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SUBJECT: Forwards addl clarifying info re Question 410.40 "High/Low Pressure Interface," per 850926 submittal re SRP Section 9.5.1, "Fire Protection Program." Summaries of analyses include RCS high/low interface.

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Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT
UNIT NO. 1 - DOCKET NO. 50-400

Dear Mr. Denton:

In a letter dated April 18, 1984 (Mr. G. W. Knighton to Mr. E. E. Utley), Carolina Power & Light Company (CP&L) was requested to provide some additional information regarding our submittals for compliance with Standard Review Plan Section 9.5.1 entitled, "Fire Protection Program."

The requested additional information was provided in a letter dated September 26, 1985 (Mr. S. R. Zimmerman to Mr. H. R. Denton, NLS-85-344). Following review of this submittal by your staff, CP&L was requested to provide some additional clarifying information concerning our response to Question 410.40 - High/Low Pressure Interface. Enclosed are summaries of our analyses performed for the following high/low interfaces:

1. Reactor Coolant System
2. Reactor Coolant Vent System
3. Regenerative Heat Exchanger Letdown Isolation System
4. RHR Suction Isolation Valves

The enclosed summaries should provide the necessary information to complete your review of our response to Question 410.40.

Should you have further questions on the subject or require additional information, please contact Mr. Patrick P. Carier (919/836-8165).

Yours very truly,

S. R. Zimmerman
Manager
Nuclear Licensing Section

PPC/ccc (3082PPC)

Enclosures

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SUMMARIES OF ANALYSES FOR:

1. REACTOR COOLANT SYSTEM
2. REACTOR COOLANT VENT SYSTEM
3. REGENERATIVE HEAT EXCHANGER LETDOWN ISOLATION SYSTEM
4. RHR SUCTION ISOLATION VALVES

HIGH-LOW INTERFACE
REACTOR COOLANT SYSTEM
SUMMARY OF ANALYSIS

FIRE AREA	PORV 1RC-P527SN (SSD-1) VS BLOCK 1RC-V526SN (SSD-2)	PORV 1RC-P528SN (SSD-1) VS BLOCK 1RC-V527SN (SSD-2)	PORV 1RC-P529SN (SSD-2) VS BLOCK 1RC-V528SN (SSD-1)
FAASGA (1-A-SWGRA)	1. Block Valve will be used 2. Cable 10160P is an alarm cable & not required to close the valve. An in-line fuse is added to the circuit in the Aux. Transfer Panel B (Located in Cable Spreading Room B) so that any fault to the cable will not disable the controls of the valve. 3. The other block valve cables are not in this area (Separated by 3 HR fire barriers)	1. Block will be used 2. Cable 10161J is an alarm cable and not required to close the valve. An in-line fuse is added to the circuit in the Aux. Transfer panel-B (Located in Cable Spreading Room B) so that any short to the cable will not disable the controls of the valve. 3. The other block valve cables are not in this area (separated by 3 HR fire barriers)	1. PORV 1RC-P529SN will fail close on loss of power. Valve is fed from panel DP-1A-2 which is located in SWGR "B" Room and fed from a panel in SWGR "A" Room. 2. Other PORV Cables are not in this area (separated by 3HR fire barriers
FAASGB (1-A-SWGRB)	1. PORV will be used 2. PORV cables in conduit are protected with 3 HR protective envelopes from block valve cables	1. PORV will be used 2. PORV cables in conduit are protected with 3 HR protective envelopes from the block valve cables.	1. Block valve will be used 2. The block valve cables are not in this area (separated by 3 HR fire barriers)
FAACSA (1-A-CSRA)	1. PORV will be used. 2. PORV cables are not in this area (separated by 3 HR fire barriers)	1. PORV will be used. 2. PORV cables are not in this area (separated by 3 HR fire barriers)	1. PORV will be used. 2. All PORV cables are protected with 1 HR protective envelopes and over head supression system

