REGULATORY ANALYSIS

DRAFT REGULATORY GUIDE DG-7008
LEAKAGE TESTS ON PACKAGES FOR SHIPMENT OF RADIOACTIVE MATERIALS

(Proposed Revision 1 to Regulatory Guide 7.4, dated June 1975)

Statement of the Problem

Regulatory Guide 7.4 was originally published in June 1975 to endorse the guidance in the American National Standards Institute (ANSI) Standard N14.5 as an acceptable method for complying with the then current version of Title 10, *Code of Federal Regulations*, Part 71, "Packaging and Transportation of Radioactive Material" (10 CFR Part 71). Since that time the U.S. Nuclear Regulatory Commission (NRC) has revised 10 CFR Part 71 a number of times and the ANSI N14.5 Standard has been revised twice with no change in the regulatory guide.

Objective

The objective of this regulatory action is to update NRC guidance and provide applicants and licensees with a method to demonstrate compliance with the 10 CFR Part 71 requirements for leak testing packages. Revising a regulatory guide 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 approach will also comply with the NRC's directive that standards developed by consensus bodies must be used in accordance with Public Law 104-113, "National Technology Transfer and Advancement Act of 1995."

Alternative Approaches

The NRC staff considered the following alternative approaches:

- Do not revise Regulatory Guide 7.4.
- Withdraw Regulatory Guide 7.4.
- Revise Regulatory Guide 7.4 to match ANSI N14.5-1997
- Revise Regulatory Guide 7.4 to endorse ANSI N14.5-1997.

Alternative 1: Do Not Revise Regulatory Guide 7.4

Under this alternative, the NRC would not revise this document, and applicants would continue to use the original version of this regulatory guide. However, this alternative would cause conflicting guidance to remain in effect and could cause unnecessary confusion. This alternative is considered the baseline or "no action" alternative and, as such, involves no value/impact considerations.

Alternative 2: Withdraw Regulatory Guide 7.4

Withdrawing this regulatory guide would eliminate the duplicative and somewhat contradictory information that currently exists between the two transportation standard review plans (NUREG-1609, "Standard Review Plan for Transportation Packages for Radioactive Material" and NUREG-1617, "Standard Review Plan for Transportation Packages for Spent Nuclear Fuel") and the current version of Regulatory Guide 7.4. (Note that although the regulatory guide endorses the 1974 version of the ANSI standard, the NRC staff has been directing applicants to use the most recent version of the standard for the past 10 years.) However, this action would fail to provide clear guidance in an efficient manner and would fail to provide a quick means for interested parties to identify the requirements necessary to perform the containment evaluation for radioactive material transportation packages. Although this alternative would cost relatively little, it may impede the public's accessibility to the most current information.

Alternative 3: Revise Regulatory Guide 7.4 to Match ANSI N14.5-1997

Revising the regulatory guide to match ANSI N14.5-1997 would create duplicate sources of information, would require substantial expansion of the current guide, and would require a large expenditure of labor without a noticeable enhancement in performance or efficiency for the NRC or its licensees. Additionally, the ANSI N14.5 Subcommittee is in the process of revising ANSI N14.5, which is expected to be available for use in 2 to 3 years. Revising this guide to match the standard would require the same level of effort when the revised version is available and would not be an efficient or effective use of Agency resources. Revising RG 7.4 to Match ANSI N14.5-1997 would be an unnecessary use of NRC staff resources.

Alternative 4: Revise Regulatory Guide 7.4 to endorse ANSI N14.5-1997

The June 1975 version of the regulatory guide contains an outdated methodology that has been revised and updated by the ANSI N14 Committee, most recently in 1997. The NRC staff participated in that revision to the ANSI standard and concludes that the methodology provided in the standard represents an acceptable method to meet the containment requirements in 10 CFR Part 71. Because regulatory guides often endorse consensus standards, revising this regulatory guide to endorse the ANSI N14.5 standard would be consistent with past NRC practices and represent the most efficient and effective use of NRC resources.

Conclusion

The NRC intends to issue this regulatory guide to endorse ANSI N14.5-1997 to enhance the licensing process. The NRC staff has concluded that the proposed action will reduce unnecessary burden on both the NRC and its licensees and will result in an improved and more uniform process for qualifying safety-related connection assemblies. Moreover, the NRC staff concludes that there are no adverse effects associated with issuing this regulatory guide.