



OLIVER D. KINGSLEY, JR.
Vice President
Nuclear Operations

March 30, 1988

U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Document Control Desk

Gentlemen:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
Response to Generic Letter 83-28,
Item 4.5.3
AECM-88/0057

Attached is the System Energy Resources, Incorporated (SERI) plant specific final response to Item 4.5.3 of NRC Generic Letter 83-28, "Required Actions Based on Generic Implications of Salem ATWS Events." This NRC action item required availability studies to be carried out to evaluate the adequacy of the existing intervals for on-line functional testing when accounting for various factors which may affect reactor protection system (RPS) availability.

In AECM-84/0349, dated September 11, 1984, SERI stated that the evaluation of test intervals requested in Item 4.5.3 would be addressed as part of a generic effort being developed by the Boiling Water Reactor Owners' Group (BWROG). In letter BWROG-8505, dated January 31, 1985, the BWROG generic response to Item 4.5.3 was submitted to the NRC in the form of General Electric Licensing Topical Report NEDC-30844, entitled "BWR Owners' Group Response to NRC Generic Letter 83-28, Item 4.5.3".

The NRC requested SERI in a letter (MAEC-85/0088), dated March 14, 1985 to provide a plant specific response to Item 4.5.3 within 90 days following NRC issuance of its evaluation of NEDC-30844, if SERI intended to formally endorse the BWROG response. SERI formally endorsed the BWROG report NEDC-30844 in AECM-85/0157, dated May 14, 1985 and committed to provide a plant specific response for Item 4.5.3 within 90 days of NRC issuance of the NEDC-30844 evaluation.

The NRC issued its safety evaluation of NEDC-30844 to the BWROG in a letter dated July 15, 1987. Due to the workload to support the then upcoming second refueling outage, SERI verbally requested on September 24, 1987 an extension of the date required for a plant specific submittal from October 13, 1987 to March 30, 1988. The NRC Project Manager for Grand Gulf Nuclear Station verbally agreed on September 24, 1987 to extend the response deadline to March 30, 1988.

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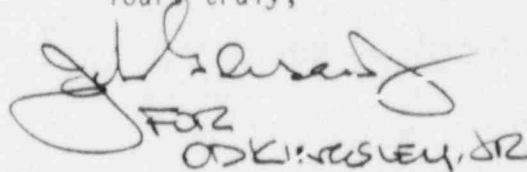
Attachment I of this letter provides the plant specific response to Item 4.5.3.

General Electric company report MDE-80-0485, dated April 1985, is submitted as Attachment II to support the SERI response to Item 4.5.3. This document contains information which General Electric Company considers confidential and proprietary. Consequently, it is requested that this report (Attachment II) be withheld from public disclosure in accordance with 10 CFR 2.790. An executed affidavit of Ricardo Artigas, Manager, Licensing and Consulting Services of General Electric Company, is included as part of Attachment II in support of this request.

Attachment III is an addendum documenting changes in the plant specific model evaluated by General Electric in report MDE-80-0485 from when the report was originally prepared.

This letter completes the SERI actions required for closure of Generic Letter 83-28 Item 4.5.3.

Yours truly,



FOR
ODK:KINSLEY, JR

ODK:bms

Attachments: I - Response to Item 4.5.3 of Generic Letter 83-28 for Grand Gulf Nuclear Station Unit 1
II - General Electric Company Report MDE-80-0485 (Proprietary)
III - Addendum to General Electric Company Report MDE-80-0485

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Response to Item 4.5.3 of Generic Letter 83-28
for Grand Gulf Nuclear Station Unit 1

Enclosure 1 of the letter from A. C. Thadani (NRC) to T. A. Pickens (BWROG) dated July 15, 1987 is the NRC's Safety Evaluation Report (SER) on General Electric Company (GE) Topical Reports NEDC-30844, "BWR Owners' Group Response to NRC Generic Letter 83-28, Item 4.5.3," and NEDC-30851P, "Technical Specification Improvement Analyses for BWR Reactor Protection System". The SER concluded that the analysis presented in the BWR Owners' Group Report, NEDC-30844, is acceptable for resolving Item 4.5.3 of General Letter 83-28. Table 1 of the SER specifies the following three requirements for plant specific closeout of Item 4.5.3 of Generic Letter 83-28.

The individual licensee must:

1. Confirm the applicability of the generic analyses to its plant.
2. Demonstrate, by use of current drift information provided by the equipment vendor or plant-specific data, that the drift characteristics for instrumentation used in RPS channels in the plant are bounded by the assumption used in NEDC-30851P when the functional test interval is extended from monthly to quarterly.
3. Confirm that the differences between the parts of the RPS that perform the trip functions in the plant and those of the base case plant were included in the analysis for its plant done using the procedures of Appendix K of NEDC-30851P (and the results presented in Enclosure 1 to letter OG5-491-12 from L. Rash (GE) to T. Collins (NRC) dated November 25, 1985), or present plant-specific analyses to demonstrate no appreciable change in RPS availability or public risk.

These items are addressed below:

1. A plant specific review of the applicability of NEDC-30844 to Grand Gulf Nuclear Station (GGNS) has been conducted. The review compared the GGNS RPS configuration and test procedure with the generic RPS evaluated in NEDC-30844.

Differences between the two were identified and the reliability effect of the differences was assessed. The differences and their effect are documented in GE report MDE-80-0485, "Technical Specification Improvement Analysis for the Reactor Protection System for Grand Gulf Nuclear Station Units 1 and 2", dated April 1985 (Attachment II). The report identifies three differences which were dispositioned by either an engineering assessment or additional analyses. The report concluded that the generic analysis is applicable to GGNS.

2. Since no extension of the functional test interval is being sought at this time, item 2 is not applicable for this submittal.

3. System Energy Resources, Incorporated (SERI) has reviewed the enclosed GE plant specific report for GGNS (MDE-80-0485) and has verified that the differences between the GGNS and generic reactor protection system were included in the plant specific analysis. However, since the plant specific analysis was done, four changes have occurred which make GGNS more similar to the generic plant. These four changes have no effect upon the GE plant specific analysis results and are discussed in Attachment III of this submittal. Therefore, the generic analysis in NEDC-30844 is applicable to GGNS.