

October 22, 2001

Mr. James F. Klapproth, Manager
Engineering & Technology
GE Nuclear Energy
175 Curtner Avenue
San Jose, CA 95125

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING TOPICAL
REPORT NEDC-33004P, REVISION 1, "CONSTANT PRESSURE POWER
UPRATE" (CPPU) (TAC NO. MB2510)

Dear Mr. Klapproth:

By letter dated July 26, 2001, GE Nuclear Energy (GENE) submitted for staff review Topical Report NEDC-33004, "Constant Pressure Power Uprate," Revision 1. After discussions with GENE, it was decided that as each technical review branch develops a request for additional information (RAI) for the areas of the CPPU topical report under its review, the staff would issue the RAI. This is being done for the purpose of saving review time. Any subsequent RAIs from other branches will be issued when they become available.

The enclosed RAI was discussed with your staff on October 4, 2001. GENE agreed to submit the responses to the RAI within 3 weeks of receipt of this request. If you have any questions, please contact me at (301) 415-3016.

Sincerely,

/RA/

Robert Pulsifer, Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Project No. 710

Enclosure: Request for Additional Information

cc w/encl: See next page

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GE Nuclear Energy

Project No. 710

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REQUEST FOR ADDITIONAL INFORMATION

TOPICAL REPORT NEDC-33004P, REVISION 1

"CONSTANT PRESSURE POWER UPRATE"

PROJECT NO. 710

Concerning operator response, the report states that the increase in power level results in changes to event dynamics. Constant pressure power uprate (CPPU) reduces certain operator response times which could decrease operator reliability. Based on probabilistic risk analysis (PRA) experience for uprated boiling-water reactors (BWRs), some effect is expected on PRA results [such as core damage frequency (CDF) and large early release frequency (LERF)]. The CPPU effect will be determined when the plant specific PRA is revised.

1. The staff believes that the results of the plant specific PRA, by themselves, would not provide sufficient information to support a safety evaluation concerning the effect of CPPU on operator response. The staff will expect the plant-specific submittal to explain and justify any changes in plant risk that result from changes in risk-important operator actions. The submittal should describe any new risk-important operator actions required as a result of the proposed power uprate and changes (e.g., reduced time available or additional time required) to any current risk-important operator actions that will occur as a result of the power uprate. The submittal should describe the specific procedural steps involved in these actions. The submittal should also address any operator workarounds that might affect these response times and identify any operator actions that are being automated as a result of the power uprate. Please state how the guidance to be provided by GE will be consistent with the staff's expectations for the plant specific submittal.
2. With regard to operator training, the report states that classroom training will address "various aspects of CPPU." Although examples of training topics are provided, it is not clear what selection criteria would be used to identify the material that will be addressed in training. Please describe the criteria for selecting the training topics or how the guidance to be provided by GE will be consistent with the selection of training topics in accordance with a systems approach to training.
3. With regard to operator training, the report also states that simulator changes and fidelity revalidation will be performed in accordance with ANSI/ANS 3.5-1985. Please describe the schedule for these activities relative to the implementation of the associated simulator training and uprated power operation. The staff notes that the topical report (TR) guidance, as presently written, commits licensees to use ANSI/ANS 3.5-1985. More recent revisions of this standard that have been endorsed by the NRC (including the 1998 revision for which NRC endorsement is expected in the near-term) would also be acceptable and may be preferable. Please state why the TR guidance is limited to the 1985 revision of ANSI/ANS 3.5.
4. The report does not identify the human factors changes that will be necessary to support CPPU. The staff will need to know the changes that will be made to control room

displays, controls, and alarms and how the operators will be tested to determine that they can use the instruments reliably. Please provide this information or the bases for a conclusion that necessary human factors changes will be identified and implemented as part of a licensee's preparation for CPPU.

5. Concerning the effect of power uprate on procedures, in addition to the description of changes to the emergency operating procedures the report should address any changes to abnormal operating procedures. Please describe the effect of CPPU on abnormal operating procedures and the basis for GENE's disposition.