

Update Regulatory Guide 1.174
AN APPROACH FOR USING PROBABILISTIC RISK ASSESSMENT IN RISK-INFORMED
DECISIONS ON PLANTSPECIFIC CHANGES TO THE LICENSING BASIS

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.

A working group was convened in early 2011 to perform this work and a draft revision of RG 1.174 was developed and discussed during a public meeting with the Nuclear Energy Institute and other public stakeholders on June 8, 2011. As part of this effort, the NRC staff identified RG 1.175, “An Approach for Plant-Specific, Risk-Informed Decision-Making: Inservice Testing,” RG 1.177, “An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications,” and RG 1.178, “An Approach for Plant-Specific, Risk-Informed Decisionmaking for Inservice Inspection of Piping,” as other regulatory guidance that needed revisions similar to RG 1.174. Subsequently, draft regulatory guides (DGs) for RG 1.174, RG 1.175, RG 1.177, and RG 1.178 were developed and issued for public review and comment in May, 2012 and the DGs were revised based on both public and NRC staff comments.

No additional work has been performed under this effort since the DGs were revised by virtue of the fact that other similar efforts to address the interpretation and implementation of the NRC’s defense-in-depth philosophy had been initiated during the DG development period. Examples of some of the other similar activities include the development of the Near Term Task Force Recommendation 1 Commission Paper and the development of a proposed Risk Management Regulatory Framework (RMRF). Because of the substantial influence on the efforts to clarify the interpretation and implementation of the NRC’s defense-in-depth philosophy and the general precedence of these other activities over the staff efforts, as directed by SRM-SECY-11-0014, the effort to revise RG 1.174 and the related RGs has been suspended pending the outcome of the Commission’s vote on the recommendations in the upcoming RMRF Commission Paper.

- Issue SECY 05-0052 forwarding proposed rule defining alternative risk-informed option ECCS evaluation criteria and risk-informed acceptance criteria for associated plant design and operational changes (03/2005)
- Issue draft NUREG report on expert elicitation results for LOCA frequencies for comment (06/2005)
- Issue proposed rule on risk-informing 50.46 for public comment (11/2005)
- Provide draft final rule to ACRS for review (10/16/2006)
- Meet with ARCS (11/2006)
- ACRS letter recommending changes be made to the Rule (11/16/2006)
- Issue SECY 07-0082 forwarding proposed resolution of ACRS recommendations to the Commission (5/16/2007)
- SRM on SECY 07-0082 (8/10/2007)
- Note to the Commission providing Plans And Schedule For The Rulemaking On Risk-informed Changes To Loss-Of-Coolant Accident Technical Requirements (04/01/2008)
- NUREG-1829, Estimating Loss-of-Coolant Accident (LOCA) Frequencies Through the Elicitation Process published (04/2008)
- ACRS letter concluding that draft final rule provides an acceptable risk-informed alternative to the current 10CFR50.46(a) for operating reactors (10/2010)
- Issue SECY-10-0161, forwarding proposed final rule: Risk-Informed Changes to Loss-of-Coolant Accident Technical Requirements (10 CFR 50.46a) (12/10/2010).

Future Milestones

Selected Major Milestones and Schedules				
Major Milestones	Original Target Date	Revised Date	Completion Date	NRC Responsibility
Provide final rule on 50.46a to Commission for approval	October 2006	December 2010	December 2010	NRR/DPR
Provide final rule on 50.46a to Commission for approval	TBD			NRR/DPR
Provide a regulatory guide on 50.46a implementation	December 2006	TBD		NRR/DSS