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Your ref: Project Number 740
Our ref: DCP/NRC2041

November 9, 2007

Subject: AP1000 COL Response to Requests for Additional Information (TR 127)

In support of Combined License application pre-application activities, Westinghouse is submitting a response to the NRC request for additional information (RAI) on AP1000 Standard Combined License Technical Report 127, APP-GW-GLN-127, "PCS Tier 1 Diagram Correction". This RAI response is submitted as part of the NuStart Bellefonte COL Project (NRC Project Number 740). The information included in the response is generic and is expected to apply to all COL applications referencing the AP1000 Design Certification.

A response is provided for RAI-TR127-SPCV-01 as finalized in a phone call between Don Lindgren, John Segala and Chris Jackson on October 29, 2007. These responses complete all requests received to date for Technical Report 127.

Pursuant to 10 CFR 50.30(b), the response to the request for additional information on Technical Report 127, is submitted as Enclosure 1 under the attached Oath of Affirmation.

Questions or requests for additional information related to the content and preparation of these responses should be directed to Westinghouse. Please send copies of such questions or requests to the prospective applicants for combined licenses referencing the AP1000 Design Certification. A representative for each applicant is included on the cc: list of this letter.

Very truly yours,

A. Sterdis, Manager
Licensing and Customer Interface
Regulatory Affairs and Standardization

D063
D079
NRO

/Attachment

1. "Oath of Affirmation," dated November 9, 2007

/Enclosure

1. Response to Requests for Additional Information on Technical Report No. 127

cc:	D. Jaffe	-	U.S. NRC	1E	1A
	E. McKenna	-	U.S. NRC	1E	1A
	G. Curtis	-	TVA	1E	1A
	P. Hastings	-	Duke Power	1E	1A
	C. Ionescu	-	Progress Energy	1E	1A
	A. Monroe	-	SCANA	1E	1A
	J. Wilkinson	-	Florida Power & Light	1E	1A
	C. Pierce	-	Southern Company	1E	1A
	E. Schmiech	-	Westinghouse	1E	1A
	G. Zinke	-	NuStart/Entergy	1E	1A
	R. Grumbir	-	NuStart	1E	1A
	A. Pfister	-	Westinghouse	1E	1A

ATTACHMENT 1

"Oath of Affirmation"

ATTACHMENT 1

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

In the Matter of:	)
NuStart Bellefonte COL Project	)
NRC Project Number 740	)

APPLICATION FOR REVIEW OF
"AP1000 GENERAL COMBINED LICENSE INFORMATION"
FOR COL APPLICATION PRE-APPLICATION REVIEW

W. E. Cummins, being duly sworn, states that he is Vice President, Regulatory Affairs & Standardization, for Westinghouse Electric Company; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission this document; that all statements made and matters set forth therein are true and correct to the best of his knowledge, information and belief.

W. E. Cummins
Vice President
Regulatory Affairs & Standardization

Subscribed and sworn to
before me this 9th day
of November 2007.

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Patricia S. Aston, Notary Public
Murrysville Boro, Westmoreland County
My Commission Expires July 11, 2011
Member, Pennsylvania Association of Notaries

Notary Public

ENCLOSURE 1

Response to Requests for Additional Information on Technical Report No. 127

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-TR127-SPCV-01
Revision: 0

Question:

What is the impact of the safety function of the PCS by the addition of the connections to the spent fuel pool and spray header? Is the connection to the PCCWST to the spent fuel pool safety related? If not, where is the system boundary? Are the two closed isolation valves safety related? If not, why not? How will the closed isolation valves be controlled? How will the spray system be controlled?

Westinghouse Response:

There is no safety impact on the Passive Containment Cooling System (PCS) by the addition of the spent fuel pool spray headers. A connection from the PCCWST to the spent fuel pool is included in the certified design shown in DCD Revision 15. The addition of the spent fuel pool spray headers created no additional connections to the PCCWST.

The connection from the PCCWST to the spent fuel pool is changed to a different, but previously existing, tank connection. This is shown on DCD Figure 6.2.2-1. The PCS makeup line to the spent fuel pool, L018, now stems from the PCS tank connection at line L011. Previously, Line L018 branched from PCS line L001A. The connection from the tank to the spent fuel pool remains a safety-related line as indicated on DCD Figure 6.2.2-1. The classification of the line has not changed. The line is classified as JBC piping. The third letter of the pipe designation C indicates that the piping is designated as ASME Class 3 piping.

The spent fuel pool makeup line has two normally closed safety related manual isolation valves, labeled as V009 and V051. These valves are on the spent fuel pool makeup line in the certified design shown in DCD Revision 15. Both of these valves are classified as JBC. The makeup function to the spent fuel pool from the PCCWST is not changed by the addition of the spent fuel pool spray headers.

