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OFFICE OF SECRETARY
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Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

ATTN: Rulemakings and Adjudications Staff

The U.S. Environmental Protection Agency (EPA) is pleased to provide comments on the proposed rule titled "Transfers of Certain Source Materials by Specific Licensees" published August 28, 2002 in the *Federal Register* (67 FR 55175). This rule would require the U.S. Nuclear Regulatory Commission (NRC) to approve transfers of low-concentrations of source material from licensees to persons exempt from licensing.

As indicated in NRC's proposal, transfers of materials containing low-concentrations of source material should be accomplished in a manner protective of public health. EPA's Office of Radiation and Indoor Air endorses this goal and offers the following comments to strengthen NRC's proposed rule. Presently, NRC licensees may transfer source material less than 0.05 percent by weight to persons exempt from licensing requirements under 10 CFR 40.13(a). As noted by NRC (67 FR 55176), in certain situations such transfers could potentially produce individual doses exceeding 100 millirem/year. EPA is pleased that the proposed rule would require NRC approval of such transfers. However, EPA is concerned that such elevated dose levels would continue to be approved for materials no longer regulated for their radiological content.

Although NRC lists factors that may be considered in its evaluation, the Commission offers no indication as to how such factors might be used to deny an application for transfer. Furthermore, the factors listed by NRC, though not exhaustive, do not include an explicit limitation on dose to members of the public, albeit the notice suggests that such dose concerns led the Commission to review the need for regulation of these transfers. NRC's suggestion that dose levels of 25 to greater than 100 millirem/year are "acceptable" under such review appears incongruous with the very concept of "unimportant quantities." By accepting such transfers, NRC would allow doses from unimportant quantities to exceed those allowed from licensed radioactive waste disposal facilities (e.g., 25 millirem/year from low-level radioactive waste sites under 10 CFR part 61). NRC further suggests that transfers of material involving doses greater than 100 millirem/year would be among those transfers eligible for approval, despite both

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national and international recommendations that total dose to individuals be no more than 100 millirem/year from all sources and practices.

EPA does not believe transfers of material with such high dose levels appropriate. In its work on restricting dose at high-level radioactive waste disposal sites, the Agency has regulated to a limit of 15 millirem/year (i.e., 40 CFR 191.15 and 40 CFR 197.20) with ground water protection provisions. In addition, it would appear that transfers for the purpose of direct disposal would be approved at dose levels that are extraordinarily high, particularly when such disposal may occur at EPA-permitted Resource Conservation and Recovery Act (RCRA) facilities not designed for such disposal. At a minimum, disposal at EPA-regulated facilities should be consistent with EPA's risk management policies. The proposed rule sets up an internal NRC approval process that does not inherently restrict dose and offers little, if any, public involvement and notice for doses exceeding 15 millirem/year.

A final rule that provides Commission approval and limits the radiological impact of such transfers to no more than 15 millirem/year, including consideration of "As Low As Reasonably Achievable" (ALARA), would provide improved protection of public health and the environment. Further elaboration of these and other points are provided in the detailed comments enclosed.

I hope these comments are helpful. If you have any questions, please contact Mr. James Gruhlke at (202) 564-9203.

Sincerely,

Frank Marcinowski, Director
Radiation Protection Division

Enclosure

ENCLOSURE
EPA's Detailed Comments

NRC'S Proposed Changes to 10 CFR Part 40
"Transfers of Certain Source Materials by Specific Licensees"
67 FR 55175-9, August 28, 2002

The NRC is proposing to amend its regulations to require NRC approval for transfers from licensees of low-concentrations of source material (less than 0.05% by weight of uranium or thorium) to persons exempt from licensing. The proposed changes to 10 CFR part 40 regarding the transfer of certain source material raise numerous issues that indicate the need for a more protective frame work before granting such requests:

1. The preamble discusses certain dose levels that would inform the approval process, while the regulation itself merely states that the licensee must obtain written approval after submitting a dose assessment [40.51(e)]. **There are no dose limitations in the regulation itself.** According to the preamble, it would appear that transfers for the purpose of direct disposal would be approved at dose levels that are extraordinarily high, particularly when such disposal may occur at EPA-permitted Resource Conservation and Recovery Act (RCRA) facilities not designed for such disposal. According to NRC's *Federal Register* notice (67 FR 55176), at dose levels of less than 25 millirem/year (mrem/yr), request for transfers "would normally be approved." Between 25 and 100 mrem/yr, NRC staff only has to inform the Commission of the request and its resolution status. Even doses higher than 100 mrem/yr are not "precluded." There are numerous problems with approvals at such dose levels.

