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January 14, 2003

Dr. George E. Powers
Project Manager
Nuclear Regulatory Commission
Washington DC
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Subject. SCRS Comments on Draft NUREG 1761

Dear Dr. Powers,

Attached please find for your consideration, the SCRS comments on the draft NUREG 1761. The Special Committee on Site Cleanup and Restoration Standards has been involved with the issues of clearance of solid materials and release of sites for several years

If there are any questions, please call me at 312-269-2283.

Sincerely,

Jas Devgun, Ph.D
Chairman
Special Committee on Site Cleanup and Restoration Standards

c Hal Peterson, DOE
Cheryl Trotter, NRC
Suriya Ahmad, ANS

Template = ADM-013

E-RFDS = ADM-03
Call = G. Powers
(GEP)

**Comments from ANS Special Committee on Site Cleanup & Restoration Standards
on Draft NUREG-1761**

“Radiological Surveys for Controlling Release of Solid Materials”

January 10, 2003

- While this report adds to the technical database, it is questionable that it will become a useful tool in near future. This NUREG report was initiated as a part of the continuation of the development of the technical database during NRC 's efforts in rulemaking for the clearance of solid materials. However, after opposition to any recycling from metal and concrete industry (as well as criticism from “environmental” groups), NRC turned to NAS for a study in August 2000. The NAS report became available in March 2002 and NRC has only recently (end of October 2002) decided to restart the rulemaking process. Thus, this report is like putting a cart before the horse. The release of the report should wait until the rulemaking decides on the approach and once the release criteria are set.
- The report mirrors the MARSSIM (NUREG-1575) methodology, which is applicable to soils and bulk materials but its use is questionable for other solid materials, such as objects (what DOE calls “non-real property”).
- The concept of DCGL mirrors that of MARSSIM applied to a site under the License Termination Rule but there we have a 25 mrem/y dose criteria from which we can derive DCGLs through site-specific pathways analysis. Here, for the clearance of materials, NRC has not defined a dose limit. Draft NUREG -1640 that NRC published in 1999, does not state any dose limit; it rather gives dose factors in terms of $\mu\text{Sv/y}$ per Bq/g and $\mu\text{Sv/y}$ per Bq/ cm^2 .
- The usefulness of the proposed classification of materials (Section 4.0) is questionable. This classification (impacted and non-impacted and then, three classes for impacted) again is similar to the Class 1, 2, 3 areas in MARSSIM. For clearance of solid materials, especially for bulk materials from decommissioning, the system has to be simple to be of use. Basically, if the material is non-impacted and non-contaminated it can be released. If impacted, it should go through the clearance process and be subject to the clearance criteria (which NRC has yet to define). It should be noted that the ANSI N13.12 provides surficial and volumetric criteria, which the NRC should consider for adoption. The 1 mrem/y dose criteria for clearance is a consensus criterion accepted by CRCPD as well as the international organizations such as IAEA and EC.
- The whole idea of the necessity of clearance of solid materials stems from the fact that it is extremely expensive to dispose of such bulk materials as radioactive waste. Thus, if the survey detail and effort is the same as MARSSIM, the costs of the survey (combined with the regulatory uncertainty) could essentially force much of the industry to treat such materials as radioactive waste. Otherwise, one could spend the money on a complete MARSSIM survey of the site, including bulk materials, and

release them under the 25 mrem/y criteria. Then, why bother with 1 mrem/y (de facto criteria) and going through the same detail.

- The issues of recycling could be separated from disposal as disposal is inherently different from recycle and is also more acceptable to most stakeholders.