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November 29, 1999

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

NOV 30 1999

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

Dear Mr. Nelson:

I have spent my professional career as a health physicist working at one time or another for the Atomic Energy Commission, the University of Washington, Northwest Energy, and with Battelle Pacific Northwest National Laboratory. My comments are strictly my own professional opinion. Much of my career has been spent in the measurement of radiation and in the evaluation of dose to people. I am currently a member, and past chair, of the dosimetry subcommittee of the International Agency for Research on Cancer Collaborative Epidemiologic Study of approximately 500,000 nuclear workers from 17 countries throughout the world. I am also the current chair of the Health Physics Society Standards Committee.

Hopefully the Nuclear Regulatory Commission will proactively endorse the guidance and methodology of the risk based analysis recommended in the ANSI/HPS technical standard N13.12 regarding the release of solid materials that are potentially contaminated. This standard has been adopted using the consensus process used to develop and adopt technical standards throughout our society. ANSI/HPS N13.12 has been balloted for use by the respective government agencies in their organizational role on the N13 ANSI Accredited Standards Committee.

From a pragmatic perspective, the dose guideline of 10  $\mu$ Sv/year contained in the ANSI/HPS N13.12 standard truly represents a trivial dose. This level of dose could not be easily distinguished from year to year variations in measurements of the penetrating natural background radiation at sea level of approximately 750  $\mu$ Sv/year. Penetrating natural background radiation in this country can be as much as 1500  $\mu$ Sv/year at higher elevations and locations with relatively greater natural uranium and thorium soil content. No deleterious effects on human health have been documented by the National Academy of Sciences in their studies of the health impact from variations in natural background (i.e., as much as 750  $\mu$ Sv/year) compared with the ANSI/HPS N13.12 dose guideline of 10  $\mu$ Sv/year. The U.S. must compete in the world economy that generally has endorsed the recommendations contained in ANSI/HPS N13.12.

Sincerely,

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