

ENCLOSURE 1 - INFORMATION ON SYSTEMS CAPABILITY AND TRANSIENT CORE COOLING

General System Design Information	Shutdown Condenser System
- Are the instruments and equipment affected by containment flooding (Yes/No)?	Yes. Condensate Return Valve Position Indication will be lost.
- Normal position of valves, indication location, direct or indirect indications.	All automatic valves except 62-25-018 (Shutdown Condenser Drain Trap Isolation) are normally closed. There is direct position indication on all
- Failed state of each valve	All automatic valves except 62-25-018 (Shutdown Condenser Drain Trap Isolation), 62-25-018 (Demineralized Water Header Isolation), and 62-25-003
- Power sources required for system operation (including support systems).	None. Valves open on de-energization and low air pressure. Support Systems: Demin. Water - TB MCC1A HPSW - Diesel Driven
- Number of safety and relief valves, relieving capacity, cycling capability (number of times without air supply). Are there alternate air supplies?	None
- Relief and safety valve setpoints.	None
- System trips.	None
- Are auxiliary systems required for operation? (Yes/No) If yes, what are they?	Yes. 1) Demin Water, or 2) High Pressure Service Water to provide heat transfer medium for Shutdown Condenser.
	<p>* valves. There is direct position indication in the control room for 62-25-001 and 62-25-011 (Condensate Steam Inlet Valves), 62-25-002 (Shutdown Condenser Drain Trap Isolation), 62-25-012 (Shutdown Condenser Condensate Auto Valves) and 62-25-017 (Off-Gas Vent Automatic Valve) (See Attachment A).</p> <p>** (Off-Gas Vent Automatic Valve) open. Valves 62-25-017, 62-25-018 and 62-25-003 fail closed.</p>

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	High Pressure Core Spray System	Low Pressure Core Spray System
ition	No	No
-017 ola- is *	Valves 53-25-002, 53-25-003, and 53-25-008 are normally open. Valve 53-25-004 is normally closed. These valves have local direct position indication and have direct*	Valve 53-25-001 is normally closed. Valve 53-25-001 has local direct position indication and has direct position indication in the control room. (See Attachment B).
-017 ola- water *	Valves 53-25-002, 53-25-003, and 53-25-008 fail open. Valve 53-25-004 fails closed.	Valve 53-25-001 fails open.
ng	1A and 1B Essential Buses. (See Attachment 1)	120V A-C Non-Interruptible Bus
	Two. One on each pump discharge 50 GPM @ 1450# @ 100°F water temperature. NA. Spring loaded, self-actuated.	None
	1450 PSIG	NA
	None	None
Pres- at	No	No
ition for nser and Con- -003 .	* position indication in the control room. (See Attachment B).	
fail -018		

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System Activation	Shutdown Condenser System
<p>- Automatic startup logic (initiation signals) and power source (AC/DC).</p>	<p>1) Reactor Pressure High (1325) CH1 or 2 2) Reactor Bldg. Steam Isolation Valve not full open; or 3) Turbine Bldg. Steam Iso Valve not full open; through relays power 120V AC; from non-Interruptible bus to v operating solenoids powered by 125V DC. systems de-energize to operate.</p>
<p>- Auto initiation built-in time delay (Yes/No)? If yes, what is time required?</p>	<p>Yes. Condensate Return Valves 62-25-002 012 open 10 seconds after Steam Inlet va 62-25-001 and 011. Off-Gas Vent closes 2 minutes later.</p>
<p>- Can manual initiation of the system be done in the control Room? (Yes/No) If no, what actions are required and how long will they take?</p>	<p>Yes</p>
<p>- Do ECCS initiation signals override all other modes of operation? (Yes/No) If no, identify.</p>	<p>NA (System not affected by ECCS)</p>
<p>- Are actions performed by the operator for system operation and control after initiation of the system? (Yes/No) If yes, explain (up to 2 hours)?</p>	<p>No</p>
<p>- Are there system interlocks and diversion for systems in Table I? (Yes/No) If yes, explain.</p>	<p>No</p>

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	High Pressure Core Spray System	Low Pressure Core Spray System
or ation ed by lve All	-12" Reactor Water Level on any of three level channels. 5 PSIG Containment Building pressure on either of two pressure switches. AC	-12" Reactor water level on any of three level channels and less than 30# DP between containment building and reactor vessel. AC
and ves	No	No
	Yes	No. Manually open the valve 3 minutes.
	No. Initiation of Boron Injection System diverts HPCS Pumps discharge to the recirculation loops. The Boron Injection System can only be initiated manually from the Control Room.	Yes
	No	No
	Yes. HPCS can be diverted by Initiation of the Boron Injection System. The Boron Injection System can only be Initiated manually from the Control Room.	No

ENCLOSURE 1 - INFORMATION ON SYSTEMS CAPABILITY AND TRANSIENT CORE COOLING

General System Design Information	Alternate Core Spray System (Low Press. Coolant Injection System)
- Are the instruments and equipment affected by containment flooding (Yes/No)?	No
- Normal position of valves, indication location, direct or indirect indications.	Motor operated valves 38-30-001 and 38-30-002 are normally closed. They have direct local position indication on motor operated valves** (See Attachment)
- Failed state of each valve	The motor operated valves fail as indicated
- Power sources required for system operation (including support systems).	1 Valve controlled by Rx Plant 125 VAC or 1 Valve controlled by 120 VAC Two diesel driven pumps
- Number of safety and relief valves, relieving capacity, cycling capability (number of times without air supply). Are there alternate air supplies?	<ol style="list-style-type: none"> 1. One 150 psi relief valve on discharge of each of 2 diesel driven pumps 2. One header relief valve set at 200 psi relieving capacity 303 gpm. 3. One header relief valve located at auto valves set at 1400 psi.
- Relief and safety valve setpoints.	150 psi, 200 psi and 1400 psi
- System trips.	Diesel Engine Overspeed
- Are auxiliary systems required for operation? (Yes/No) If yes, what are they?	No
	<p>* All relief valves for system protection items referring to air not applicable</p> <p>** and direct position indication for these valves in the Control Room.</p>

ROLE OF PROVIDING POST-ACCIDENT

	Manual Depressurization System	Safety/Relief Valves
n)	No	No
re is the vent C.)	62-25-013 and 62-25-014 (Reactor Emergency Flooding Vent Valves) are normally closed. There is direct local position indication on valves 62-25-013 and 62-25-014 and direct position indication for these *	Closed There is direct position indication in the Control Room for each relief valve.
.	62-25-013 and 62-25-014 fail open on loss of N ₂ and fail closed on loss of control power.	N/A
VDC	120 VAC non-interruptible 125 VDC Rx Plant Battery Systems de-energize to activate	None
arge t. 00 psi fter	N/A	3 1390=: 296×10^3 =/hr, 1426=: 302×10^3 =/hr unlimited - self-actuated spring loaded N/A
	N/A	One relief is set at 1390= Two reliefs are set at 1426=
	N/A	None
	Yes Nitrogen System to valves Loss of pressure opens valves.	No
ction ble. 1	* valves in the Control Room. (See Attachment A.)	