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Mr. Robert A. Nelson
 US Nuclear Regulatory Commission
 NMSS/Mail Stop: 7F27
 11555 Rockville Pike
 Rockville, MD 20582-2738

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 ADJ

Subject: Enhanced Participatory Rulemaking for the Clearance of Materials and Equipment with Low Residual Radioactivity

Dear Mr. Nelson:

I am a Mother and a health physicist. Those two roles help me understand both the need to keep radioactivity out of the mouths of our children and the practical need to be able to release workers, equipment, and materials from facilities handling radioactive materials (hospitals, laboratories, industries, and nuclear power plants).

There is a need for rulemaking that would allow the release of solid materials as well as an update of the limits for surface contamination. The rulemaking should primarily set risk-based criteria for release of materials from facilities containing radioactive materials. The levels chosen should pose a risk similar to the increase of radiation exposure associated with a Leap Year, or 1/365 annual average background exposure. We are accustomed to receiving this level of additional exposure. It really IS a trivial amount.

An extra day's radiation exposure is similar to the guidance and methodology of the ANSI/HPS technical standard N13.12 regarding the release of solid materials that are potentially contaminated. This standard has been adopted following the consensus process used to develop and adopt technical standards throughout our society. Formally adopting the standard through rulemaking allows important public perspective and refinement of the technical concepts embodied by the standard.

As a health physicist, I have grown up with the linear, no threshold, hypothesis, i.e., assuming, in the absence of evidence to the contrary, that there is no dose of radiation that does not cause some damage. This is true at the cellular level, but it is not been demonstrated in complex organisms (such as man or other multi-cellular organisms) at or below occupational dose levels. Recent research implies that there may be damage with occupational levels of exposure, but it is not expressed during the normal life span of humans. The doses and, therefore, risks recommended in N13.12 are significantly LESS than occupational standards. Any damage, if it occurs at all, would not be measurable.

The costs of NOT implementing release criteria ARE definitely measurable. Just this week I was not able to transfer what should be non-radioactive soil standards from one DOE contractor to another. These standards were used in a Contamination Area. Because they were used in a posted area, they are considered radioactive until proven otherwise. Proving them non-radioactive is far more costly than disposing of them as radioactive waste. Thus, soil standards with a potential value of \$10,000 will be

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disposed of because it costs even more to demonstrate that there is NO radioactivity associated with them.

We have evolved in a sea of radiation exposure some locations have more, some less. An extra day's worth of radiation exposure would not hurt our children or our children's children. NOT having the option to release what could be small amounts of radioactivity will, however, waste our resources and efforts. There are far more serious and immediate threats to our health, safety, and environment than radiation exposure. Please provide the regulatory framework that will both save our children and our limited resources.

Sincerely,

Nancy P. Kirner, CHP
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