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**DEPARTMENT OF THE ARMY**  
HEADQUARTERS, U.S. ARMY INDUSTRIAL OPERATIONS COMMAND  
ROCK ISLAND, ILLINOIS 61299-6000  
December 22, 1999

OFFICE  
ADMINISTRATIVE

REPLY TO  
ATTENTION OF

Safety/Radioactive Waste Team

Secretary  
U.S. Nuclear Regulatory Commission  
Washington, District of Columbia 20555  
Attention: Rulemaking and Adjudication Staff

We welcome the opportunity to comment on the Nuclear Regulatory Commission's (NRC) review of the release of solid materials. We also endorse the workshop process to give every interested party a forum to learn about the proposal and give feedback.

The U.S. Army Industrial Operations Command's Safety/Radwaste Team manages the Army's low-level radioactive waste (LLRW) disposal and is the Executive Agency for the other military services excluding the nuclear Navy. We have generators of LLRW located in each state and many foreign countries.

Our comments are attached. In general, we agree with the need to establish standards for release of solids as was done for liquids and air. The current case-by-case process is slow and costly and normally would not produce a standard much different from those discussed by NRC. We strongly recommend establishment of standards based on dose, establishment of different standards for recycle and disposal, making recycle standards compatible with international recycle standards, and getting buy-in of the standards from other federal and state regulators.

Again, we thank you for the opportunity to comment prior to the proposed rulemaking on this matter. This is an important issue in need of resolution and we appreciate your hard work to make it happen.

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Sincerely,

//Signed//

Glenn S. Leach for  
Rosalene E. Graham  
Chief, Safety/Rad Waste Team

COMMENTS TO  
NUCLEAR REGULATORY COMMISSION  
10 CFR Part 20

Release of Solid Materials at Licensed Facilities:  
Issues Paper, Scoping Process for Environmental Issues,  
and Notice of Public Meetings

1. Need for Requirement. The NRC has release limits for liquids and air but none for solids. It currently establishes a limit on a case-by-case basis. This process may take weeks to months and can delay clean up actions resulting in scheduling problems and associated increased costs. So, a standard is always developed and is usually near the numbers discussed in the workshops. The proposal would simply establish a universal standard to simplify the current slow, confusing method of establishing a standard for each project.

2. Basis for Standard. We recommend the NRC proceed to rulemaking on a dose-based standard for the unrestricted release of solid materials (soils, metals, concrete, equipment, etc.) from licensed facilities. Other release standards are dose based and this should be no different. It should have limits that protect health and safety while also being practical, measurable and consistent. The NRC should generate guidance documents on implementation to accompany the rule that are sufficiently detailed to allow the licensee to demonstrate compliance.

For example, a generator may measure a single item weighing a few pounds versus a scrap metal dealer monitoring a truck with several tons of various materials. It should consider how the different possessors of the materials will demonstrate compliance with the standard. It should consider the non-radiological risks to personnel from the movement of material that may otherwise be left in place and show a benefit to society from that movement. Most risk assessments show the greatest hazard to health and safety from removal actions is the transport of the materials.

3. Number of Standards. The inherent difference between reuse of metals and disposal of materials in landfills requires at least 2 standards.

4. Harmonization of Standard. The standard for metals should be the same as the international standard due to import/export. The NRC should seek buy-in from other federal and state regulators for use with licensed and possibly other radioactive materials, i.e. naturally occurring and accelerator produced radioactive materials and exempt materials. A NRC standard should be used as a tool by other agencies for their release criteria and does not accomplish much if the other regulators choose to apply different standards; i.e., the case-by-case establishment would still exist for many materials.

5. Other Applications. A benefit of a promulgated rule is that it can be used as a relevant and appropriate requirement under the Comprehensive Environmental Restoration, Compensation and Liabilities Act (CERCLA) for developing release criteria for solid material at sites with radiological contamination that is not subject to NRC licensure.

6. NUREG-1640, Vol. 1., "Radiological Assessment for Clearance of Equipment and

Materials from Nuclear Facilities." The hard copy and Internet versions both contain problems with properly displaying equations. An example is equation 3.7. The Greek character representing the air concentration is a rectangle in the equation vice the character. We found this mistake in the printed copy of the NUREG distributed at the Chicago workshop on 7 December 1999. We also found it in the Adobe Acrobat format of the file as downloaded from <http://www.nrc.gov/NRC/NUREGS/SR1640/V1&2/index.html> on 13 December 1999. A possible reason for this is that you may not have embedded the appropriate fonts in the Adobe acrobat file to allow all users to view and print the file correctly.