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Comments on "Draft Radiological Criteria for Radiological Decommissioning"

We have reviewed the 'Draft Radiological Criteria for Radiological Decommissioning" and the summary of comments. It is our belief that there are elements in this proposed regulation that are seriously flawed both with respect to their technical justification and to the philosophy that they imply. The consequences of this proposed regulation, if enacted, could seriously impact economics on a national scale and could result in an extreme waste of taxpayers' money. We offer our constructive comments in the hope that this proposed regulation will be modified.

To establish a "goal" to reduce residual radioactivity to levels that are "indistinguishable from background" as a regulatory requirement is tantamount to saying that there is no acceptable level of risk to the public if it is due to radioactivity caused by the operations of a licensed facility. It is clear from other statements in this proposed regulation that this is not the intent, but this stated goal is given more emphasis than any other stated "radiological criteria". This goal, in fact, is not a radiological criterion of any kind and is a goal that cannot be met at any cost. It is more than just a poor choice of language. The public is exposed to risks from every societal activity including those of every industry in operation. It is a fact that tremendous sums of money are being spent today to reduce trivial risks while other significant risks are ignored because of the public's perception of these risks. We are spending more money to reduce public fear than we are to reduce public risk. The goals stated in this draft show that the NRC is willing to further this practice by requiring sites to be sanitized to a level of risk that is not measurable. It is not in the public's best interest to require this extreme level of decommissioning because it is always at the expense of other more important risk reduction activities that could have been conducted. It is in the best interest of the public for the NRC to establish reasonable criteria for decommissioning that will allow sites to be cleaned up today at a reasonable cost while allowing for a small calculated risk from the unrestricted use of a site.

The technical justification stated by the NRC for the 3 mrem/y dose limit is that this dose level can be considered to be indistinguishable from background levels and variations in background. As stated above, this is not a technical criterion and is not a sound basis for a dose limit. Geographical and temporal variations in background greatly exceed the dose limit chosen. The 15 mrem/y limit is based on the fact that this dose is considerably below the 100 mrem/y limit established for the public from other licensed activities. This hardly constitutes a technical basis for a dose limit. There are many health physicists who, like us, feel that the 100 mrem/y dose limit in 10CFR20 is too low and is founded, not on a technical basis, but in response to a perceived need to lower the previous 500 mrem/y limit. Although a number of health effects have been claimed due to inappropriate use of risk estimates, there

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is no scientific research that has proven health effects at dose levels of 500 mrem/y. It is our opinion that dose limits should be chosen on a real technical basis such as an ALARA analysis of specific sites that have been decommissioned. The proposed radiological criteria includes an ALARA requirement only after the 15 mrem/y limit has been satisfied and only if the regulatory "goal" cannot be met. In fact, the 15 mrem/y dose limit itself can result in a decommissioning that is not ALARA. It should be obvious that it might be better to leave the radioactivity in the ground where it causes little or no dose than to dig it up, process it, and bury or store it where it can cause considerably more dose and cost. ALARA should come first as the technical basis for the dose limit set by the NRC.

We object to certain statements in this draft suggesting that licensees are "motivated to forestall decommissioning actions pending development of more favorable criteria or less expensive decommissioning technologies...". It has been our experience that most licensees are very willing to meet their regulatory obligations as long as there are specific criteria established and well defined goals to achieve. The General Accounting Office is correct in laying criticism on the NRC, not on the licensees, for the lack of progress in decommissioning due to the absence of radiological criteria. These types of statements and the general inflammatory tone of this draft do not belong in this document.

We agree that the most practical radiological criterion for decommissioning is a dose limit. We agree strongly with the immediate need for residual radioactivity concentration limits for soil and other media. We agree that these limits should be established on a generic basis by the NRC independent of any site characteristics with allowance for site specific modeling using NRC approved methodologies. We recommend that these concentrations be based on a more reasonable dose limit than that stated in the draft. We agree that all risks should be considered in an ALARA analysis involving decommissioning. We also propose that this be the technical basis for any dose limits related to decommissioning. We commend the NRC on the conduct of workshops and the open policy they have used to establish this regulation. Thank you for considering our comments.

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