

Regulatory Guide Periodic Review

Regulatory Guide Number: **1.177, Revision 1**

Title: **An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications**

Office/division/branch: **RES/DRA/PRB**

Technical Lead: **Anders Gilbertson**

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 1.177, “An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications,” was issued in May, 2011, to improve consistency in regulatory decisions when the results of risk analyses are used to help justify technical specifications (TS) changes. In Title 10 of the Code of Federal Regulations (10 CFR) Section 50.36, “Technical Specifications,” the Commission established its regulatory requirements related to the contents of TS.

In SRM-SECY-11-0014, “Staff Requirements – SECY-11-0014 – Use of Containment Accident Pressure in Analyzing Emergency Core Cooling System and Containment Heat Removal System Pump Performance in Postulated Accidents,” the staff were directed by the Commission to revise Regulatory Guide (RG) 1.174, “An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis,” using precise language to assure that the defense-in-depth philosophy is interpreted and implemented consistently, which includes similarly revising other regulatory guidance that refers to defense-in-depth, as appropriate. Section 2.2.1 of RG 1.177 contains guidance related to ensuring that a risk-informed change is consistent with the defense-in-depth philosophy. As such, RG 1.177 should be revised as regulatory guidance that will need revisions similar to RG 1.174 to ensure consistency with the defense-in-depth philosophy that guidance. The staff plans to revise RG 1.177 by the third quarter of FY 2017.

Additionally, the references in RG 1.177 should be updated, as appropriate, including withdrawal of any referenced RGs, such as RG 1.176. The format of RG 1.177 should also be updated to conform to the latest acceptable RG format.

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 current NRC efforts to precisely define the agency’s defense-in-depth philosophy are expected to result in significant modifications to the guidance in RG 1.174, and will affect related guidance such as RG 1.117. Therefore, RG 1.177 needs to be revised to

include the revised guidance of the defense-in-depth to be consistent with RG 1.174. If RG 1.177 is not revised licensing reviews of related risk-informed applications may result in significantly inconsistent licensing reviews.

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?

An estimate of the effort needed to revise RG 1.177 is between 0.04 full-time equivalent (FTE) and 0.10 FTE. No contract dollars are required.

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 plans to develop a proposed draft guide of RG 1.177, Revision 2, after RG 1.174, Revision 3, has been completed (by the third quarter of FY 2017). The current due date for completing the draft RG 1.177, Revision 2, will be is by the end of FY 2017.

References

1. SRM-SECY-11-0014, "Staff Requirements – SECY-11-0014 – Use of Containment Accident Pressure in Analyzing Emergency Core Cooling System and Containment Heat Removal System Pump Performance in Postulated Accidents," U.S. Nuclear Regulatory Commission, March, 2011, ADAMS Accession No. ML110740254.
2. Regulatory Guide 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," U.S. Nuclear Regulatory Commission, May, 2011, ADAMS Accession No. ML100910006.
3. SRM-SECY-13-0132, "Staff Requirements – Secy-13-0132 – U.S. Nuclear Regulatory Commission Staff Recommendation for the Disposition of Recommendation 1 of the Near-Term Task Force Report," U.S. Nuclear Regulatory Commission, May, 2014, ADAMS Accession No. ML14139A104.
4. SECY-13-0132, "U.S. Nuclear Regulatory Commission Staff Recommendation for the Disposition of Recommendation 1 of the Near-Term Task Force Report," U.S. Nuclear Regulatory Commission, May, 2014, ADAMS Accession No. ML13277A418.

NOTE: This review was conducted in September, 2016 and reflects the staff's plans as of that date and are subject to change.