    - Levels beyond 15 mrem/yr appear inappropriate when one considers that deep geologic repositories for highly radioactive wastes such as spent nuclear fuel, high-level waste, and transuranic wastes are held to an all pathways limit of 15 mrem/yr (40 CFR 191 and 40 CFR 197) with associated ground water protection standards.
    - Levels beyond 15 mrem/yr should be justified. What benefits are associated with approvals at dose levels exceeding 15 mrem/yr? There should be some identifiable benefit to society when higher dose levels are approved.
    - Levels beyond 15 mrem/yr exceed the 10^{-6} to 10^{-4} lifetime risk range that EPA uses to regulate a variety of pollutants, including radiation (e.g., 65 FR 76716, December 7, 2000). Disposal at EPA-regulated facilities should be consistent with EPA's risk management policies.
    - Approval at levels beyond 25 mrem/yr seem incongruous with the very concept of "unimportant" quantities. As noted below, NRC would allow doses from unimportant quantities that exceed those allowed from licensed radioactive waste disposal facilities (e.g., 25 mrem/yr from low-level radioactive waste sites under 10 CFR Part 61).
    - NRC notes that "[i]f transfers of material are sought for other purposes [than direct disposal] such as recycle or indirect disposal, such dose limits may not be

appropriate. Lower dose limits may need to be considered." (Page 55176) NRC should consider exposures from "other purposes" within the context of, and to be consistent with, its approach to "clearance".

- Levels beyond 100 mrem/yr violate national and international approaches to radiation protection that recommend limiting the total dose to individuals to no more than 100 mrem/yr **from all sources and practices.**
- The proposed rule sets up an internal NRC approval process that limits public knowledge or interaction. Based on the draft "Regulatory Analysis of Amendment to 10 CFR Part 40" (dated July 22, 2002), up to 6 licensees may apply for this transfer every year. Over a ten year period up to 60 requests would have been received and something like 50 would be approved. (See section 3.2.1.) This is a significant number of approvals, some of which may involve extremely high dose levels, and very little, if any, public involvement is required.

The Commission should consider limiting doses from the transfer for direct disposal to no more than 15 mrem/yr consistent with (1) regulated radioactive waste disposal facilities, (2) national and international radiation protection practices, and (3) a process incorporating very limited public interaction. Further, the Commission should consider limiting doses from transfers for other purposes to be consistent with NRC's approach to clearance. Specific dose limitations should be included in the regulation itself.

2. There is no mention of the concept of ALARA (As Low As Reasonably Achievable). NRC has routinely cited the application of ALARA as a necessary complement to the dose levels associated with its regulations. In the case of low-level waste disposal, 10 CFR 61.41 requires that releases from licensed low-level radioactive waste disposal facilities must meet specified numerical dose limits AND that such releases should be ALARA. In the case of transfer for the purpose of direct disposal, the proposed action would apparently allow doses from non-licensed, non-radioactive disposal facilities (such as EPA-permitted RCRA Subtitle C hazardous waste landfills) to exceed limiting dose levels for licensed radioactive waste sites, without any requirement that such doses be ALARA. The Commission should require that any request for the transfer or disposal of affected source material should demonstrate the application of ALARA in the applicant's dose estimates.

3. The discussion regarding "Finding of No Significant Environmental Impact: Availability" indicates that for "licensees who would continue to be allowed to transfer their low concentration of source materials to exempt persons" there are "no environmental impacts associated with this rule because the only change brought about by this rule is the requirement to apply for such approval. There would be no change to human health or the environment as a result." (67 FR 55177/2) The proposed system of approvals allows extraordinarily high dose levels, as discussed at 67 FR 55176/3 (i.e., 25 to >100 mrem/yr). Such approvals should be restricted to no higher than 15 mrem/yr as discussed above. That is, under a revised and more protective approval process, there should be a *reduction* in the impact on the human health and the environment, not a maintenance of the status quo.