HIGH-LOW INTERFACE
REACTOR COOLANT SYSTEM
SUMMARY OF ANALYSIS

FIRE AREA	PORV 1RC-P527SN (SSD-1) VS Block 1RC-V526SN (SSD-2)	PORV 1RC-P528SN (SSD-1) VS Block 1RC-V527SN (SSD-2)	PORV 1RC-P529SN (SSD-2) VS Block 1RC-V528SN (SSD-1)
FAACSB (1-A-CSRB)	1. PORV will be used 2. PORV Cables are protected with 1 HR protective envelopes and suppression system	1. PORV will be used 2. PORV cables are protected with 1 HR protective envelopes and suppression system	1. PORV will be used 2. PORV Cables are protected with 1 HR protective envelopes and suppression system
FAAEPA (1-A-EPA)	1. Cables 14443A, C to battery chargers may be damaged. (Chargers are in SWGR A Room). PORV will fail-close, on loss power.	1. Cables 14443A, C to battery chargers may be damaged. (Chargers are in SWGR A Room). PORV will fail-close, on loss of power.	1. Cables 14443A, C to battery chargers may be damaged (Chargers are in SWGR "A" Room). PORV will fail-close, on loss of power.
FAAEPB (1-A-EPB)	1. PORV will be used 2. PORV cables are not in this area (separated by 3 HR fire barriers)	1. PORV will be used 2. PORV cables are not in this area separated by 3 HR fire barriers)	1. PORV will be used 2. PORV cables are not in this area (separated by 3 HR fire barriers)

[illegible]

HIGH-LOW INTERFACE
REACTOR COOLANT SYSTEM
SUMMARY OF ANALYSIS

FIRE AREA	PORV 1RC-P527SN (SSD-1) VS Block 1RC-V526SN (SSD-2)	PORV 1RC-P528SN (SSD-1) VS Block 1RC-V527SN (SSD-2)	PORV 1RC-P529SN (SSD-2) VS Block 1RC-V528SN (SSD-1)
FAAACP (1-A-ACP)	1. PORV will be used 2. Cable 10157J to ACP is located in this area but not required to control the valve from the Main Control Room. There will be no spurious operation as the circuit is normally disconnected at Transfer Panel A (Located in SWGR "A" Room).	1. PORV will be used. 2. Cable 10158J to ACP is located in this area but not required to control the valve from Main Control Room. There will be no spurious operations as the circuit is normally disconnected at Transfer Panel A (Located in SWGR "A" Room).	1. PORV will be used 2. Cable 10156J to ACP is located in this area but not required to control the valve from the Main Control Room. There will be no spurious operations as the circuit is normally disconnected at Transfer Panel B (Located in SWGR "B" Room)
FAABA3 FAABA4 (1-A-BAL-A)	1. Block valve will be used. 2. Block Valve Cables 10160A, C are protected with 1 HR protective envelopes and supression system	1. Block valve will be used. 2. Block Valve Cables 10161A,C are protected with 1 HR protective envelopes and suppression system	1. Block valve will be used. 2. Block valve cables are not in this area (separated by 3 HR - fire barriers)

HIGH-LOW INTERFACE
REACTOR COOLANT SYSTEM
SUMMARY OF ANALYSIS

FIRE AREA	PORV 1RC-P527SN (SSD-1) VS Block 1RC-V526SN (SSD-2)	PORV 1RC-P528SN (SSD-1) VS Block 1RC-V527SN (SSD-2)	PORV 1RC-P529SN (SSD-2) VS Block 1RC-V528SN (SSD-1)
FAABB4 FAABB5 (1-A-BAL-B) Northside	1. Block Valve will be used 2. Cable 10160H to ACP is located in this area but not required for closing the valve from Main Control Room. There will be no spurious operation as the circuit is normally disconnected at the Aux. Transfer Panel B (located Room). 3. Power Cables required are protected with 1 HR protective envelopes and suppression system.	1. Block Valve will be used. 2. Cable 10161H to ACP is located in this area, but not required for closing the valve from Main Control Room. There will be no spurious operation as circuit is normally disconnected at Aux. Transfer Panel B (Located in the Cable Spreading Room B) 3. The other block valve cables are not in this area (separated by 3 HR wall barriers)	1. PORV will be used. 2. PORV Cable 10156J to ACP is located in this area but not required for closing the valve from Main Control Room. There will be no spurious operation as the circuit is normally disconnected at the Transfer Panel B (Located in the SWGR "B" Room) 3. Power cables to the valve are on the southside, which is more than 20' from the block valve cables, and the Diesel Gen. 1A-SA cables 11701A, B, C are protected within a 1HR protective envelopes and suppression system.

