

GENERAL ELECTRIC

NUCLEAR POWER
SYSTEMS DIVISION

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July 8, 1980

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

Attention: P. S. Check, Assistant Director for Plant Systems
Division of Systems Integration

Dear Mr. Check:

SUBJECT: MINUTES OF NRC/GE MEETING ON ECCS LICENSING ISSUES

This letter summarizes the June 19, 1980 NRC/GE meeting on ECCS Licensing Issues. GE had requested this meeting to review the LOCA analysis model and its amendments, the GESTR model, and the ECCS Input Reverification Program. GE presented information to demonstrate the need for NRC review and approval of the outstanding items and requested that NRC establish a definite action plan to resolve them.

HIGHLIGHTS OF MEETING

1. Completion of GESTR review and approval anticipated by early Fall 1980.
2. The NRC staff will issue a letter by July 11, 1980 defining the schedule for completion of the review of GESTR, the basic LOCA analysis model and Amendments 1, 2, 4, 5, 6 and 7. The schedule for review and approval of the LOCA model and its amendments will be consistent with the GESTR schedule.
3. GE proposed the use of technical working meetings in Bethesda to discuss and resolve any open issues related to the outstanding ECCS reviews. These meetings will expedite communications between GE and the NRC staff, thus expediting review and final resolution of open issues.

Additional details of the meeting are provided in Attachment 1. Attachment 2 contains the charts used during the GE presentation with the exception of two proprietary information charts on GESTR. The proprietary information is contained on previous GESTR submittals.

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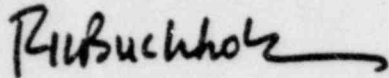
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Please contact Dr. Luis F. Rodriguez of my staff at (408) 925-2460 if there are any questions related to this matter.

Very truly yours,



R. H. Buchholz, Manager
BWR Systems Licensing
Safety and Licensing Operation

RHB:mm/1550-51

cc: L. S. Rubenstein, NRC
N. Lauben, NRC
W. Hodges, NRC
L. S. Gifford, GE

ATTACHMENT 1

DETAILS OF ECCS LICENSING ISSUES GE/NRC MEETING (6/19/80)

Attendees:

N. Lauben - NRC/RSB	R. H. Buchholz - GE
J. Guttman - NRC/RSB	A. S. Rao - GE
R. O. Meyers - NRC/CPB	N. S. Shirley - GE
R. F. Audette - NRC/RSB	J. A. Potts - GE
H. Balukjin - NRC/CPB	L. F. Rodriguez - GE
W. Hodges - NRC/RSB	

GESTR

GE reviewed the background behind the August 1978 GeSTR submittal in response to NRC concerns regarding fission gas release for burnup above 20,000 MWD/t. The features present in GESTR and the reasons why the GESTR model constitutes a better technical model than GEGAP with NRC correction factors were briefly discussed by G. A. Potts.

Ralph Meyers indicated that he expects to complete review of GESTR by early Fall 1980. The next set of questions will be made available by mid-July 1980.

LOCA Analysis Model and Amendments

GE provided the background behind the submittal of the LOCA analysis model and its seven outstanding amendments since early 1976. Reasons for NRC review and approval of these models were given, emphasizing the need for improved plant MAPLHGR limits to minimize operator actions, to increase plant operational flexibility and to eliminate plant power derates. In addition, the potential for reload submittals under 10CFR50.59 with increased MAPLHGR margin which reduces NRC workload was also stressed. In addition, brief descriptions of the individual amendments were provided, emphasizing the simplicity of the changes from the base model.

The NRC staff acknowledged that the base model, Amendment No. 1 (Modified Bromley) and the Amendment No. 2 (Single Loop Operation) were basically completed. The Safety Evaluation Report for Amendment No. 1 has already been drafted and it is undergoing internal review. Amendment Nos. 4 (CCFL Correlation) and No. 5 (Backflow Leakage) have not been started.

Ralph Meyers indicated that GE will be asked to include the new NRC fuel clad rupture model in our CHASTE model in the near future. He feels that GE should include the fuel clad rupture model in CHASTE at this time or provide justification of the adequacy of our present model. Since the new model will result in benefits for GE, he recommended that we include it in CHASTE.

The NRC staff committed to evaluate the amount of effort required to complete the review of Amendment Nos. 4 and 5 and to provide its schedule via letter to G. G. Sherwood by July 11, 1980. This commitment was made after a closed meeting between N. Lauben, Wayne Hodges, T. Spies, and P. Check in which they discussed the GE presentation.

ECCS Input Reverification Program

A. Rao discussed the purpose, criteria used, results and plant impact of the ECCS Reverification Program. Specific details of PCT and MAPLHGR changes were provided including the 300° PCT change for the BWR/6 small break region. Just a few clarification questions were asked during this part of the meeting. Hodges and Lauben expressed some concerns of the rationale for not using reverified ECCS inputs for new FSAR calculations performed since 1978. We informed them that our current plan was to continue using the previous decks until approval of GESTR on the LOCA models, and only at customer's request.

Core Spray Program

GE provided the status report of the core spray program and the future action plan to resolve the core spray methodology and its application issues. Wayne Hodges reiterated his objection to continued GE push to separate the methodology from the reactor application. He indicated that based on the information he has to date, he concludes that GE has not shown separability of the hydrodynamic and thermodynamic effects on nozzle spray. He also indicated that the information to date (BWR/6 and BWR/4 Lynn Data) may indicate inadequate flows in the BWR 4/5 reactor design, an issue that he may bring up during upcoming BWR 4/5 ACRS hearings. He also acknowledged the existence of other core cooling mechanisms provided by steam cooling and the pool of water in the upper plenum. He agreed to a meeting in FW 26 or the following week to address the remaining core spray methodology issues.