

NOV 15 1983

Mr. Joseph A. Cannon  
Acting Assistant Administrator for Air,  
Noise and Radiation  
U.S. Environmental Protection Agency  
Washington, D.C. 20460

Dear Mr. Cannon:

On August 4, 1983, Mr. Charles L. Elkins, Deputy Assistant Secretary for Environment, Safety and Health, requested comments on the draft Summary Report entitled "Dose Limits to Persons in the General Population Exposed to Transuranium Elements". This subject has been under consideration for development of Federal guidelines beginning with the Federal Radiation Council in the late 1960's.

As indicated in Mr. Elkin's letter, the draft Summary Report developed by the Environmental Protection Agency (EPA) has recently been revised substantially. Also, within the past year, an extensive report on Enewetak Atoll cleanup experience has been published by this Department. The experience with Enewetak cleanup planning, and efforts to obtain funding and approval for this project from the Office of Manpower and Budget and from Congress indicate that a Federal Standard, specifying a single cleanup guideline expressed as dose in millirad per year to bone and lung, may not be useful and could be counterproductive. Site specific cleanup options must be evaluated to determine what level of cleanup is feasible and achievable for a specific accident situation.

Understandably, certain immediate actions are necessary following an accident where transuranium elements are released into the environment. However, for long term cleanup, we expect that the decision on a level or degree of cleanup of contaminated soil will be made at the highest levels of Government. This decision will be based upon many technical and political factors, will involve consideration of current radiation protection standards for the general population, and may well involve special consideration by the Congress. Our current objection to the 1 mrad/year to lung and 3 mrad/year to bone criteria recommended by EPA is that such organ dose levels are very low if applied conservatively and could result in unnecessarily high cleanup costs with little attendant benefits. As stated earlier, we cannot support any standard or criterion that does not provide the necessary guidance for the consideration of cleanup alternatives that will provide the flexibility needed by the Department in resolving any disputes among interested parties as to cleanup levels.

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Of direct bearing on the acceptability of any cleanup numerical criterion is the need to agree on the methodology to be used in assessing compliance with the cleanup guidelines. Cleanup levels and methodology are inseparable considerations in developing numerical values for cleanup. In the case of long lived transuranium elements, to assure compliance with 1 mrad/yr to the lung utilizing the ICRP 26 dose limitation system retrospectively (if this is the intent), the cleanup level must be established such that the doses in the first year would not exceed 0.0143 mrad/yr. As you are aware, the retrospective application of committed dose involves extrapolating dose over 70 years and assigning the entire dose to the first year. Neither technology nor cost benefit in our view would allow the retrospective application of guidelines as low as those in the EPA draft report. The fundamental question requiring further consideration is whether the methodology to be used is the annual dose commitment or the 70-year dose commitment.

The Department of Energy (DOE) will fully discharge its responsibilities for the health and safety of the general public. In order to resolve differences over the proposed guidelines, we plan to convene a technical committee to respond to your recommended guidelines. Topics to be discussed include:

1. Investigate the advantages and disadvantages of establishing a screening level.
2. Evaluate alternative methodologies for assessing compliance with numerical dose criteria for lung and bone.
3. Analyze past radiological cleanup operations to include criteria, actual costs, and extrapolated costs assuming that the EPA recommended guideline had been imposed. Investigations of Palomares, Thule, and Enewetak are anticipated.

DOE welcomes the establishment of generic cleanup guidelines, but all exigencies must be evaluated to make certain that applicable guidelines are adopted that will be useful tools instead of an inflexible and possibly unattainable standard.

As plans for these evaluations develop, we will keep the EPA staff informed. We hope these studies can be completed within 6 months.

Sincerely,



Robert W. Davies  
Deputy Assistant Secretary for  
Environment, Safety and Health

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