HIGH-LOW INTERFACE
REACTOR COOLANT SYSTEM
SUMMARY OF ANALYSIS

FIRE AREA	PORV 1RC-P527SN (SSD-1) VS Block 1RC-V526SN (SSD-2)	PORV 1RC-P528SN (SSD-1) VS Block 1RC-V527SN (SSD-2)	PORV 1RC-P529SN (SSD-2) VS Block 1RC-V528SN (SSD-1)
Southside	1. Same as above	1. Same as above	1. PORV will be used. 2. PORV will fail close on loss of power.
FAABC5 (1-A-BAL-C)	1. PORV will be used. 2. PORV Cables 10157F, K are protected with 3 HR protective envelopes from block valve cables.	1. PORV will be used. 2. PORV Cables 10158F, K are protected with 3 HR protective envelopes from block valve cables.	1. PORV will be used. 2. PORV Cable 10156J to ACP is located in this area but not required for closing the valve from Main Control Room. There will be no spurious operation as the circuit is normally disconnected at the Transfer Panel B (Located in the SWGR "B" Room)
FCA-RCB (1-C)	1. Cable 10157B from penetration to valve cannot cause spurious opening of valve since cable is routed in dedicated conduit.	1. Cable 10158B from penetration to valve cannot cause spurious opening of valve since cable is routed in dedicated conduit	1. Cable 10156B from penetration to valve cannot cause spurious opening of valve since cable is routed in dedicated conduit

[illegible]

HIGH-LOW INTERFACE
REACTOR COOLANT SYSTEM
SUMMARY OF ANALYSIS

FIRE AREA	PORV 1RC-P527SN (SSD-1) VS Block 1RC-V526SN (SSD-2)	PORV 1RC-P528SN (SSD-1) VS Block 1RC-V527SN (SSD-2)	PORV 1RC-P529SN (SSD-2) VS Block 1RC-V528SN (SSD-1)
FCACRC FCACRM (12-A-CRC1) (12-A-CR)	1. Both PORV and Block Valve will be controlled from ACP	1. Both PORV and Block Valve will be controlled from ACP	1. Both PORV and Block Valve will be controlled from ACP

Piping downstream of the PORV is designed to withstand pressure transients associated with opening of these valves. Inadvertant opening the valves has been analyzed in the SHNPP FSAR Chapter 15.6.

HIGH-LOW INTERFACE
REACTOR COOLANT VENT SYSTEM
SUMMARY OF ANALYSIS

FIRE AREA	2RC-V280SB (SSD-1) 2RC-V281SA (SSD-1) 2RC-V282SB (SSD-1) 2RC-V283SA (SSD-1)	Vs	2RC-V284SA (SSD-2) & 2RC-V285SB (SSD-2)

FAASGA (1-A-SWGRA)	1.	Cables to valves 2RC-V285SB are not routed through this area (separated by 3 HR fire barriers)..
	2.	On loss of power, valve 2RC-V284SA will fail close. Cable (10137B) is in a dedicated conduit and will not cause spurious opening of the valve.
FAASGB (1-A-SWGRB)	1.	On loss of power, valve 2RC-V285SB will fail close. There will be no spurious operation as these power cables are 3 phase power cables.
	2.	Cable 10137B to valve 2RC-V284SA is protected with 3 HR protective envelope. All other cables to the valve are not in this area (separated by 3 HR fire barriers).

HIGH-LOW INTERFACE
REACTOR COOLANT VENT SYSTEM
SUMMARY OF ANALYSIS

FIRE AREA	2RC-V280SB (SSD-1) 2RC-V281SA (SSD-1) 2RC-V282SB (SSD-1) 2RC-V283SA (SSD-1)	Vs	2RC-V284SA (SSD-2) & 2RC-V285SB (SSD-2)
FAACSA (1-A-CSRA)	Cables 10134B,C, 10136B,C, 10133C, 10135C to valves 2RC-V281SA, 2RC-V283SA, 2RC-V280SB and 2RC-V282SB respectively are protected with 1 HR. protective envelopes and suppression system. Power cable 11481A is not protected but will not cause spurious opening of the valve.		
FAACSB (1-A-CSRB)	1. Cables for valves 2RC-V281SA and 2RC-V283SA are not in this area (separated by 3 HR fire barriers). 2. Cables 10133B,C to valve 2RC-V280SB and cables 10135B, C to valve 2RC-V282SB are protected in conduit with 1 HR. protective envelope and suppression system. 3. Power cable 11481C to valve 2RC-V282SB are not protected but will not cause spurious opening of the valve.		

