

May 23, 2000

Mr. Jonathan P. Carter, General Counsel
Envirocare of Utah, Inc.
46 West Broadway, Suite 116
Salt Lake City, Utah 84101

SUBJECT: "UNIMPORTANT QUANTITIES" OF SOURCE MATERIAL

Dear Mr. Carter:

I am writing in response to your letter of March 6, 2000, concerning the U.S. Nuclear Regulatory Commission's (NRC) exemption of less than 0.05 percent by weight source material (or "unimportant quantities" of source material). In your letter, you comment on the staff's recommendation to the Commission in SECY-99-259, "Exemption in 10 CFR Part 40 for Materials Less than 0.05% Source Material—Options and Other Issues Concerning the Control of Source Material," to develop a proposed rule to amend §§ 40.51(b)(3) and (4) that address transfers of source material. You also requested that transfers of these exempt materials be put on hold until issues are addressed in our rulemaking. As we noted in a November 15, 1999, letter from William Travers, NRC, to Charles Judd of Envirocare, the wording of §§ 40.13(a) and 40.51(b)(3), allows licensees to transfer material at this concentration level to any individual exempt from the regulations without prior Commission approval. In the absence of a regulation, the Commission would have to make a determination that public health and safety were at risk to prevent such transfers.

Your letter refers to information in our recently released draft of NUREG-1717, "Systematic Radiological Assessment of Exemptions for Source and Byproduct Materials" as a basis for your request. You noted that in one case, a dose of 4 rem/year was reported for unimportant quantities of source material and stated that this dose is well above what is allowed by regulation at Envirocare's low-level radioactive waste disposal facility. You also stated that it is incongruous to allow for the unregulated disposal of these materials while issuing a report that states these materials represent the highest levels of risk. These statements misconstrue the facts. First, the 4 rem/year dose we reported in NUREG-1717 was a hypothetical dose based on a number of conservative assumptions, such as continuous, non-stop exposures of a worker to high levels of dust while processing zircon flour without the use of respiratory protective equipment. Second, the 4 rem/year dose to a hypothetical worker in NUREG-1717 is within the dose limit specified for the Envirocare facility, not "well above" the limit that Envirocare must meet. Condition 18 in your license for low-level waste disposal refers to Utah Annotated Code R313-15, "Standards for Protection Against Radiation," which allows for radiation doses to workers of up to 5 rem/year. Third, our analysis of landfill disposal scenarios in NUREG-1717 indicated that doses to members of the public would range from a fraction of a mrem/year up to 10 mrem/year.

As noted in your letter and NRC's November 15, 1999, letter to Mr. Judd, the staff provided to the Commission, in SECY-99-259, options for revising §§ 40.13(a) and 40.51(b)(3). On March 9, 2000, the Commission issued a Staff Requirements Memorandum for SECY-99-259, directing that the staff initiate the development of a proposed rule to amend §§ 40.51(b)(3) and (b)(4). The

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Commission requested that the proposed draft rule be provided to them by September 8, 2000. In reaching this decision, the Commission considered the broad range of issues and options identified in SECY-99-259, and decided that development of proposed rule was the appropriate action to take. The proposed rule will be published for public comment, and we look forward to receiving your views at that time. Pending the development of this rule, the staff's current position is that it will not object to transfers of such material for disposal that will result in individual doses less than 1 millisievert (100 millirem) per year, but will notify the Commission of all proposed transfers that could result in individual doses that exceed 0.25 millisievert (25 millirem) per year.

I trust this responds to your concerns.

Sincerely,

/RA/

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

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