

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

May 29, 1992

MEMORANDUM FOR:

The Chairman

Commissioner Rogers Commissioner Curtiss Commissioner Remick Commissioner de Planque

FROM:

James M. Taylor

Executive Director for Operations

SUBJECTS:

MEETING OF GE NUCLEAR WITH COMMISSION ON JUNE 3, 1992 TURBINE BYPASS CAPABILITY IN THE ADVANCED BOILING WATER

REACTOR (ABWR)

1. Commission Meeting with GE Management

At 2:00 p.m. on June 3, 1992, the senior management of GE Nuclear (GE) will make a presentation to the Commission on the ABWR, an evolutionary boiling water reactor with a nuclear rating of 4005 Mwt. Enclosure 1 is a list of major features of this evolutionary design.

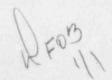
In September 1987, GE submitted to the Commission its initial application for certification for the ABWR design. This application consisted of 4 ch. pters of GE's standard safety analysis report with a plan to provide subsequent modular submittals. As time progressed, GE discontinued to submit modules, providing a complete SSAR with 20 chapters which has been officially amended 20 times throughout the review process. With this body of design information, the staff performed its review with a question stage followed by the issuing of draft safety evaluation reports (DSERs) from August 1989 through November 1991. The staff identified in the DSER over 300 open items, which are being resolved through a significant amount of communication between the two staffs.

The staff is scheduled to issue the final safety evaluation for the ABWR to the Commission by the end of August. Enclosure 2 lists the significant technical issues which remain open. The staff expects that some of these issues will remain as open items in the FSER. All of these issues require that GE provide additional submittals of which they are aware for the staff to make a safety finding. The last issue concerning diversity also requires Commission guidance prior to GE's development of new design information. The staff will solicit this guidance through a draft Commission policy paper scheduled to be provided to the Commission in June. Enclosure 3 is a list of the topics GE plans to discuss during the Commission meeting.

CONTACT: C. Poslusny, NRR 504-1132

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2. ABWR Turbine Bypass Capability

In the staff requirements memorandum of May 8, 1992, the Commission noted that during the April 21, 1992, briefing on the progress of design certification, the staff agreed to provide to the Commission information on the capability of full turbine bypass for the GE ABWR, and the Japanese ABWR designs.

In SSAR Section 10.4.4, GE stated that the design basis for the turbine bypass system includes the capacity to bypass 33 percent of the rated main steam flow to the main condenser. GE informed the staff that the Japanese ABWR design includes that same bypass capacity.

Original Signad Bys James M. Taylor

James M. Taylor Executive Director for Operations

Enclosures: cc: SECY As stated OGC DISTRIBUTION: NRC PDR Central File PDST R/F TMurley/FMiraglia WRussell. JMTaylor DCrutchfield WTravers RPierson JNWilson CPoslusny VMcCree SNinh PShea JSniezek JB1aha HThompson JMoore, 15B18 GGrant, EDO PMagnanelli BToms OPA OCA NRR Mailroom, #W9200108 EDO R/F JPartlow, 12618 FGillespie, 12618 EDO #9200108 OFC: PM:PDST:ADAR LA: PDST: ADAR (SEAPDST: ADAR *TECH EDITOR 05/24/P25 NAME: CPoslusny:tz PShea JNWilson. JMain DATE: 05/26/92 05/10/92 05/22/92 wT OFC: AD ADAR ABJ: NRR DIR: NAD EDO NAME DCrutchfield WRussel JMurley JMMaylor DATE: 05/2/92 054 29/92

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ADVANCED BWR TECHNOLOGY FEATURES

- REACTOR INTERNAL PUMPS
- FINE MOTION CONTROL ROD DRIVES
- ADVANCED PRESSURE SUPPRESSION CONTAINMENT
- MICRO PROCESSOR-BASED DIGITAL CONTROL AND LOGIC SYSTEMS
- DIGITAL SAFETY SYSTEMS
- PASSIVE SEVERE ACCIDENT MITIGATION

ABWR DESIGN CERTIFICATION REVIEW SIGNIFICANT OPEN ISSUES

- PRA INSIGHTS AND METHODOLOGY
- SEVERE ACCIDENT CLOSURE
- SHUTDOWN RISK
- INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA (ITAAC)
- PIPING DESIGN
- DIVERSITY OF INSTRUMENTATION AND CONTROL SYSTEMS

COMMISSION BRIEFING

WEDNESDAY 2:00 P.M.

JUNE 3, 1992

SPEAKERS

S.R. SPECKER, VICE-PRESIDENT, GE NUCLEAR ENERGY D.R. WILKINS, GEN. MGR, NUCLEAR SERVICES AND PROJECTS

OTHER ATTENDEES

P.W. MARRIOTT, MGR, REGULATORY AND ANALYSIS SERVICES J.F. QUIRK, PROGRAM MGR, ABWR CERTIFICATION PROGRAM

AGENDA

15 MIN. GE NUCLEAR ENERGY OBJECTIVES S.R. SPECKER 35 MIN. ABWR CERTIFICATION PROGRAM D. R. WILKINS

- OVERVIEW/STATUS
- ISSUES
- SCHEDULES

10 MIN. SBWR CERTIFICATION PROGRAM

D. R. WILKINS