



(PDR)
GE Nuclear Energy

General Electric Company
175 Curtner Avenue San Jose, CA 95125

May 4, 1988
MFN-45-88
RA88-84

U.S. Nuclear Regulatory Commission
Division of Engineering and Systems Technology
Washington, DC 20555

Attention: Ashok C. Thadani
Assistant Director for Systems

Subject: Associated Circuits in Control Room Panels

- References:
1. Letter MFN-016-88, R. Artigas to NRC (Attention: A. Thadani) dated March 7, 1988, same subject
 2. March 22, 1988 letter, A.C. Thadani to R. Artigas, same subject
 3. Letter MFN-035-88, R. Artigas to NRC (Attention: A. Thadani) dated April 7, 1988

Gentlemen:

This letter is in response to your March 7, 1988 letter (Reference 2) and your request at our May 4, 1988 meeting describing GE's program to reconfirm the design adequacy of associated circuits in GE BWRs.

In our January 22, 1988 meeting, GE presented the design and regulatory basis for the acceptability of non-IE components in associated circuits. We remain confident in the design of plants utilizing this standard industry practice and that no safety problem exists.

In order to be responsive to NRC's request for further design acceptability confirmation, GE is proceeding to assess other BWRs as proposed in our May 4 meeting as summarized here. The BWRs to be evaluated are listed in the attached Table 1. The confirmation program has two phases. Phase 1 includes an assessment of the pre-upgraded (non-IE, non-isolated) circuits and components for the Nine Mile Point 2 plant. The approach will consist of a confirmation of the existing Failure Modes and Effects Analyses (FMEAs), research of component test data and a tabulation of references for audit access. Summary reports as submitted on April 7, 1988 for the other NMP2 associated circuits will not be prepared. However, the same level of review utilized in preparing the submitted summary reports will be used in this effort. Upon completion of Phase 1, all NSSS associated circuits for a complete recently licensed BWR will have been thoroughly assessed.

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Phase 2 will provide an evaluation of the original design of all other BWRs committed to IEEE 279-1971 by comparing the associated circuit design of each plant in Table 1 with the NMP2 plant. The review will be a system level configuration comparison of the associated circuits system elementaries. Other appropriate design and licensing documentation, such as FSARs and design specifications, also will be considered. GE also intends to utilize the methods and results of previous related assessments including the 1981 system similarity review, other plant FMEAs and our internal analysis for Regulatory Guide 1.75.

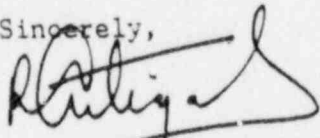
This system level evaluation will result in the identification of significant differences between the associated circuit designs of each of the plants and NMP2. These differences will then be assessed to confirm circuit and component adequacy.

Upon completion of Phases 1 and 2, GE will submit a letter by November 4, 1988, to the NRC summarizing the results of this design adequacy reconfirmation program.

We are confident that the program will provide the NRC with full assurance that BWR associated circuits in control room panels have been designed in full compliance with applicable regulatory requirements and with good engineering practice and that no safety problem exists.

Please call me or Dave Robare (408/925-3141) if you have any questions or comments concerning this submittal.

Sincerely,



R. Artigas, Manager
Licensing & Consulting Services
M/C 682, (408) 925-5040

cc: S. Newberry, NRC
L. S. Gifford

TABLE 1

DOMESTIC BWRs WITH FULL OR PARTIAL IEEE279(1971) COMPLIANCE REQUIREMENT

<u>BWR/6</u>	<u>BWR/5</u>	<u>LATE BWR/4</u>	<u>EARLY BWR/4</u>
GRAND GULF *	NMP 2 *	LIMERICK 1&2	BRUNSWICK 1&2
PERRY *	HANFORD 2	HOPE CREEK *	DUANE ARNOLD
CLINTON *	LASALLE 1&2	SUSQUEHANNA 1&2	HATCH 2
RIVER BEND *		SHOREHAM	
		FERMI	

* PARTIALLY OR FULLY COMMITTED TO RG 1.75