources is Cesium-137. Twenty-seven curies of Cesium-137 qualifies as a Category 2 quantity, which subjects the source to physical security and source tracking requirements. But a licensee is not required to meet financial assurance requirements unless it possesses 100,000 curies of Cesium-137. Similarly, 8.1 curies of Cobalt-60 qualifies as a Category 2 quantity, but financial assurance requirements do not kick in until a licensee possesses 10,000 curies of Cobalt-60.

Financial assurance for disposition of sealed sources is important because end-of-life costs for these sources "can be significant and unpredictable."¹ In addition to disposal costs, there are costs for storage, packaging, and transportation. Cesium-137 irradiator decommissioning costs average about \$42,000 for approximately 250 curies of material. For irradiators with 1,800 curies of Cobalt-60, decommissioning costs average around \$82,000.²

If a licensee has not set aside funds to cover these costs or planned financially for disposal, it may not have the funds to dispose of the sealed source, increasing the risk that the source will remain in storage year after year and may eventually be abandoned. Licensees are not required to declare when radioactive sealed sources in their possession are unwanted, nor are they required to provide for prompt dispositioning of such sources. According to the NRC staff, "[i]f a licensee has not anticipated and planned for the cost of dispositioning, it may represent a significant financial burden. As a result, licensees may choose indefinite long-term storage as the most practical management option."³

The Radiation Source Protection and Security Task Force, which is comprised of 14 federal agencies as well as the Organization of Agreement States, has echoed this concern. In its 2006 report, the Task Force found that some NRC licensees "may not have sufficient funds set aside to cover the costs of disposal or other appropriate disposition, potentially resulting in prolonged storage and possible misuse or abandonment."⁴ In its 2010 report, the Task Force reiterated that "while secure storage is a temporary measure, the longer sources remain disused or unwanted the chances increase that they will become unsecured or abandoned."⁵ The 2014 Task Force report explained that financial assurance requirements "are likely to

¹ SECY-16-0046 at 6.

² "Interagency Working Group Report on Financial Assurance for Disposition of Category 1, 2 and 3 Radioactive Sealed Sources" (Mar. 2010) at 13-14.

³ SECY-16-0115 at 3.

⁴ "Report of the Radiation Source Security and Protection Task Force" (Aug. 16, 2006) at 107.

⁵ "Report of the Radiation Source Security and Protection Task Force" (Aug. 11, 2010) at iii.

decrease the time that commercial sealed sources remain in storage because the funds necessary for source disposal will be immediately or quickly available.”⁶

The abandonment of a sealed source poses safety and security risks because there is no assurance that proper controls over such a source are in place to protect public health and safety. Abandoned sources can also result in the costs of disposal being shifted from the licensees who benefitted from the sources to taxpayers. In its 2005 report, the Government Accountability Office cited one example where the National Nuclear Security Administration (NNSA) ended up bearing \$581,000 in costs to dispose of sources that had accumulated at a bankrupt firm in Pennsylvania.⁷ Through NNSA’s Orphan Source Recovery Project and the Source Collection and Threat Reduction program, which is administered by the Conference of Radiation Control Program Directors, the federal government has borne substantial costs to dispose of tens of thousands of unwanted or abandoned sources that could have posed a risk to health, safety, and national security.⁸ NNSA has informed the NRC staff that this level of taxpayer-funded government assistance is “not sustainable.”⁹ Yet, the existence and widespread use of these programs indicate that NRC’s regulations do not currently provide a sufficient incentive for licensees to promptly dispose of sealed sources that are no longer in use.

The NRC staff proposes to extend the current financial assurance requirements in 10 CFR § 30.35 to all Category 1 and 2 byproduct material radioactive sealed sources currently tracked in the National Source Tracking System. The staff has concluded that “rulemaking is the most effective way to ensure that adequate financial resources are available to disposition Category 1 and 2 byproduct material” radioactive sealed sources.¹⁰ Consistent with the Commission’s preference for disposal of low-level waste over storage, the staff believes that financial assurance requirements would reduce the use of long-term storage as a management option.¹¹ According to the staff, a rulemaking would also “[h]elp ensure that dispositioning costs are borne by those who receive the associated economic benefits from the use of these sources.” I agree with the staff and approve initiation of this rulemaking.

As part of this rulemaking, the staff should consider and seek public comment on whether financial assurance requirements should also be extended to Category 3 sources. In its 2010 report, the Interagency Working Group, which included staff from NRC, DOE, the State Department, EPA, and three states, recommended that NRC establish financial assurance requirements for all Category 1, 2, and 3 sealed sources.¹² The Disused Sources Working Group, whose broader membership includes NNSA, the Low-Level Radioactive Waste Forum, Agreement States with low-level waste disposal sites, low-level waste compacts, and industry stakeholders, made the same recommendation in 2014.¹³ Public comments received in response to the 2015 *Federal Register* Notice on NRC’s byproduct material scoping study also

⁶ “Report of the Radiation Source Security and Protection Task Force” (Aug. 7, 2014) at 35.

⁷ GAO-05-967, “DOE Needs Better Information to Guide Its Expanded Recovery of Sealed Sources” (Sept. 2005).

⁸ SECY-16-0046 at 30-31.

⁹ *Id.* at 31.

¹⁰ SECY-16-0115 at 6.

¹¹ “Low-Level Radioactive Waste Management and Volume Reduction,” 77 FR 25760 at 25781 (May 1, 2012).

¹² “Interagency Working Group Report on Financial Assurance for Disposition of Category 1, 2 and 3 Radioactive Sealed Sources” (Mar. 2010) at 13-14.

¹³ Low-Level Radioactive Waste Forum, Inc., “Report of the Disused Sources Working Group” (Mar. 2014) at 18.

expressed this view. At the October 18, 2016, public Commission meeting, the NRC staff indicated that it would explore and seek stakeholder views on including Category 3 sealed sources in this rulemaking. I think that is the right approach. The notice and comment rulemaking process provides an opportunity to understand and weigh the pros and cons of establishing financial assurance requirements for all three categories of radioactive sealed sources.