HIGH-LOW INTERFACE
REACTOR COOLANT VENT SYSTEM
SUMMARY OF ANALYSIS

FAAEPA	2RC-V280SB (SSD-1) 2RC-V281SA (SSD-1) 2RC-V282SB (SSD-1) 2RC-V283SA (SSD-1)	Vs	2RC-V284SA (SSD-2) & 2RC-V285SB (SSD-2)

FAAEPA (1-A-EPA)	1.	Cables to valve 2RC-V285SB are not in this area (separated by 3 HR fire barriers).
	2.	Cable 10137B for valve 2RC-V284SA is protected with 1 HR protective envelope and suppression system.
	3.	Cable 10847A (power) for valve 2RC-V284SA will not cause spurious opening of the valve.
	4.	On loss of power, valve 2RC-V284SA will fail close.
FAAEPB (1-A-EPB)	1.	Cables to valve 2RC-V284SA are not in this area (separated by 3 HR fire barriers).
	2.	Cable 10138B to valve 2RC-V285SB is protected with 1 HR protective envelope and suppression, so that valve 2RC-V285SB is available.
FACRCB (1-C)	1.	Cable 10137A to valve 2RC-V284SA is routed in a dedicated conduit. There will be no spurious opening of the valve.
	2.	Cable 10138A to valve 2RC-V285SB is routed in a dedicated conduit. There will be no spurious opening of the valve.

HIGH-LOW INTERFACE
REACTOR COOLANT VENT SYSTEM
SUMMARY OF ANALYSIS

FIRE AREA	2RC-V280SB (SSD-1) 2RC-V281SA (SSD-1) 2RC-V282SB (SSD-1) 2RC-V283SA (SSD-1)	Vs	2RC-V284SA (SSD-2) & 2RC-V285SB (SSD-2)

FCACRM FCACRC (12-A-CR) (12-A-CRC1)	Controls to valves 2RC-V284SA and 2RC-V285SB will be available from the alternate shutdown locations (Aux. Transfer Panel A and B in Cable Spreading Rooms A and B) after the transfer from the Main Control Room.

The piping design for the vent system utilizes 3/4" piping at the reactor coolant interface for the pressurizer and a flow restrictor in the reactor head vent system to ensure that the discharge from the charging pump will adequately make-up for any loss in the system.

FAAACP (1-A-ACP)	Cables to valves 2RC-V284SA and 2RC-V285SB are not in this area (separated by 3 HR fire barriers).

FAABC5
(1-A-BAL-C)

1. Cables to valve 2RC-V284SA are not in this area (separated by 3 HR fire barriers).

2. Cable 10138B to valve 2RC-V285SB is protected with 3 HR protective envelope. Other power cables in this area are not protected but will not cause spurious opening of the valve. On loss of power, the valve will fail close.

[illegible]

HIGH-LOW INTERFACE
REACTOR COOLANT VENT SYSTEM
SUMMARY OF ANALYSIS

FIRE AREA	2RC-V280SB (SSD-1) 2RC-V281SA (SSD-1) 2RC-V282SB (SSD-1) 2RC-V283SA (SSD-1)	Vs	2RC-V284SA (SSD-2) & 2RC-V285SB (SSD-2)

FAABB4
FAABB5

1. Cables to valve 2RC-V285SB are protected with 1 HR protective envelope and suppression.

(1-A-BAL-B)
NORTHSIDE

2. Cables to valve 2RC-V284SA are more than 20' away and on the south side of col. 27 on El. 261'-0 and El. 286'-0. Intermediate tray runs have fire-breaks installed. Hence controls for the valve will be available to close (Cable 10137B is in a dedicated conduit and protected with 3 HR protective envelope).

SOUTHSIDE

1. Cables to valve 2RC-V285SB are protected with 1 HR protective envelope and suppression .

2. Cable 10137B is in a dedicated conduit and protected with 3 HR protective envelope. Cable will not cause spurious opening of the valve 2RC-V284SA

3. The remaining RC vent cables in the area are power cables and will not cause spurious action. Valve 2RC-V284SA will fail close.

[illegible]

