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March 14, 1994

DOCKET NUMBER  
PROPOSED RULE PR 20  
(59FR4868)

Secretary  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attention: Docketing and Service Branch

SUBJECT: 10 CFR PART 20 RADIOLOGICAL CRITERIA FOR DECOMMISSIONING OF  
NRC-LICENSED FACILITIES

This letter transmits the comments of the Illinois Department of Nuclear Safety (IDNS) on the subject proposed Federal Register notice dated January 26, 1994. As participants in the Enhanced Participatory Rulemaking process, IDNS staff members have been examining and providing input on this issue since 1992.

IDNS is pleased to see that USNRC has chosen to pursue the approach commonly known as "risk limits plus ALARA." We are also pleased to note that these limits take the form of total effective dose equivalent (TEDE). We believe that this approach avoids redundant discussion of dose to risk conversion factors and allows NRC to proceed with the development of tools to link doses to secondary quantities such as residual radioactivity.

Unfortunately, NRC appears to have chosen a decommissioning TEDE limit and ALARA goal without adequate technical support. Initially, IDNS believed that NRC's 100 mrem per year dose limit for individual members of the public (10 CFR 20.1301) should be used as the limit for decommissioning. However, upon consideration of the argument presented in the subject proposal, IDNS agrees that in order to avoid a summation of exposures exceeding 100 mrem, a reasonable fraction of 100 mrem should be adopted as the limit. IDNS believes this reasonable fraction should be 25 mrem, not 15 mrem as proposed by NRC. We believe that there is sufficient precedent from operating facilities for use of a 25 mrem TEDE as a limit for doses, with USEPA concurrence. There should be no reason to change this reasoning for adopting a limit to be applied under decommissioning scenarios.

IDNS also believes the 3 mrem per year decommissioning goal to be arbitrarily stringent and lacking adequate technical basis. Furthermore, IDNS considers the setting of numerical ALARA goals in a promulgated rule to be inconsistent with previous guidance and to be a poor precedent. We believe ALARA goals should be set on a case-by-case basis by the regulatory agency, and based on information presented by the licensee.

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Secretary  
U.S. Nuclear Regulatory Commission  
Page 2  
March 14, 1994

IDNS had previously expressed its desire that the rule should clearly indicate its applicability to decommissioning of sites containing 11.e(2) by-product material. However, this is still unclear in the current draft. Section 10.1401 addresses the intended scope of the rule and states that for uranium mills (and presumably thorium mills) the criteria apply to the decommissioning of the facility but not to the disposal of the tailings. Tailings disposal is assumed to be covered by Part 40. Yet the discussion of ALARA considerations describes the difficulty of meeting the proposed criteria for unrestricted or restricted release for certain sites contaminated with uranium and thorium. In fact, the proposal offers an alternative approach for these sites. It is important that NRC explicitly clarify this issue in the next version of the proposed rule.

We see no good reason for NRC to single out thorium sites as those most likely to be candidates for decommissioning to restricted use criteria. We consider it unwise to predispose any sites to this approach at this time.

IDNS agrees with the general approach proposed relative to radon. Radon exposures can present a significant health problem under conditions where high natural emanation rates exist. However, it is appropriate for NRC to require licensees only to reduce the residual concentrations of radon precursors, rather than attempting to set a decommissioning standard for radon.

NRC has appropriately made provisions for sites which cannot be released for unrestricted use. However, we had anticipated that a relatively small fraction of applications would result in such a disposition. The proposed rule unexpectedly presents very stringent decommissioning standards. If NRC insists on a limit and goal of 15 mrem and 3 mrem respectively, it should be prepared to consider and process relatively large numbers of applications for restricted use status. Assuming that will be the case, NRC needs to examine and develop the restricted use scenario in much greater detail than has been described. For example, Section 20.1402 raises many questions about the application of restricted use requirements. Does the independent third party described in 20.1402(3) become a licensee? If not, what is that third party's relationship with NRC or an agreement state? This section will most likely require that NRC develop and publish extensive guidance.

A portion of the proposed rule that could easily be misinterpreted is the discussion related to readily removable residual radioactivity. As written, that section could be read to suggest that it would not be necessary to remove and transport large quantities of soil to reach the decommissioning limit. However, our interpretation is that the need to remove and transport large quantities of soil to reach goals below the decommissioning limit will be addressed by the site-specific ALARA analysis. We presume this was NRC's intent and request that the language in the next version clarify this point.

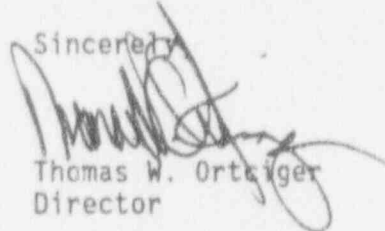
Secretary  
U.S. Nuclear Regulatory Commission  
Page 3  
March 14, 1994

IDNS would like to emphasize its position on the proposed decommissioning limit and goals. In our view, the approach used by NRC in arriving at these values is based more on acceptability to other regulatory agencies than on its technical merits. We refer to the statement in the Basis for Radiological Criteria that the Commission has selected a value which is a relatively small fraction of the [100 mrem] limit consistent with other decisions of both the USEPA and NRC. We agree that concurrence by USEPA is critical; however, it is premature for NRC to assume that USEPA's concurrence on this rulemaking will be contingent on a 15 mrem TEDE limit.

IDNS has been a strong supporter of the participatory rulemaking process. It would be an unfortunate departure from open nature of this process if NRC and USEPA jointly agreed on a dose limit without an appropriate technical dialogue with the states and other interested parties. If NRC has not yet negotiated this agreement with USEPA, we suggest that the prime criterion of acceptability to other federal agencies be dropped in favor of an approach underlain by a strong technical basis.

We appreciate the opportunity to comment on this proposed rule and look forward to our continuing participation in this process. If you have any questions about these comments, please contact Mr. Richard Allen (217-782-1322) or Mr. Wayne Kerr (217-785-9918) of my staff.

Sincerely,



Thomas W. Ortseiger  
Director

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