Develop an Alternative Risk-Informed Approach to Special Treatment Requirements in 10 CFR Part 50

Lead Office/Division: NRR/DRA

Description

The Commission decided in 1998 to consider promulgating new regulations that would provide an alternative risk-informed approach for special treatment requirements in the current regulations for power reactors. Special treatment requirements for structures, systems, and components go beyond industry-established requirements for equipment classified as "commercial grade." Special treatment requirements provide additional confidence that the equipment is capable of meeting its functional requirements under design basis conditions. These special treatment requirements include additional design considerations, qualification, change control, documentation, reporting, maintenance, testing, surveillance, and quality assurance requirements.

The Commission approved the final rule, with some modifications, in an affirmation session on October 7, 2004. The final rule was published in the *Federal Register* on November 22, 2004 (69 FR 68008). The NRC staff issued Regulatory Guide (RG) 1.201, "Guidelines for Categorizing Structures, Systems, and Components in Nuclear Power Plants According to Their Safety Significance," Revision 1, on April 28, 2006.

On September 25, 2006, the Nuclear Energy Institute submitted Westinghouse Topical Report WCAP-16308-NP (Revision 0, July 2006), "Pressurized Water Reactor Owners Group 10 CFR 50.69 Pilot Program - Categorization Process - Wolf Creek Generating Station," for NRC review. The application primarily addresses the categorization of passive component functions, i.e., the pressure boundary failure of pipes and components. The staff developed draft requests for additional information (RAIs) on the topical report, and a public meeting was held July 11, 2007 to discuss the RAIs. The staff's RAIs were submitted to Westinghouse on August 27, 2007, and answered on October 22, 2007, and July 15, 2008. A draft safety evaluation that includes several limitations and conditions that must be applied before the proposed method is found acceptable has been prepared. The industry is planning pilot applications of 10 CFR 50.69 when the methodology for categorization of passive functions has been finalized.