HIGH-LOW INTERFACE
REGENERATIVE HEAT EXCHANGER LETDOWN ISOLATION SYSTEM
SUMMARY OF ANALYSIS

FIRE AREA	2CS-V511SA (SSD-1) 2CS-V512SA (SSD-1) 2CS-V513SA (SSD-1)	VS 1CS-L500 SN (SSD-2)
FAASGA (1-A-SWGRA)	Valve 1CS-L500 SN will fail close on loss of power to Aux. Transfer Panel B, which is located in Cable Spreading Room B.	
FAASGB (1-A-SWGRB)	Valves 2CS-V511SA, 2CS-V512SA, 2CS-V513SA are available. Cables for these valves are not routed through this fire area (separated by 3 HR fire barriers).	
FAACSA	Valve 1CS-L500SN will fail close on loss of power to Aux. Transfer Panel B which is located (1-A-CSRA) in Cable Spreading Room B. Cable 10251H to ACP is located in this area but will not cause spurious opening of the valve as the circuit is disconnected at the Aux Transfer Panel "B".	
FAACSB (1-A-CSRB)	Valves 2CS-V511SA, 2CS-V512SA, 2CS-V513SA are available. Cables for these valves are not routed through this fire area (separated by 3 HR fire barriers).	
FAABC5 (1-A-BAL-C)	Cables for valves 2CS-511SA, 2CS-V512SA, 2CS-V513SA are not routed through this fire area (separated by 3 HR fire barrier).	

HIGH-LOW INTERFACE
REGENERATIVE HEAT EXCHANGER LETDOWN ISOLATION SYSTEM
SUMMARY OF ANALYSIS

FIRE AREA	2CS-V511SA (SSD-1) 2CS-V512SA (SSD-1) Vs 1CS-L500SN (SSD-2) 2CS-V513SA (SSD-1)
FACRCB (1-C)	On loss of power valve 1CS-L500SN will fail close. Cable will not cause spurious action as it is routed in a dedicated conduit.
FCACR1 (12-A-CRC1) FCACRM (12-A-CRC1)	Controls to the valves will be available from the ACP after the 'transfer' from the Main Control Room.

The design of the CVCS system includes pressure reducing orifices and relief valves downstream of the Regenerative Heat Exchanger. These devices prevent overpressurization of the low pressure portions of this system should the isolation valves experience spurious actuation prior to transfer. Furthermore the letdown portion of this system is not required for Safe Shutdown at Shearon Harris Nuclear Plant.

FAAEPA (1-A-EPA)	Valve 1CS-L500SN will fail close on loss of power cables to the chargers. Cables will not cause spurious actions (power cables)
FAAEPB (1-A-EPB)	Cables for valves 2CS-V511SA, 2CS-V512SA, 2CS-V513SA are not in this fire area (separated by 3 HR fire barriers).
FAAACP (1-A-ACP)	Cables to ACP are not required to control the valves from the Main Control Room. All the valves will be available and the cables in this area will not cause spurious action as they are disconnected at the Transfer Panels.

[illegible]

HIGH-LOW INTERFACE
REGENERATIVE HEAT EXCHANGER LETDOWN ISOLATION SYSTEM
SUMMARY OF ANALYSIS

FIRE AREA	2CS-V511SA (SSD-1) 2CS-V512SA (SSD-1) Vs 1CS-L500 SN (SSD-2) 2CS-V513SA (SSD-1)

FAABB4
FAABB5
(1-A-BAL-B)

NORTHSIDE — Valve 1CS-L500SN will be available to isolate as the power cables to the valve are on the south side of El. 261'-0 RAB

SOUTHSIDE — Valve 1CS-L500SN will fail close on loss of the power cables to the chargers. Cables will not cause spurious actions (power cables).

HIGH-LOW INTERFACE
RHR SUCTION ISOLATION VALVES
SUMMARY OF ANALYSIS

FIRE AREA	1RH-V500SB (SSD-2) Vs 1RH-V501SA (SSD-2)	1RH-V502SB (SSD-1) Vs 1RH-V503SA (SSD-1)
FAASGA (1-A-SWGRA)	Isolation valve 1RH-V500SB will be available as none of the cables for this valve are routed through this area. (separated by 3 HR fire barriers).	Isolation valve 1RH-V502SB will be available as none of the primary power source or control cables to the valve are routed through this area (separated by 3 HR fire barriers).
FAASGB (1-A-SWGRB)	Isolation valve 1RH-V501SA will be available as none of the primary power source cables or any control cables to the valve are routed through this area (separated by 3 HR fire barriers).	Isolation valve 1 RH-V503 SA will be available as none of the primary power source or control cables are routed through this area (separated by 3 HR fire barriers).
FAAEPA (1-A-EPA)	Isolation valve 1RH-V500SB will be available as none of the cables are routed through this area (separated by 3 HR fire barriers).	Isolation valve 1RH-V502 SB will be available as none of the primary power source or control cables are routed through this area (separated 3HR fire barriers).

