



STATE OF WASHINGTON
DEPARTMENT OF HEALTH

OFFICE OF RADIATION PROTECTION

111 Israel Road SE • PO Box 47827 • Olympia, Washington 98504-7827

TDD Relay Services: 1-800-833-6388

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October 17, 2007

Edward O'Donnell
Two White Flint North
MS 9 C34
U.S. Nuclear Regulatory Commission
Washington DC 20555-0001

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RULES AND DIRECTIVES
BRANCH
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Dear Mr. O'Donnell:

This is in response to the request for comments on Draft Regulatory Guide DG-4012 "Minimization of Contamination and Radioactive Waste Generation – Life Cycle Planning" which provides guidance on implementing 10 CFR 20.1406 "Minimization of Contamination". We offer the following comments for your consideration:

Section B, "Explore Opportunities for Minimizing Contamination Prior to Application Submittal": Some discussion concerning 'significant contamination' or 'adequate leak detection' should be included. It was assumed that 'adequate' means that the site can be released under the 10CFR20.1402 (subpart E).

Section B "Final Site Configuration to Prevent or Confine Contamination". Final site configuration should be defined better. Does this refer to after construction or after decommissioning? This seems to imply that the post-closure land use should be decided prior to construction.

Section C1, part a. The reference to pressure differential should be defined. It could be to prevent leakage through the first barrier, or it could imply leakage past the first barrier does not leak past the 2nd barrier. (e.g., PWR steam generators and turbine condensers are two barriers in nuclear plants. These barriers employ a pressure differential, but in opposite directions.)

Section C1, part v. This seems to be misplaced. Locker rooms and clean up showers, if referring to non-radiological systems, should not be normally routed to radiological systems. This unnecessarily increases the volume of radioactive waste. Limits for release to sewers should be considered.

Section C2, second to last sentence in introduction. Typographical error, 'is was not possible'.

Section C2, part q. Reference to 'naturally occurring levels' should be defined.

SUNSI Review Complete

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(exo)



Section C3, part b, second paragraph. The first sentence should be rephrased. Does it mean 'unrecorded residual activity?'

Section D, "Implementation" should be physically located before Section C, "Regulatory Position". The document would have a more logical and useful flow if the guide were ordered as to who this guide applies to and expected degree of implementation (current section D), and then the methods of implementation (current section C). Readers must know who these regulatory positions apply to and the expectation of degree of implementation prior to reviewing all of the regulatory positions.

Figure 1 uses the terms "large volumes of dispersible radioactive material" and "significant volumes of dispersible radioactive material" in the decision boxes of the flow chart. These terms are not defined in the regulatory guide and are highly subjective. Since these are key terms in the flow chart, some type of definition or distinguishing criteria should be provided in the regulatory guide.

Table 1. The information is not presented clearly in this table. There are row headers Group 1, Group 2, etc.; then the table is completed using a rating scale of 1 to 3. To minimize confusion the rating scale should not be numeric. The suggested rating scale should be L (for low), M (for moderate), and H (for high).

Table 1. Medical use of radioactive material should be rated as a "1" for liquid and dry solid. Due to the short half-life of the material used in medical facilities, it is unlikely these facilities will need to implement the guidances in this regulatory guide.

Table 1. Laboratories, research facilities, and academic and broad scope facilities were not rated and would be much more likely to use materials with long half-lives than medical facilities. These laboratories, research facilities, and academic and broad scope facilities would most likely be rated as a "2" for liquid, gas, and dry solid physical forms.

Table 1. Radioactive waste processors should be included in Group 2.

Table 1, legend note "*" is defined as "emphasis on inventory control". This concept of inventory control seems inappropriate in this guide. This guide addresses minimization of contamination, but none of the regulatory positions discuss "inventory control."

If you should have any questions, do not hesitate to contact me at (360) 236-3241.

Sincerely,



Mikel J. Elsen, Supervisor
Waste Management Section