REGULATORY ANALYSIS

DRAFT REGULATORY GUIDE (DG-7010)
"LEAKAGE TESTS ON PACKAGES FOR SHIPMENT OF RADIOACTIVE MATERIAL"

(Proposed Revision 2 of Regulatory Guide 7.4, dated March 2012)

1. Statement of the Problem

The U.S. Nuclear Regulatory Commission (NRC) is considering a revision to Regulatory Guide (RG) 7.4, "Leakage Tests on Packages for Shipment of Radioactive Materials." It would be issued as Revision 2, to endorse an updated standard, developed by the Standards Committee on Packaging and Transportation of Radioactive and Nonnuclear Hazardous Materials, N14, Subcommittee of the American National Standards Institute (ANSI) N14.5-2014, "American National Standard for Radioactive Materials - Leakage Tests on Packages for Shipment," issued in 2014.

Regulatory Guide 7.4 was originally published in June 1975 to endorse the guidance in ANSI N14.5-1973 as an acceptable industry standard for leakage tests on Type B packages for shipment in accordance with the requirements in 10 CFR Part 71. Since that time the NRC has revised 10 CFR Part 71 a number of times. In 2012 the staff revised RG 7.4 (Revision 1) to endorse ANSI N14.5-1997 which was reaffirmed in 2008. However, ANSI updated ANSI N14.5 again in 2014. This revision would endorse the most recent standard.

2. Objective

The objective of this regulatory action is to assess the need to update NRC guidance to endorse the current version of a consensus standard, which contains new information, corrections, and clarifications, to demonstrate compliance with the 10 CFR Part 71 requirements.

Revising this regulatory guide to endorse portions of a consensus standard is consistent with the NRC policy of evaluating the latest versions of national consensus standards to determine their suitability for endorsement by regulatory guides. This is in accordance with Public Law 104-113, "National Technology Transfer and Advancement Act of 1995." This approach is described in the NRC's Management Directive (MD-6.5) – "NRC Participation in the Development and Use of Consensus Standards" (ML100600460).

3. Alternative Approaches

The NRC staff considered the following alternative approaches:

1. Do not revise Regulatory Guide 7.4;

2. Withdraw Regulatory Guide 7.4; and,

3. Revise Regulatory Guide 7.4 to address current methods and procedures.

Alternative 1: Do not revise Regulatory Guide 7.4

Under this alternative, the NRC would not revise this guidance document, and applicants, CoC holders, and licensees would continue to use Revision 1 of this RG. This alternative is considered the "no-action" alternative and provides a baseline condition from which any other alternatives will be assessed. However, this alternative would not enable them to easily use the current consensus standard that contains new information, corrections, and clarifications. Thus, the "no action" alternative would not address identified problems with the current version of the regulatory guide and the NRC would continue to review each application on a case-by-case basis

Alternative 2: Withdraw Regulatory Guide 7.4

Under this alternative the NRC would withdraw this RG. This would eliminate the problems identified above regarding the regulatory guide. It would also eliminate the only readily available description of the methods the NRC staff considers acceptable for demonstrating compliance with 10 CFR Part 71. Although this alternative would be less costly than the proposed alternative, it would impede the public's accessibility to the most current regulatory guidance.

Alternative 3: Revise Regulatory Guide 7.4

Under this alternative, the NRC would revise RG 7.4. This revision would endorse the ANSI N14.5-2014 standard and its appendices. By doing so, the NRC would ensure that the RG is using the best available information and best practices.

The impact to the NRC would be the costs associated with preparing and issuing a revision to the RG. The impact to the public would be the voluntary costs associated with reviewing and providing comments to NRC during the public comment period. The value to NRC staff and its applicants would be the benefits associated with enhanced efficiency and effectiveness in using a common guidance document for license applications and other interactions between the NRC and its regulated entities.

Conclusion

Based on this regulatory analysis, the NRC staff concludes that a revision of RG 7.4 to endorse ANSI N14.5-2014 is warranted. The proposed action will provide updated staff guidance regarding leakage tests on packages for shipping of radioactive material to comply with 10 CFR Part 71 requirements.