

STANFORD UNIVERSITY⁹⁴ MAR 11 10:47

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March 2, 1994

Donald A. Cool, Chief
Radiation and Health Effects Branch
Division of Regulatory Applications
Office of Nuclear Regulatory Research
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Dr. Cool:

Thank you for the opportunity to comment on the DRAFT Radiological Criteria for Decommissioning. Overall this document describes very sensible criteria for decommissioning of soils and structures. It is an excellent proposal that addresses the legitimate concerns of the many and varied groups that participated in the workshops. The proposal seems to be a well-balanced approach to establishing much needed criteria that should satisfy reasonable people. I really like the proposal to set a dose limit and a dose goal and to apply the ALARA principle to reduce the dose below the limit. It is absolutely the right way to approach this problem. My major concern is that this process could be very costly if large numbers of soil samples must be analyzed to verify compliance. I have a few comments that address some specific issues.

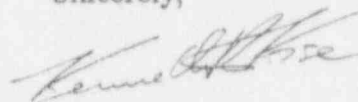
1. I understand from the discussion on page 20 why 3 mrem/y was chosen as the goal for dose from residual radioactivity. However, the same statements could be made, within the uncertainties of our knowledge, about a dose of 5 mrem/y. Neither annual dose would be easy to demonstrate, but at these levels increments of 5 mrem/y seem more believable than increments of 3 mrem/y.
2. The statement in the first sentence at the top of page 19 is very good. I would add that, in addition, the exposed population is generally not known. Therefore, the estimation of collective dose has no meaning.
3. The proposal to set a dose limit and then apply the ALARA principle to attempt to reach the dose goal is exactly the approach that should be taken. This process is excellent and defensible.
4. The last paragraph on page 29 is a good discussion of some of the considerations needed when implementing the ALARA principle. For your information, the NCRP is currently reviewing a report on the application of the ALARA principle. Would a recommendation of the NCRP be useful to you in this process?

March 2, 1994

5. I agree completely with the approach that you have taken concerning limits on individual pathways as expressed on page 33. Total exposure is the important issue.
6. Section 13 on page 34 may need some clarification. Presumably an initial analysis should be made to determine the disposal requirements to reach 15 mrem/y. Once that level is achieved, the ALARA principle would be applied. An analysis of the risks and costs involved with moving and disposing of additional material to reduce the dose further is part of that process.
7. Your stated positions in Sections 14 and 15 to deal with minimization of waste and radon are the appropriate ways to handle these issues.
8. In Section 16 on page 37, The conclusion concerning environmental protection is exactly right. The concerns expressed in the following paragraph would be addressed as part of the application of the ALARA principle.
9. In the definition of the *Critical Group* on page 42, paragraph 1, with licensed facilities, not only are the activities prescribed and controlled, but the potentially exposed population can be identified.
10. I especially like the position stated on page 50 that, further reductions in dose would not "be necessary to meet social or cultural issues if the limit for unrestricted use is achieved and ALARA has been applied".
11. On page 59, a better Section title would be "Risk Considerations for Applying ALARA". ALARA should not be used as an adjective. It is an acronym for a principle. The statement in paragraph 2 that specifies the extent of the considerations to be included in the analysis is very good.
12. In the discussion of restricted use on page 63, I think that it should be made clear that there is no expectation that control on restrictions could be guaranteed for more than a few hundred years. The actual control could last for an even shorter time if political instabilities arise; witness Eastern Europe and the Balkans.

Thanks again for the opportunity to participate in this process.


Sincerely,



Kenneth R. Kase
Head, Radiation Physics

March 9, 1994

Note to: Emile Julian
Chief, Docketing and Services Branch

From: Jim Malaro 
RES, DRA, RPHEB

Subject: Docketing of comments on staff draft rule

Enclosed for docketing are two comments related to the Staff Draft Rule on Radiological Criteria for Decommissioning. Please send me copies of the docketed comments for my records.

Thanks.