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PROPOSED RULE PART 20
(59FR 4868)

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STATE OF WASHINGTON

DEPARTMENT OF HEALTH

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March 11, 1994

Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555
ATTN: Docketing and Service Branch

Dear Mr. Secretary:

The Washington State Department of Health (DOH) has reviewed the staff-draft "Revision of 10 CFR part 20 --- Radiological Criteria for Decommissioning" and the associated explanatory text and has the following comments and concerns.

We share the draft's concern with establishing radiation cleanup risk levels that are consistent with other environmental regulations. Consistency of the risk levels of the proposed rule with the risk levels associated with EPA's CERCLA and spent nuclear fuel regulations, for example, will help ensure nationwide regulatory consistency and fairness.

Another strong point of the new rule is the establishment a site-specific advisory board for those sites that will not be released to the public, but instead will require institutional controls. It is important that the NRC take steps to ensure that local communities have some influence over the remedial and control actions.

The flexibility of the new rule is another major asset. It is clear that some sites in the United States will never be free-released. The DOH is glad to see that the proposed new rule reflects that fact. Another example of this flexibility is to allow site-specific modeling and remedial actions. Were these proposed regulations to not allow such flexibility, it is clear that the final risks and costs of individual sites could vary widely.

While the draft rule has many positive attributes, the DOH also some reservations about the proposed new rule. The definition of natural background, for example, includes radon. This is a "natural" definition since radon dominates annual doses. The difficulty lies in the proposed regulation's incremental dose standard, which is to be used to set cleanup radionuclide concentrations by models that include a residential scenario. It is clear that radon, in a residential scenario, will dominate

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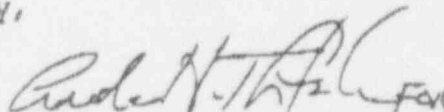
total dose and therefore must be included in the model. Since the draft admits that modeling potential doses due to radon has very large uncertainty, it follows that only very low levels of radon progenitors will, with high certainty, fall below the 3 mrem plus background rule. Thus the owner of a site to be remediated would presumably be forced to set cleanup levels of uranium, thorium and their daughters at extremely low levels.

Another difficulty with inclusion of radon into background involves the 3 mrem TEDE standard in the rule. Part of the rationale for 3 mrem is that it is "...barely distinguishable from variations in local and national radiation background levels...". If radon is included in background in a residential scenario, this claim is not true. In the state of Washington, for example, individuals living in adjacent homes often differ in their annual dose from radon by a few hundred mrem. Washington State is not unique in this respect. If one were to use the "barely distinguishable from local variations" rationale to set the cleanup standard, then the cleanup standard would be well above 3 mrem.

A solution to these difficulties is to eliminate radon from the definition of background and from dose modeling; however, this makes little sense since radon is the principle contributor to dose. Another possible solution is to place building code restrictions on sites where radon-generating radionuclides are present. Regardless of the solution chosen, the DOH believes that including radon in background and residential dose assessments and adhering to the 3 mrem rule is untenable.

Another source of concern to the DOH is the two cleanup levels of 3 and 15 mrem. We believe that two cleanup levels will lead to frequent and costly litigation between environmental groups and industry over where in the 3 to 15 mrem range to clean up to. Further, the draft states that "...remediation costs rise rapidly.." in this dose region. Thus the costs of remediating two identical sites, because of small differences in the negotiated dose limit, could be vastly different. In our view it would make more sense to set one cleanup level below which the site can be released to the public as has been done, for example, for uranium mill sites.

Sincerely,



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cc: Terry Strong, Director: Division of Radiation Protection
JLE:DPW:KP

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