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 BUTLER, W.R. Project Directorate I-2

SUBJECT: Documents licensee response to Generic Ltr 89-19, "Safety Implications of Control Sys in LWR Nuclear Power Plants."

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Harold W. Keiser
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MAY 04 1990

Director of Nuclear Reactor Regulation
Attention: Dr. W. R. Butler, Project Director
Project Director I-2
Division of Reactor Projects
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION
GENERIC LETTER 89-19
CONTROL SYSTEMS
PLA-3388 FILE R41-1D

Dockets 50-387
50-388

Dear Dr. Butler:

This correspondence documents Pennsylvania Power & Light Company's response to Generic Letter 89-19 entitled "Safety Implication of Control Systems in LWR Nuclear Power Plants".

PP&L participated on the BWR Owner's Group Committee which developed the report submitted to NRC under BWROG - 9048 dated April 2, 1990. We endorse the conclusion that the BWR's addressed by the report have adequate and reliable automatic overfill protection consistent with the NRC requirements for closure of Unresolved Safety Issue A-47. We also agree that the cost to make plant modifications to provide additional redundancy and independence and to be in full compliance with the detailed requirements of Generic Letter 89-19 is substantial and therefore the modifications are not cost beneficial.

With respect to the specific requirements of the Generic Letter, the following is provided for information:

Susquehanna is a General Electric BWR 4. In accordance with the design descriptions on Page 3 of Enclosure 2 to the Generic Letter, Susquehanna is a Group I plant because its overfill protection system is initiated on a reactor vessel high water level signal based on a 2-out-of-3 initiating logic.

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Dr. W. R. Butler

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The Susquehanna feedwater control system is comprised of fail-safe overflow protection logic and control circuits. The overflow logic is divided into three separate channels, each with its own individual power supply. A portion of the feedwater level control circuitry is integrated into each of the three channels and is dependent on all three power sources for normal operation. The loss of one power source will not impact operation of the overflow protection system while a loss of more than one power source will initiate an overflow trip of the feedwater pumps, based on the fail-safe design.

On a loss of room ventilation, administrative procedures would be invoked with potential for a Unit shutdown. A fire in the relay room where the feedwater control cabinet is located could result in a number of scenarios. If a fire causes the disruption of one of the three channels, the remaining two channels ensure that the overflow protection system remains intact. Additionally, there is Halon fire suppression system in the cabinet and CO₂ protection in the room.

PP&L has procedures and technical specifications in place which include requirements to periodically verify operability of the feedwater overflow protection system.

PP&L's overflow protection system design is adequate and we plan no further actions with respect to this Generic Letter. If you have any questions please contact Mr. D. J. Walters at (215) 770-6536.

Very truly yours,



H. W. Keiser

cc: ~~NRC Document Control Desk~~ (Original)
Mr. G. S. Barber, NRC Resident Inspector
Mr. M. C. Thadani, NRC Project Manager
NRC Region I