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August 22, 1980

U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Washington, DC 20555

Attention: Harold R. Denton, Director

Gentlemen:

SUBJECT: ANTICIPATED TRANSIENTS WITHOUT SCRAM (ATWS) - GENERAL ELECTRIC COMMENTS ON NUREG-0460 (VOLUME 4) IMPLEMENTATION SCHEDULE

Reference: G. G. Sherwood letter to H. R. Denton, "Anticipated Transients Without Scram (ATWS) - General Electric comments on NUREG-0460 (Volume 4)," May 23, 1980

In our letter to you providing comments on Draft Volume of NUREG-0460 (Reference), we indicated that the proposed implementation schedules are unrealistic. As part of our preliminary ATWS design activities, we have analyzed implementation schedules and have reconfirmed our concern about the NRC proposed schedules. This letter provides schedule guidelines that we consider to be more realistic.

As you know, many existing plant systems would have to be modified in order to meet the ATWS requirements for BWR's as proposed in Draft Volume 4 of NUREG-0460. Because ATWS plant modifications must compete with the implementation of non-ATWS plant design efforts, only a limited number of plant-by-plant designs can be conducted concurrently. Specifications, diagrams, etc., for each of the affected plant systems must be changed and reviewed for their impact on the plant response to both ATWS and non-ATWS events. Detailed hardware design cannot be initiated until such reviews are completed. Only after completing the design and associated equipment qualification, can hardware be procured and fabricated for eventual installation at BWR sites.

At a June 24, 1980 meeting with the NRC, Middle South Services presented a preliminary schedule for implementing Alternate 3A on the Grand Gulf plant. This schedule, which assumed Grand Gulf would be one of the first to incorporate these requirements, indicated it would take at least three-and-a-half years to provide the plant modifications. Our current assessment indicates that this schedule is realistic.

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It is possible for near-term operating license (OL) plants to have a RPT of the Zimmer or modified Hatch design and ATWS operator procedures in place at startup. These plants could be retrofited for other ATWS modifications during a refueling outage after this ATWS hardware is available for that plant, which for the first near-term OL plants would be about four years. Because our first emphasis among plants under construction is on these near-term OL plants, it would be about four-and-a-half years before a plant could start up with Alternate 3A modifications in place. We are less certain about the operating plant schedule because it depends more on the implementation capabilities of the utility than do the near-term OL plants. We believe that the first operating plants to implement ATWS modifications will probably have a schedule comparable to the near-term plants. Our follow-on capability for operating plants would allow for ATWS hardware delivery to three or four units a year.

These guidelines assume that proposed regulatory requirements remain unchanged. There could be some reduction in these elapsed times for Alternate 2A plant modifications. We have not attempted to estimate a schedule for Alternate 4A, as we have not reviewed what specific plant modifications would be required to meet the proposed requirements. However, Alternate 4A would definitely require additional design, fabrication and installation time.

The probability of ATWS is well below the probability of transients and accidents for which we currently design. Because of this extremely low probability, General Electric believes Alternate 2A is the appropriate solution for meeting NRC goals for ATWS risks. However, if the NRC requires additional ATWS modifications, General Electric does not want these modifications to adversely affect existing system performance for the non-ATWS postulated transients and accidents. Implementation schedules must allow time for a disciplined engineering approach to these ATWS modifications, and they should not be counterproductive to the orderly design and implementation of other modifications having a greater safety importance than ATWS.

We would be pleased to discuss this matter further with you or members of your staff.

Very truly yours,

RMBuchholz for

Glenn G. Sherwood, Manager
Safety & Licensing Operation

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