

April 17, 2002

The Honorable Richard A. Meserve
Chairman
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Chairman Meserve:

SUBJECT: GE NUCLEAR ENERGY LICENSING TOPICAL REPORT, NEDC-33004P, "CONSTANT PRESSURE POWER UPRATE" (REVISION 1)

During the 491st meeting of the Advisory Committee on Reactor Safeguards, April 11–12, 2002, we completed our review of General Electric's application for approval of GE Nuclear Energy Licensing Topical Report, NEDC-33004P, "Constant Pressure Power Uprate," Revision 1, and the related draft safety evaluation performed by the NRC staff. Our Subcommittee on Thermal-Hydraulic Phenomena reviewed this matter during meetings held on January 16-18 and March 6, 2002. During our review, we had discussions with representatives of GE Nuclear Energy and with the NRC staff. We also had the benefit of the documents referenced.

Recommendation

The constant-pressure power uprate methodology should be approved for application to BWR power increases of up to 20 percent of the original licensed thermal power.

Discussion

The GE constant-pressure power uprate methodology represents an innovative approach to BWR power uprates. The methodology in this licensing topical report simplifies the analytical work that the licensee must do to justify a power uprate and minimizes changes to the reactor plant. Most physical changes for power uprates are installed in the balance of plant to accommodate the increased steam and feedwater flows that will occur from the increased power rating. We agree with the staff's determination that the constant-pressure power uprate methodology should be approved for BWR power increases of up to 20 percent.

Although the plant reload analyses used for the uprates are based on methodology that has been reviewed and approved by the staff, we support the staff's continuing effort to audit them. We also encourage staff audits of the application of reload analysis methods to transitional reloads for plants undergoing substantial power uprates.

ACRS Members F. Peter Ford and Victor H. Ransom did not participate in the Committee's deliberations on this matter.

Sincerely,

/RA/

George E. Apostolakis
Chairman

References:

1. Memorandum dated July 26, 2001, to U. S. Nuclear Regulatory Commission, from J. F. Klapproth, GE Nuclear Energy, transmitting GE Proprietary Licensing Topical Report, "Constant Pressure Power Uprate," Revision 1 (Proprietary).
2. Memorandum dated February 27, 2002, to John T. Larkins, ACRS, from John A. Zwolinski, Office of Nuclear Reactor Regulation, NRC, transmitting Revised Draft Safety Evaluation for GE Constant Pressure Power Uprate Licensing Topical Report (Predecisional).
3. GE Nuclear Energy, Topical Report, NEDC-32424P-A, "Generic Guidelines for General Electric Boiling Water Reactor Extended Power Uprate," February 1999 (Proprietary).
4. GE Nuclear Energy, Topical Report, NEDC-32523P-A, "Generic Evaluations of General Electric Boiling Water Reactor Extended Power Uprate," February 2000 (Proprietary).
5. GE Nuclear Energy, Topical Report, NEDC-32523P-A, Supp 1, Volume 1, "Generic Evaluations of General Electric Boiling Water Reactor Extended Power Uprate - Supplement 1, Volume I," February 1999, and Volume II, April 1999 (Proprietary).