

FEB 28 2020



UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899
OFFICE OF THE DIRECTOR

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

License No. SNM-362
Docket # 70-398
TAC No. L32643

Mr. Tyrone Naquin
Project Manager, Fuel Facility Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: REPLY TO REQUEST FOR ADDITIONAL INFORMATION – 2019
DECOMMISSIONING FUNDING PLAN SUBMITTAL

Dear Mr. Naquin,

The National Institute of Standards and Technology (NIST) intends to manage its radioactive sources inventory in a manner that will ensure adequate disposition in the event licensed activities need to be suspended for the SNM-362 license. The attached response to the Request for Additional Information (ML20030A679) further clarifies the key assumptions and basis for the cost estimate associated with the disposition of NIST-owned sources and customer-owned sources.

Thank you for your attention to this letter and attached response. If you have further questions about this response, please contact the NIST Gaithersburg Radiation Safety Officer, Mr. Manuel Mejias at 301-975-5800 or manny.mejias@nist.gov.

Sincerely,

Walter G. Copan, Ph.D.
Under Secretary of Commerce for Standards and Technology &
Director, National Institute of Standards and Technology

Enclosure
DFP RAI Response

cc:

E. A. Mackey, NIST Chief Safety Officer
A. K. Thompson, NIST IRSC Chair
M. Mejias, NIST Radiation Safety Officer
H. Wixon, NIST Chief Counsel

NM5501

NIST

**NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
SPECIAL NUCLEAR MATERIAL LICENSE SNM-362, (DOCKET NO. 70-0398)
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION
DECOMMISSIONING FUNDING PLAN UPDATE**

Background

On February 4, 2020, NIST was asked to justify key assumptions in the Decommissioning Cost Estimate (DCE) related to the disposition of inventory (Title 10 Code of Federal Regulations [10 CFR] Part 70.25(e)(2)(v); 10 CFR 70.25(e)(1)(i)(A); 10 CFR 70.25(e)(1)(ii)). NIST was also informed that the Draft Interim Staff Guidance on Decommissioning Funding Plans for Materials Licensees, developed by NRC (ML 18163A087), offers guidance supplemental to NUREG 1757 Vol. 3, describing ways in which the disposition of inventory can be covered in the Decommissioning Cost Estimate (DCE). NIST was specifically asked to provide further explanation for the basis of the costs included in the 2016 Decommissioning Funding Plan (DFP), which were incorporated in the 2019 DFP, for the packing, shipping, and disposal of sealed sources.

NIST-Owned Inventory

In the Request for Additional Information (RAI), NIST was asked to provide further explanation for the basis of costs included in the 2016 DFP. The basis had been presented in table form in table 3.14, "PACKAGING, SHIPPING, AND DISPOSAL OF RADIOACTIVE WASTES" (page 354 of 359, ML16279A280) and table 3.18, "TOTAL DECOMMISSIONING COSTS" (page 358 of 359, ML16279A280). The tables break down each category of material for packaging, shipping, and disposal costs. The RAI mentioned a special waste dispositioning project undertaken by NIST in 2015 in which Ecology Services, Inc., brokered and facilitated dispositioning and asked whether this contract was relied upon for adjustments to the DCE. In response, NIST advises that the contract served to confirm the basis presented in the previous DCE, and did not result in cost adjustments. The assumptions and methodology used by NIST for its DFP are intended to ensure that the full cost of dispositioning the NIST inventory is accurately incorporated into the DCE.

Customer-Owned Inventory

The RAI indicated that the Draft Interim Staff Guidance on DFPs for Materials Licensees allows an alternative to including the costs for packaging, loading, and transporting of radioactive sources if the licensee has existing contracts under which the customer is responsible for the costs. NIST enters into Cooperative Research and Development Agreements (CRADAs) and Inter-Agency Agreements (IAAs) in which ownership is clearly established as a responsibility for the customer for a small number of sources. NIST does not in these agreements seek to obtain credit and thereby to reduce the financial liability. In preparing its response to the RAI, NIST carefully reviewed the number of sources used in previous calculations and has confirmed that NIST's worst-case scenario assumption was, in fact, applied in NIST's previous submittals. NIST acknowledges that previous submittals

indicated that customer-owned sources would be returned to the customer. However, NIST's practice has been to prepare the DCE assuming a worst-case scenario, under which NIST is responsible for the entire inventory, whether it is customer-owned or not. Furthermore, NIST has an active waste disposal contract to permit the disposition of unsealed sources (i.e. Dry Active Waste - DAW) that is already funded and available. In summary, NIST ensures that the disposition of customer-owned inventory is covered in the DCE and is not dependent on agreements or contracts, and that the DCE reflects NIST's assumption of the obligation to pay for dispositioning of the sources.