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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 30, 2018

Ms. Lisa Edwards
Electric Power and Research Institute
3420 Hillview Avenue
Palo Alto, CA 94304

Dear Ms. Edwards:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter dated April 20, 2018 (Agencywide Documents Access and Management System Accession (ADAMS) No. ML18113A348), requesting a fee exemption under PART 170.11(a)(1)(ii) of Title 10 of the *Code of Federal Regulations* (10 CFR) for NRC review and endorsement of the Electric Power and Research Institute (EPRI) Report, No. 3002005564 entitled "Development of Generic Scaling Factors for Technetium-99 (Tc-99) and Iodine-129 (I-129) in Low and Intermediate Level Waste" (EPRI Report). 10 CFR 170.11(a)(1)(ii) states, "No application fees, license fees, renewal fees, inspection fees, or special project fees shall be required for . . . [a] special project that is a request/report submitted to the NRC . . . [w]hen the NRC, at the time the request/report is submitted, plans to use the information . . . to assist the NRC in generic regulatory improvements or efforts (e.g. rules, regulatory guides, regulations, policy statements, generic letters, or bulletins)."

For background, Appendix G of 10 CFR Part 20, "Requirements for Transfers of Low-Level Radioactive Waste Intended for Disposal at Licensed Land Disposal Facilities and Manifests" requires that an NRC uniform manifest be prepared for waste intended for ultimate disposal at a low-level radioactive waste land disposal facility, and that certain radionuclides, including tritium (H-3), carbon-14 (C-14), Tc-99, and I-129, contained in the shipment be reported on the uniform manifest. These radionuclides must be reported on the uniform manifest due to potential for groundwater pathway impacts. Given these potential impacts, NRC guidance provides that if these four radionuclides are present in the waste in quantities less than the Lower Limit of Detection (LLD), they must be reported as being present at the LLD value on the uniform manifest. See NUREG/BR-0204, Revision 2, "Instructions for Completing NRC's Uniform Low-Level Radioactive Waste Manifest." As noted in Regulatory Issue Summary (RIS) RIS-2015-02 "Reporting of H-3, C-14, TC-99, and I-129 on the Uniform Waste Manifest", however, research indicates that the use of the LLD values may result in a significant over-estimation of the inventory of these four radionuclides in disposal facilities. Overestimation of inventory could lead to premature loss of disposal system capacity (e.g., closure of disposal sites), whereas underestimation of inventory could lead to public health and safety concerns. Consequently, RIS-2015-02 permits licensees with well-characterized and consistent waste streams, like nuclear power plants, to use indirect methods to determine the activity of H-3, C-14, Tc-99, and I-129 reported on the uniform manifest when these radionuclides are present at a concentration less than the LLD. One type of indirect method presented in RIS-2015-02 is the use of scaling factors.

The EPRI Report evaluates generic scaling factors for two of the above mentioned hard to measure radionuclides, Tc-99 and I-129, in low and intermediate level waste from power reactors. As recognized in RIS-2015-02, the reporting of more accurate information for risk-significant radionuclides on uniform manifests may result in a more reliable performance assessments and lead to better decision-making regarding the disposal of low-level radioactive waste. More accurate reporting of these radionuclides is also important because the inventory of radionuclides is a key parameter in determining the projected dose from the groundwater pathway in a performance assessment.

Accordingly, the NRC staff concludes that the review of EPRI Report may “assist the NRC in generic regulatory improvements or efforts” by informing the staff’s possible revisions of the guidance in RIS-2015-02 and/or NUREG/BR-0204. Thus, EPRI’s fee waiver request is approved as satisfying the fee exemption criteria in 10 CFR 170.11(a)(1)(ii). If you have any technical questions regarding this matter, please contact Mr. Chris McKenney at (301) 415-6663. Please contact Mr. William Blaney, of my staff, at (301) 415-5092 for any fee-related questions.

Sincerely,

/RA/

Maureen E. Wylie
Chief Financial Officer

SUBJECT: LETTER TO LISA EDWARDS, EPRI IN RESPONSE TO A FEE WAIVER
 DATED APRIL 20, 2018. (EPRI REPORT NO. 3002005564); RESPONSE LETTER
 DATED: May 30, 2018

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