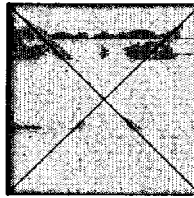


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NUCLEAR ENERGY INSTITUTE

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Dec. 7, 1999
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January 7, 2000

Chief, Rules Review and Directives Branch
U.S. Nuclear Regulatory Commission
Office of Administration
Mail Stop T-6D59
Washington, D.C. 20555-0001

SUBJECT: Industry Comments on "Supplemental Information on the Implementation of the Final Rule on Radiological Criteria for License Termination," FR Vol. 64, No. 234, 68395-68396

The following comments are provided by the Nuclear Energy Institute (NEI) on behalf of the nuclear energy industry in response to the subject notice. The industry appreciates the opportunity to provide input on the subject notice.

Our principle comment is that the soil screening values are lower than one would expect, based on the 25-mrem/year criteria. This is particularly true for the transuranic nuclides. These results are not unexpected, given the DandD code limitations previously documented. Simplistic modeling coupled with the selection of worst-case default parameters yields screening values that are overly conservative.

The industry appreciates that the NRC is working hard to develop decommissioning tools that are of value to a wide range of licensees. It is prudent to develop tools that are simple to use and conservative when implemented. However, the following types of conservatism, when compounded, yield values that are no longer realistic—which limits the usefulness of the tool.

- conservative scenarios (resident subsistence farmer)
- conservative assumptions (high % of diet and drinking water contaminated, food not washed)
- conservative, simplistic models (unrealistic aquatic pathway assumptions)

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- conservative selection of input parameter distribution and selection of the 90th percentile of the output dose distribution (nine out of ten times the dose would be less)

Recognizing that most contaminated soil will contain a distribution of isotopes, the "sum of fractions" will apply. Preliminary calculations indicate that typical isotopic distributions found at fuel cycle facilities and some reactors will dictate a "sum of fractions" screening value that is too low to be readily measured.

While it is understood that these facilities have the option to use more sophisticated tools, the public, the press, and politicians will understandably want to compare the licensee values with some independent source. They will turn to these screening values first. If these values are overly conservative, they will generate needless concern and undermine public confidence in the licensee's program.

NEI recommends that the degree of conservatism be reduced to allow the development of realistic screening values that can be used in the real world. When this is accomplished, an updated table of screening values will provide a useful tool for use by licensees and the public.

Once this is accomplished, the guidance accompanying the revised table should make it clear that compliance with these screening values means compliance with the 25 mrem/year license termination criteria and ALARA. Draft Regulatory Guide DG-4006, Section 3.1.5 indicates that in some cases the results of an ALARA analysis are already known on a generic basis. It references the Final GEIS (NUREG-1496) which discusses residual activity in soil at sites that will have unrestricted release. This evaluation determined that removal and disposal of contaminated soil below the 25 mrem/year unrestricted dose criterion is generally not cost-effective. This coupled with the conservative nature of the screening values should justify regulatory acceptance of compliance with the screening values as compliance with ALARA by definition.

In addition, the NRC should allow the use of these screening values for limited areas of subsurface soil contamination. Several of the common radionuclides presented in Table 3, which contribute to public dose primarily through the direct exposure pathway when present in surface soil, would have a lower dose consequence if found in soil at depths greater than 30 cm. This is especially true for a finite lens of contaminated soil covered with a depth of soil having lower levels or no level of contamination. In these cases, the screening values should be applicable.

In conclusion, NEI appreciates the opportunity to comment on this guidance document and would appreciate the opportunity to offer additional comments as we

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gain experience with the actual isotopic concentration and distribution in soil at decommissioned facilities. If you have questions concerning the enclosed comments, please contact me at (202) 739-8109 or Paul Genoa at (202) 739-8034.

Sincerely,



Lynnette Hendricks

PHG/