[illegible]

[illegible]

[illegible]

[illegible]

HIGH-LOW INTERFACE
RHR SUCTION ISOLATION VALVES
SUMMARY OF ANALYSIS

FIRE AREA	1RH-V500SB (SSD-2) Vs 1RH-V501SA (SSD-2)	1RH-V502SB (SSD-1) Vs 1RH-V503SA (SSD-1)
FAAEPB (1-A-EPB)	Isolation valve 1RH-V501 will be available as none of the primary power source or control cables are routed through this area (separated by 3HR fire barriers).	Isolation valve 1RH-V503SA will be available as none of the cables are routed through this area (separated by 3 HR fire barriers).
FACRCB (1-C)	1. Power & control cables to isolation valve 1RH-V501SA are routed in dedicated conduits. Valve will be used. 2. On loss of 3-phase power cable, the valve will remain closed. The control cable will not cause any spurious operations.	1. Power & control cables to isolation valve 1RH-502SB are routed in dedicated conduits. Valve will be used. 2. On loss of 3-phase power cable, the valve will remain closed. The control cable will not cause any spurious operations.
FAACSB (1-A-CSRB)	Isolation valve 1RH-V501SA will be available as none of the primary power source or control cables are routed through this area (separated by 3 HR fire barriers).	Isolation valve 1RH-V503SA will be available as none of the primary power source or control cables are routed through this area (separated by 3 HR fire barriers).

[illegible]

HIGH-LOW INTERFACE
RHR SUCTION ISOLATION VALVES
SUMMARY OF ANALYSIS

FIRE AREA	1RH-V500SB (SSD-2) Vs 1RH-V501SA (SSD-2)	1RH-V502SB (SSD-1) Vs 1RH-V503SA (SSD-1)
FAACSA (1-A-CSRA)	Isolation valve 1RH-V500SB will be available as none of the primary power source or control cables are routed through this area (separated by 3 HR fire barriers).	Isolation valve 1RH-V502SB will be available as none of the primary power source or control cables are routed through this area (separated by 3 HR fire barriers).
FAABA1 FAABA2 FAABA3 (1-A-BAL-A)	1. Both isolation valves will be available to isolate. 2. Cables in this area are not protected. They perform an interlock function only and will not cause spurious opening of the valves. 3. No other isolation valve cables are in this area (separated by 3 HR fire barriers).	1. Both isolation valves will be available to isolate. 2. Cables in this area are not protected. They perform an interlock function only and will not cause spurious opening of the valves. 3. No other isolation valve cables are in this area (separated by 3 HR fire barriers).

HIGH-LOW INTERFACE
RHR SUCTION ISOLATION VALVES
SUMMARY OF ANALYSIS

FIRE AREA	1RH-V500SB (SSD-2) Vs 1RH-V501SA (SSD-2)	1RH-V502SB (SSD-1) Vs 1RH-V503SA (SSD-1)
FAABB4 FAABB5 (1A-BAL-B)	Isolation valve 1RH-V500SB will be available as the primary power source cables and the control cables are protected with 1 HR protective envelopes and suppression system.	Isolation valve 1RH-V502SB will be available as the primary power source cables and the control cables are protected with 1 HR protective envelopes and and suppression system.
FAABC5 (1-A-BAL-C)	Isolation valve 1RH-V501SA will be available as none of the primary source cables or control cables to the valve are routed through this area (separated by 3 HR fire barriers).	Isolation valve 1RH-V503SA will be available as none of the primary power source or control cables to the valve are routed through this area (separated by 3 HR fire barriers).

HIGH-LOW INTERFACE
RHR SUCTION ISOLATION VALVES
SUMMARY OF ANALYSIS

FIRE AREA	1RH-V500SB (SSD-2) Vs 1RH-V501SA (SSD-2)	1RH-V502SB (SSD-1) Vs 1RH-V503SA (SSD-1)
FCACRM (12-A-CR) FCACRC (12-A-CRC1)	Both isolation valves will be available and controlled from the ACP after the 'transfer' from the main control room.	Both isolation valves will be available and controlled from the ACP after the 'transfer' from the main control room.

Spurious operation of these valves is prevented prior to transfer by the location of a pressure interlock (< 430 psig) in the Solid State Protection Cabinets. This interlock and it's related cabling is located in a separate fire area bounded by a 3-hour fire barrier from the control switches in the Control Room Fire Area.

FAAACP (1A-ACP)	1. Both isolation valves will be available to isolate from the main control room.	1. Both isolation valves will be available to isolate from the main control room.
	2. Cables to ACP in this area are not required to control the valves and will not cause spurious action as they are normally disconnected at the transfer panel.	2. Cables to ACP in this area are not required to control the valves and will not cause suprious action as they are normally disconnected at the transfer panel.