



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

January 04, 2000

Mr. Gregory E. Johnson, Chief  
Hazardous, Toxic, and Radioactive Waste Branch  
Engineering Division  
U.S. Army Corps of Engineers  
P.O. Box 1715  
Baltimore, MD 21203-1715

SUBJECT: DISPOSAL OF RADIOACTIVE WASTE FROM COLONIE, NY, FUSRAP SITE

Dear Mr. Johnson:

I am writing in response to your letter of August 27, 1999, to Mr. John Hickey, U.S. Nuclear Regulatory Commission (NRC), in which you requested our concurrence with your proposed approach for disposing of radioactive waste from the Colonie, NY, Formerly Utilized Sites Remedial Action Program (FUSRAP) site. You state that some of the waste at the site contains "unimportant quantities" of source material, as defined in our regulations in 10 CFR 40.13(a), and that you intend to ship these to a RCRA disposal facility. You also note that some materials may contain enriched uranium, and you provide a method for distinguishing between source material (i.e., material without enriched uranium) and enriched uranium. My staff has spoken with Mr. Hans Honerlah of your office several times in the last two months concerning this issue, and we understand that you have not shipped these materials as yet, pending our response to your letter.

The NRC is currently evaluating options for revising 10 CFR Part 40, "Domestic Licensing of Source Material," including a proposal for § 40.13(a) that would address the issue of disposal of unimportant quantities of source material (i.e., material with less than 0.05% source material by weight). On November 1, 1999, the staff submitted a paper to the Commission (SECY-99-259, available at <http://www.nrc.gov/NRC/COMMISSION/SECYS/index.html>) that discusses these options. The Commission will provide direction to the staff on these matters in the near future. In the interim, the Commission has chosen to address these disposals on a case-by-case basis. Under current Commission direction, the staff will not object to transfers of such material for disposal from NRC licensees which will result in individual doses less than 1 millisievert per year (100 mrem/year). The staff will notify the Commission of all proposed transfers by licensees which could result in individual doses that exceed 0.25 millisievert per year (25 mrem/year).

With respect to manifesting of unimportant quantities of source material, your understanding that manifesting pursuant to 10 CFR 20.2006 is not required is correct. This section only applies to transfers of low-level radioactive waste intended for a Part 61 disposal facility.

Your letter also proposes to distinguish between source material and special nuclear material by defining special nuclear material as having a  $^{235}\text{U}$  content of one or more percent by weight. This interpretation is contrary to our regulations in 10 CFR 110.2, which defines special nuclear material as uranium enriched to greater than 0.711%  $^{235}\text{U}$ . Also, we regulate special nuclear material in accordance with the regulations in 10 CFR Part 70, so that the "unimportant quantity" provision in 10 CFR Part 40 does not apply to these materials.

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Your characterization of our positions on disposal of "unimportant quantities" of source material is generally correct. In the two cases you cite where we have specifically addressed this issue (Metcoa and Lake City Ammunition Plant), the staff also considered the dose consequences of the proposed disposals compared to a zircon sand disposal scenario presented in a draft Oak Ridge National Laboratory Report, "Systematic Radiological Assessment of Exemptions for source and Byproduct Material." We recommend that you also consider dose consequences for any proposed disposals of unimportant quantities of source material. You should also ensure that whatever regulatory requirements imposed on the proposed disposal site by the Environmental Protection Agency or the State will be met.

Your letter also proposes to distinguish between source material and special nuclear material by defining <sup>235</sup>U with a percent mass of less than one to be source material. This would be contrary to our regulations in 10 CFR 110.2 which define special nuclear material as uranium enriched to greater than 0.711% <sup>235</sup>U.

If you have any questions, please call James Kennedy of my staff at 301-415-6668.

Sincerely,

John J. Surmeier, Chief  
 Uranium Recovery and Low-Level  
 Radioactive Waste Branch  
 Division of Waste Management  
 Office of Nuclear Material Safety  
 and Safeguards

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As you know, NRC does not regulate activities at FUSRAP sites and thus we have no authority to formally concur on your decisions. However, we trust that our clarification of the above regulations will be useful in your decisionmaking for disposal options. If you have any questions, please contact James Kennedy of my staff at 301-415-6668.

Sincerely,  
 Original Signed By  
 Thomas H. Essig, Chief  
 Uranium Recovery and Low-Level  
 Radioactive Waste Branch  
 Division of Waste Management  
 Office of Nuclear Material Safety  
 and Safeguards

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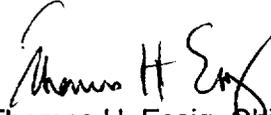
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*Handwritten signature and date: 1/9/00*

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