

Regulatory Guide Periodic Review

Regulatory Guide Number: 1.11, Revision 1

Title: Instrument Lines Penetrating Primary Containment

Office/Division/Branch: NRR/DSS/SCPB

Technical Lead: Brian Lee

Staff Action Decided: Reviewed with issues identified for future consideration

1. What are the known technical or regulatory issues with the current version of the Regulatory Guide (RG)?

RG 1.11, "Instrument Lines Penetrating Primary Reactor Containment," was published in March 2010. The RG defines a basis that the staff of the U.S. Nuclear Regulatory Commission (NRC) considers acceptable to implement the intent of General Design Criterion (GDC)-55, "Reactor Coolant Pressure Boundary Penetrating Containment," and GDC-56, "Primary Containment Isolation," of Appendix A, "General Design Criteria for Nuclear Power Plants," to Title 10 of the Code of Federal Regulations Part 50, "Domestic Licensing of Production and Utilization Facilities", with regard to instrument lines.

A review of the references with RG 1.11 and of NUREG-0800, "Standard Review Plan," was performed to ascertain if any changes in the references warranted a revision to RG 1.11. The following considerations were noted:

- Update reference #4. RG 1.141 is now on Revision 1, dated July 2010.
- American Nuclear Society (ANS)/American National Standards Institute (ANSI) standard ANS 56.2/ANSI N271-1976, which is referenced in this RG, is currently being revised by the ANS 56.2 working group. Any future revision to RG 1.11 should consider the impact of this revised industry standard.

There are no known current technical or regulatory issues with Revision 1 of the RG.

2. What is the impact on internal and external stakeholders of not updating the RG for the known issues, in terms of anticipated numbers of licensing and inspection activities over the next several years?

For operating reactors, their primary containment instrument lines penetration and isolation barrier design have been long established and configurations other than described in the RG have been reviewed and approved by the staff. There are no known issues with those nuclear units currently in construction or have had designs approved that would suggest a near term need to revise this RG.

- 3. What is an estimate of the level of effort needed to address identified issues in terms of full-time equivalent (FTE) and contractor resources?**

The staff identified no technical issues during its review and a revision is not planned at this time, therefore no estimate of resources was made.

- 4. Based on the answers to the questions above, what is the staff action for this guide (Reviewed with no issues identified, Reviewed with issues identified for future consideration, Revise, or Withdraw)?**

Reviewed with issues identified for future consideration.

- 5. Provide a conceptual plan and timeframe to address the issues identified during the review.**

The staff identified no issues warranting a revision during its review.

NOTE: This review was conducted in May 2025 and reflects the staff's plans as of that date. These plans are tentative and subject to change.