



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, DC 20555 - 0001

ACRSR-2245

April 23, 2007

Luis A. Reyes
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: RISK-INFORMED TECHNICAL SPECIFICATIONS INITIATIVE 4B, RISK-MANAGED TECHNICAL SPECIFICATIONS (RMTS) GUIDELINES

Dear Mr. Reyes:

During the 541st meeting of the Advisory Committee on Reactor Safeguards, April 5–7, 2007, we met with representatives of the NRC staff, Electric Power Research Institute, and the South Texas Project (STP) Nuclear Operating Company to discuss the industry guidance document NEI 06-09, "Risk-Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines," issued in November 2006, the associated staff's draft safety evaluation, as well as the pilot plant implementation of RMTS at STP. Our subcommittee on Reliability and Probabilistic Risk Assessment reviewed these matters on March 23, 2007. We also had the benefit of the documents referenced.

CONCLUSION

We concur with the staff that the program requirements of NEI 06-09 are acceptable for referencing by licensees proposing to amend their technical specifications to implement RMTS.

DISCUSSION

Initiative 4b, Risk-Managed Technical Specifications, is one of several industry risk-informed technical specification initiatives. Its overall objective is to modify technical specification completion times based on the risks associated with the corresponding plant configurations. Current technical specifications consider systems independently and do not account for the risk impact of other equipment being out of service. The configuration risk assessment requirement of the maintenance rule in 10 CFR 50.65(a)(4), was added to address this consideration, but does not obviate compliance with current technical specification requirements. These requirements may not represent the most risk-effective actions for the corresponding plant configurations.

Initiative 4b provides a methodology for determining risk-informed extended completion times (with a 30-day limit) for the required actions of the technical specifications. The methodology is based on establishing risk thresholds for the incremental core damage probability and the incremental large early release probability, and calculating the associated times to reach these thresholds. An important element is the programmatic requirement to implement reasonable compensatory measures to manage risk for times that result in an increase in core damage probability $> 10^{-6}$ or an increase in large early release probability $> 10^{-7}$.

The major benefit of this initiative is that it provides flexibility to the licensees to operate the plants according to the risk associated with specific plant configurations. It heightens the operators' awareness of the existing risk profile of the plant, and avoids unnecessary plant shutdowns.

The implementation guidance in NEI 06-09 includes program requirements for the technical adequacy and quality of the supporting probabilistic risk assessment, configuration risk management tool attributes, and monitoring conformance with the guidelines in Regulatory Guide 1.174. We concur with the staff that the program requirements in NEI 06-09 for the implementation of Initiative 4b are acceptable.

Sincerely,

/RA/

William J. Shack
Chairman

References:

1. NEI 06-09, Rev. 0, "Risk-Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines," November 2006 (ADAMS Accession No. ML063390639).
2. Memorandum from T. J. Kobetz, Chief, Technical Specifications Branch, NRR, to S. L. Rosenberg, Chief, Special Projects Branch, NRR, "Draft Safety Evaluation Relating to NEI 06-09, Risk-Managed Technical Specifications Guidelines, for Risk Management Technical Specifications Initiative 4B, Risk-Informed Completion Times," provided on February 28, 2007.
3. Draft revisions to "Draft Safety Evaluation Relating to NEI 06-09, Risk-Managed Technical Specifications Guidelines, for Risk Management Technical Specifications Initiative 4B, Risk-Informed Completion Times," (2 pages) provided on March 23, 2007.
4. Letter from D. W. Rencurrel, STP, to U.S. Nuclear Regulatory Commission, "South Texas Project Units 1 and 2 Docket Nos. STN 50-498, STN 50-499, Revised Broad Scope Risk-Informed Technical Specification Amendment Request," June 6, 2006, NOC-AE-06002005 (ADAMS Accession No. ML061630315).
5. Memorandum from L. A. Mrowca, Chief, Probabilistic Risk Assessment Licensing Branch B, NRR to D. Terao, Chief, Plant Licensing Branch IV, NRR, "Audit Report Regarding South Texas Project, Units 1 and 2, Risk-Managed Technical Specifications Application," October 5, 2006, (ADAMS Accession No. ML062860170).
6. Regulatory Guide 1.174, Revision 1, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," November 2002.

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