The line to the spent fuel pool spray branches off the line that provides spent fuel pool makeup from the PCCWST. The Tier 2 DCD changes for the addition of the spray header connection to the PCS are identified and justified in APP-GW-GLN-019 (TR-103). The addition of the spent fuel pool spray header does not alter the safety design basis or operation of the passive containment cooling system. The addition of the spent fuel pool spray header does not adversely impact the design of the PCS. The evaluation and analysis of the response of the passive containment cooling system to postulated accidents and anticipated transient is not altered by the addition of the spent fuel pool spray header. The use of the spent fuel pool spray is not required to mitigate design basis postulated accidents. The use of the spent fuel pool spray is not anticipated during design basis postulated accidents.

There are two normally closed safety related manual isolation valves, V009 and V052, that are required to be opened for activation of the spent fuel pool spray header. This is shown on DCD Figure 6.2.2-1. Valve V009 is an existing valve on the spent fuel pool makeup line. Valve V052 is added as the isolation valve to the spent fuel pool spray header. Valve V052 provides the ASME Code Class boundary between the safety-related ASME Code, Section III Code Class 3 spent fuel pool makeup line and the nonsafety-related spent fuel pool spray header

The use and control of the spray system for beyond design basis events are covered by APP-GW-GLR-063 (TR 49) and APP-GW-GLR-068 (TR95), which are both classified as Safeguards Information. The basis and regulatory criteria for the spray system are addressed in these reports.

TR 127 states that the line leading from the PCCWST to the spent fuel pool has its own connection to the PCCWST. This statement suggests that a connection was added that is dedicated to the connection to the spent fuel pool makeup line. This is not the case. The connection to the PCCWST for spent fuel pool makeup line is an existing connection to a drain line for the PCCWST. This connection now serves an additional purpose. The statement in TR 127 is clarified below. Also, valve PCS-PL-052 needs to be added to Table 3.2-3 of the DCD, which details the classification of mechanical and fluid systems components and equipment.

Design Control Document (DCD) Revision:

TABLE 3.2-3 (SHEET 11 OF 65)

AP1000 CLASSIFICATION OF MECHANICAL AND FLUID SYSTEMS, COMPONENTS, AND EQUIPMENT

Tag Number	Description	AP1000 Class	Seismic Category	Principal Construction Code	Comments
Passive Containment Cooling System (Continued)					
PCS-PL-V040	Recirculation Pump Suction from PCCAWST Isolation Valve	D	NS	ANSI 16.34	Equipment Anchorage is Seismic Category II
PCS-PL-V041	PCCAWST Recirculation Return Line Isolation Valve	D	NS	ANSI 16.34	Equipment Anchorage is Seismic Category II
PCS-PL-V042	PCCWST Long-Term Makeup Isolation Drain Valve	C	I	ASME III-3	PCS-PL-V043
PCS-PL-V043	PCCAWST Recirculation Return Line Drain Isolation Valve	D	NS	ANSI 16.34	Equipment Anchorage is Seismic Category II
PCS-PL-V044	PCCWST Long-Term Makeup Isolation Valve	C	I	ASME III-3	
PCS-PL-V045	Emergency Makeup to the Spent Fuel Pool Isolation Valve	C	I	ASME III-3	
PCS-PL-V046	PCCWST Recirculation Return Isolation Valve	C	I	ASME III-3	
PCS-PL-V048	Recirculation Pump Fire Suction Isolation Valve	D	NS	ANSI 16.34	Seismically analyzed for operability
PCS-PL-V049	Emergency Makeup to the Spent Fuel Pool Drain Isolation Valve	C	I	ASME III-3	
PCS-PL-V050	Spent Fuel Pool Long Term Makeup Isolation Valve	C	I	ASME III-3	
PCS-PL-V051	Spent Fuel Pool Emergency Makeup Lower Isolation	C	I	ASME III-3	
PCS-PL-V052	*Spent Fuel Spray Isolation*	*C*	*I*	*ASME III-3*	

PRA Revision:
None

Technical Report (TR) Revision:

The following revision will be made to Section 2.0:

1. A National Academy of Sciences' report "Safety and Security of Commercial Spent Nuclear Fuel Storage: Public Report (2006)" expressed concerns about the ability of the spent fuel pool to be completely drained by a malicious act (beyond design basis accident). A design change was made to address this concern by providing a system with "spray" capability for the spent fuel. This capability uses either the passive containment cooling water storage tank inventory, or inventory from the fire protection system. Because of this change a line that used to branch off of a current PCS line was given its own penetration into the tank. The line leading from the PCCWST to the spent fuel pool (including valve V009) does not branch off of the standpipe in the tank. The line has ~~its own~~ *a different* connection to the tank.