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DCP/NRC0644 Rev. 1
Docket No.: STN-52-003

December 9, 1996

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

ATTENTION: T. R. QUAY
SUBJECT: REGULATORY TREATMENT OF NONSAFETY SYSTEMS (RTNSS) STATUS

References 1: NRC letter to Westinghouse, Crutchfield to Liparulo, "List of Key Licensing Issues on the AP600 Design," dated 3/21/95.

2: Westinghouse letter to NRC, McIntyre to Quay, "AP600 Passive System Reliability Roadmap," dated 8/9/96.

Dear Mr. Quay:

Revision 1 of this letter is issued to reflect completion of the focused PRA evaluation for subissue 2 and finalizing the date for the ASI telecon for subissue 3, and to include the Table referred to under subissue 6.

The simplified nature of the AP600 design results in a number of systems that are classified as safety-related in current plants being classified as nonsafety-related. While the licensing basis for the AP600 relies solely on these safety-related systems, the NRC has raised the issue of what, if any, additional regulatory oversight should be applied to these systems. The initial discussions on the regulatory treatment of nonsafety systems (RTNSS) were held between the NRC staff and the ALWR Utility Steering Committee in January, 1993. In May, 1993, agreement was reached between the NRC staff and the industry on the RTNSS resolution process, which included both probabilistic and deterministic evaluation criteria. In September, 1993, Westinghouse submitted a report, "AP600 Implementation of the Regulatory treatment of Nonsafety-Related Systems",WCAP-13856, that provided the results of the application of these criteria to the AP600. This submittal included proposed additional regulatory oversight to provide the staff with the high level of confidence that active systems would be available when challenged. As described in the agreed to approach, this proposed regulatory oversight was consistent with the identified systems reliability/availability mission.

The agreed to RTNSS resolution process was reviewed by the Commission in SECY-94-084, "Policy and Technical Issues Associated with the Regulatory Treatment of Nonsafety Systems in Passive Plant Designs", March 28, 1994. The SRM on SECY-94-084 was issued on June 30, 1994.

During a March 29, 1995 RTNSS meeting, the application of the RTNSS process to the normal RHR system was reviewed with the staff as a specific example of the implementation process.

During the February 9, 1995 Westinghouse/NRC AP600 Senior Management Meeting (SMM), several key subissues were identified and discussed which constitute the elements that require closure to complete implementation of the RTNSS process.

The attachment to this letter documents the status for each of the identified RTNSS subissues.

Implementation of the RTNSS resolution process is a key item with respect to completion of the AP600 FSER. It is therefore essential that this program be revitalized and given the attention it requires.

I will contact you prior to the Westinghouse/NRC senior management meeting on December 9 to discuss how to go forth on this issue so as to reach resolution in a time frame that supports our schedule.

Brian A. McIntyre, Manager
Advanced Plant Safety and Licensing

/nja
Attachment

cc: T. Martin, NRC/NRR
W. Huffman, NRC/NRR
N. Liparulo, Westinghouse (w/o attachment)

ATTACHMENT TO DCP/NRC0644

STATUS OF RTNSS KEY SUBISSUES

1. Thermal-hydraulic Uncertainty

We believe consensus was reached on a resolution path for acceptability of the baseline PRA, including passive system reliability and T&H uncertainty issues and that there is enough conservatism in the baseline PRA to offset the T&H uncertainty issues. Westinghouse submitted a passive system reliability roadmap by Reference 2 in response to an NRC request. Westinghouse has the action to benchmark MAAP4 against NOTRUMP and to complete the T&H Uncertainty Evaluation. There activities are included on the AP600 Design Certification Activity Schedule provided to the NRC.

2. NRC acceptance of the AP600 PRA

The final Focused PRA was submitted on September 30, 1996. The initiating event frequency evaluation was submitted on October 14, 1996 and the focused PRA RTNSS evaluation ~~is scheduled for transmittal~~ was sent on November 1, 1996. No additional RTNSS-important systems have been identified. It is an NRC action to document acceptability of the Focused PRA.

