

Regulatory Guide Periodic Review

Regulatory Guide Number: **1.163**

Title: **Performance-Based Containment Leak-Test Program**

Office: **NRR/DSS/SCVB**

Technical Lead: **Jerome Bettle**

Recommended Staff Action: **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 1.163, Revision 0, "Performance-Based Containment Leak-Test Program" was originally developed in 1995 to endorse the Nuclear Energy Institute (NEI) Topical Report (TR) 94-01, "Industry Guideline for Implementing Performance Based Option of 10 CFR Part 50, Appendix J," Revision 0. RG 1.163 Revision 0 is currently out of date with respect to the current industry guidelines because of updates to TR 94-01. NEI issued Revision 2-A in 2008 which includes provisions for extending the performance based Type A test interval to 15 years, and Revision 3-A in 2012 which includes guidance for extending Type C local leak rate test (LLRT) intervals beyond 60 months.

In its Safety Evaluation for Revision 2 to NEI 94-01 (ML081140105), the NRC provided several limitations and conditions on the use of NEI 94-01. The limitations and conditions provided in the Safety Evaluation for Revision 2 also apply to Revision 3-A. However, the Revision 2-A limitations and conditions were not incorporated into NEI 94-01, Revision 3-A. Therefore, the requirements of RG 1.163, Revision 0 and NEI 94-01, Revision 3-A are not consistent regarding test intervals. This creates confusion as to which document to use for implementing a performance-based leak test program.

The NRC communicated this issue in a letter to NEI dated August 30, 2013 (ML13192A394). The letter requested NEI to update TR 94-01 to correct the deficiencies. The NRC has not yet received an updated revision from NEI.

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?

The inconsistency regarding test intervals between the original NEI Topical Report and the more recent revisions is creating regulatory uncertainty as to which document to use for implementing a performance-based leak test program. The test intervals for the testing are long so the impact is not immediately felt but it will affect all commercial nuclear power plants that submit applications to adopt the Type A and Type C extended test intervals using TR 94-01.

- 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 level of effort needed revise the RG is approximately 0.2 FTE, once NEI corrects the deficiencies identified in the NRC letter of August 30, 2013.

- 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.**

N/A

NOTE: This review was conducted in September 2014 and reflects the staff's plans as of that date. These plans are tentative and subject to change.