



HEALTH PHYSICS SOCIETY

Specialists in Radiation Safety

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U.S. Nuclear Regulatory Commission
Docket ID No. NRC-2011-0162-0017

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President Elect
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Subject: Consideration of Rulemaking To Address Prompt Remediation of Residual Radioactivity During Operations

The Health Physics Society¹ (HPS) is a professional organization whose mission is to promote excellence in the science and practice of radiation safety. The HPS appreciates the opportunity to provide comments in response to the potential rulemaking to address prompt remediation of residual radioactivity during operations.

The HPS is responding with comments in the attached document. Rather than answer questions posed in the Federal Register notice, the society is responding to the concept of a specific rule. The HPS appreciates this opportunity to provide comments on this matter. If you have any questions regarding these comments, please feel free to contact the HPS Agency Liaison, Craig Little, at 970-260-2810 or by email at agencyliaison@hps.org.

Sincerely,

Eric W. Abelquist, PhD, CHP

c: Robert Cherry, Jr, CHP, HPS President
Nancy Kirner, CHP, HPS Past President
Craig Little, PhD, HPS Agency Liaison
Brett Burk, HPS Executive Director

¹ The Health Physics Society is a non-profit scientific professional organization whose mission is to promote the practice of radiation safety. Since its formation in 1956, the Society has grown to include over 4,000 scientists, physicians, engineers, lawyers, and other professionals representing academia, industry, government, national laboratories, the department of defense, and other organizations. Society activities include encouraging research in radiation science, developing standards, and disseminating radiation safety information. Society members are involved in understanding, evaluating, and controlling the potential risks from radiation relative to the benefits. Official position statements are prepared and adopted in accordance with standard policies and procedures of the Society.

Comments:

1. It is certainly best practice to remediate all spills as soon as possible during operations. The components of speedy remediation include but are not limited to magnitude, media, license conditions, funding mechanisms, potential dose to workers or members of the public, and operational impacts. The details and intricacies of these components vary considerably not only within an industry sector, but also between members of each sector. Trying to apply a single rule to this wide range of variables would seem to be problematic.
2. Further, current D&D practices assume that operations over many years have resulted in many instances where spills were not completely (or at all) cleaned up. Further, assuming a prompt remediation rule does get adopted, future D&D regulators will not assume that since a rule was in place, all previous spills were cleaned up during operations. That's not reality. A new rule will simply increase cost without any certainty of decreasing decommissioning costs.

Therefore, in keeping with Comment #1, licensees should clean-up and document same as the operational situation warrants, being cognizant of eventual D&D.

3. A better approach to prompt remediation is that cleaning up a spill should be governed by one or more license conditions. This site- and facility-specific approach would be clearer to describe and easier to conduct than an overarching requirement.
4. The Health Physics Society (HPS) has a position statement, "Compatibility in Radiation Safety Regulations," which recommends that radiation standards be consistent with recommendations of the International Commission on Radiological Protection (ICRP), the National Council of Radiation Protection and Measurements, and scientific consensus standards [1]. While the position expressly does not apply to "accidental releases of radioactive material," those basic radiation safety concepts that may guide actions in those circumstances are the same as those common to everyday radiation safety practices such as ALARA (As Low as Reasonably Achievable).

ALARA conveys the principle that:

"In relation to any particular source within a practice, the magnitude of individual doses, the number of people exposed, and the likelihood of incurring [radiation] exposures where these are not certain to be received should all be kept as low as reasonably achievable, economic and social factors being taken into account" [2].

Judicious application of ALARA to remediation of spills, especially within the confines of license conditions, would seem to achieve the same purpose as a potential rule. Therefore,

we do not believe that a rule governing prompt remediation is desirable.

REFERENCES

- [1] HPS (2007). Compatibility in Radiation Safety Regulations: position statement of the Health Physics Society. Retrieved 22 July 2016 from: http://hps.org/documents/compatibility_ps004-1.pdf.
- [2] ICRP (1991). 1990 Recommendations of the International Commission on Radiological Protection, ICRP Publication 60, Annals of the ICRP 21 (Elsevier Science, New York).