3. Adverse Systems Interactions

On October 3, 1996, the NRC provided review comments on WCAP 14477 the Adverse Systems Interactions, submitted in March of 1996. Westinghouse is addressing those comments in preparation for a resolution meeting with the NRC, ~~tentatively~~ scheduled for ~~the week of~~ December ~~12~~ 20, 1996.

4. Post-72 hour Actions

Post-72 hour actions is one of the policy issues before the Commission in SECY-96-128 and requires Commission action to go forth. This action is anticipated in the very near future.

Westinghouse has reviewed the proposed policy statement before the Commission and is prepared to rapidly move forth with whatever actions are necessary to address this issue once the Commission makes a decision on the SECY paper.

5. Safe shutdown

The safe stable condition for the AP600 is defined as hot standby since the passive RHR system is highly reliable and no single active failure can prevent its termination. However, the staff was concerned that a small earthquake can make the standby ac power supply unavailable and has not determined acceptability of this design.

As discussed during the January 1995 RTNSS meeting, the Westinghouse position is that seismic design and qualification is beyond the criteria agreed to in development of the RTNSS process. Thermal cycling issues resulting from passive system actuation during small seismic events (less than SSE) were also addressed. This issue is closed, with NRC agreement that no seismic criteria will be applied uniformly to RTNSS-important equipment but can be applied if that equipment performs a mission with seismic implications.

6. Additional oversight once RTNSS functions are identified beyond what is already provided, (SSAR review, D-RAP, ITAAC, maintenance rule, etc.).

WCAP-13856, provided proposed additional regulatory oversight for the systems identified as RTNSS inportant to provide the staff with the high level of confidence that active systems would be available when challenged. As described in the agreed on approach, this proposed regulatory oversight was consistent with the identified systems reliability/availability mission.

To assist the NRC with completion of their RTNSS-related activities for the AP600 FSER, Westinghouse has created the attached AP600 Regulatory Oversight table which shows what additional regulatory oversight is appropriate for RTNSS-important systems identified. Also included in this table to provide a proper perspective on regulatory oversight are the regulatory oversights applied to safety related, as well as RTNSS, DID, and other non-safety related systems and functions. If new RTNSS important systems are identified, the appropriate regulatory oversight will be established.

AP600 REGULATORY OVERSIGHT

Regulatory Oversight	Safety Related	RTNSS	Non-Safety Related - DID	Non-Safety Related-Other
Reporting:				
50.72/3 (Red Phone)	X			
License	X			
Tech Spec's	X			
10CFR21	X			
License Events Reports	X	X	X	X
License Commitments	X	X	X	X
Maintenance Rule	X	X	X	X
INPO Reports (SOER, SER, Etc.)	X	X	X	X
NRC Resident Reports	X	X	X	X
Documentation/ Commitments:				
SSAR Description	X	X	X	X
Administration Procedures	X	X	X	X
Appendix B QA Program	X			
QA Program - Graded		X	X	X
10CFR 52 Tier 1	X	X	X	
ITAAC	X	X	X	
SSAR Chapter 14 Testing	X	X	X	X
PRA	X	X	X	X
Design Features/ Requirements:				
Seismic 1	X			
Class 1E Power	X			
Industry Codes & Standards (Reg. Guides, NUREGs, IEEE, ASME, Etc.)	X	X	X	X
Inspections:				
Tours	X	X	X	X
NRC Inspection Teams	X	X	X	X

AP600 REGULATORY OVERSIGHT

Regulatory Oversight	Safety Related	RTNSS	Non-Safety Related - DID	Non-Safety Related-Other
SALP ratings	X	X	X	X
Availability Controls:				
Technical Specifications	X			
RTNSS Identified Administrative Controls		X		
Maintenance Rule	X	X	X	X