

PSEG Nuclear LLC

Job Performance Measure

Transfer To Hot Leg Recirculation

JPM Number: 21-01 NRC Sim-b

Revision Number: 03

Date: 7/26/22

Developed By:	<u>K. Hantho</u> Instructor	Date:	<u>7/26/22</u>
Validated By:	<u>Westlake/Militti</u> SME or Instructor	Date:	<u>8/19/22</u>
Reviewed By:	<u>M. Winkelspecht</u> Operations Representative	Date:	<u>11/29/22</u>
Approved By:	<u>M. Wadusky</u> Training Department (Print/Sign)	Date:	<u>11/29/22</u>

REVISION RECORD (Summary)

Revision Number	Date	Reason
03	7/26/22	Update and validate to new JPM format.

SIMULATOR SETUP INSTUCTIONS

- **RESET simulator to IC-251 and VERIFY the below events on the Instructor Station.**
- Salem Unit 2 is shutdown.
- No major equipment are out of service and no Tech Specs are active.
- The following malfunctions, overrides, and remotes were required to develop this IC.

MALF ID #	Description	Delay Time	Initial Value	Ramp Time	Trigger	Severity
01	RC0001A, RCS rupture of RC loop 21	N/A	N/A	N/A	N/A	TRUE
02	SJ0062B, 22 SI pump trip	N/A	N/A	N/A	N/A	TRUE
03	Rh0026a 21 RHR PUMP TRIP	N/A	N/A	N/A	N/A	TRUE
ID# OVRD or REMT	Description	Delay Time	Initial Value	Ramp Time	Trigger	Condition/Severity
01	RH26D, 21 RHR pump breaker control power					OFF
02	RH27D, 21 RHR pump rack out					TAGGED
ET#	Description	Command				
none						

SPECIAL INSTRUCTIONS

1. Place Bezel cover on 21 RHR pump as C/T

INITIAL CONDITIONS

- You are the **incoming** crew.
- Unit 2 experienced a Large Break LOCA.
- The previous crew completed the actions to transfer to Cold Leg Recirculation IAW EOP-LOCA-3 and have transitioned back to EOP-LOCA-1.
- 22 SI pump tripped following completion of LOCA-3 and is being investigated.
- 21 RHR pump is C/T for scheduled maintenance prior to the event.

INITIATING CUE

- You are the **Reactor Operator**.
- The CRS has directed you to **IMPLEMENT** 2-EOP-LOCA-4, TRANSFER TO HOT LEG RECIRCULATION.
- Your evaluator will respond to all alarms not related to your task.

TASK STANDARD:

The task is satisfactorily met when the applicant has aligned the plant for Hot leg Recirculation IAW Steps 4 and 8 of 2-EOP-LOCA-4

Information for Evaluators Use:

UNSAT requires written comments on the respective step.

(*) Denotes critical steps

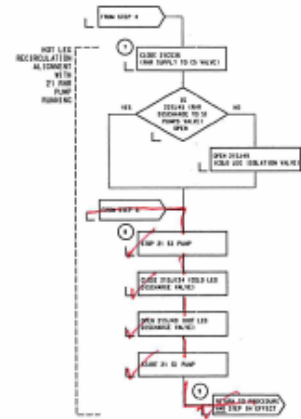
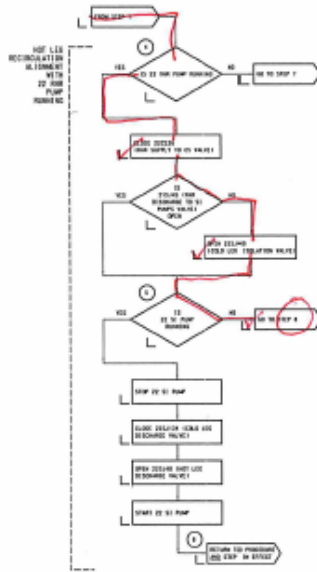
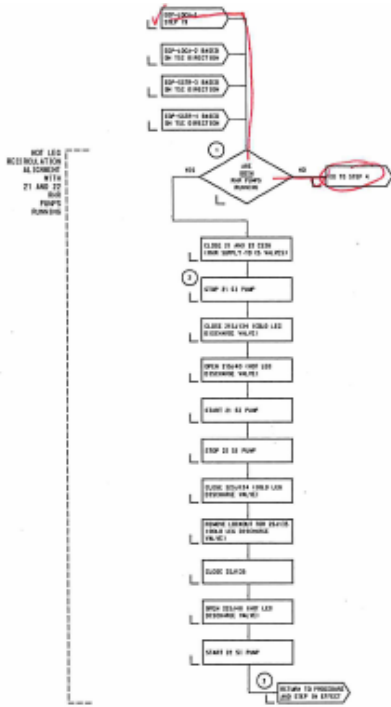
If Time Critical, estimated time is the Time Critical time.

The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The time clock starts when the candidate acknowledges the initiating cue.

ANSWER KEY:



RECORD JPM Start Time: _____

STEP	CRITICAL	ELEMENT	STANDARD	GRADE (S/U)
N/A		RECORD the JPM Start Time when the operator acknowledges READY TO START JPM.		N/A

Cue: Provide candidate sheet of 2-EOP-LOCA-4.

Examiners Note: None

Comments:

LOCA-4		ARE BOTH RHR PUMPS RUNNING?	Determines that ONLY 22 RHR Pump is running. (21 RHR pump is C/T)	
1.0			GOES TO Step 4.	

Cue:

Examiners Note:

Comments:

4.0		IS 22 RHR Pump Running	YES, determines that 22 RHR Pump is running.	
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Cue:

Examiners Note:

Comments:

STEP	CRITICAL	ELEMENT	STANDARD	GRADE (S/U)
4.0 Cont'd	*	CLOSE 22CS36 (RHR SUPPLY TO CS VALVE)	Operator depresses CLOSE PB for 22CS36 (RHR SUPPLY TO CS VALVE) and verifies CLOSE PB illuminates.	

Cue:

Examiners Note:

Comments:

4.0 Cont'd		IS 21SJ45 (RHR DISCHARGE TO SI PUMPS VALVE) OPEN	NO. Verifies 21SJ45 closed	
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Cue:

Examiners Note:

Comments:

4.0 Cont'd	*	OPEN 22SJ49 (COLD LEG ISOLATION VALVE)	Operator depresses OPEN PB for 22SJ49 (COLD LEG ISOLATION VALVE) and verifies OPEN PB illuminates.	
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Cue:

Examiners Note:

Comments:

ALTERNATE PATH STARTS HERE

5.0		IS 22 SI Pump Running	NO, Verifies 22 SI pump tripped GOES TO Step 8.	
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Cue:

Examiners Note:

Comments:

STEP	CRITICAL	ELEMENT	STANDARD	GRADE (S/U)
8.0	*	STOP 21 SI Pump	Operator depresses 21 SI Pump STOP PB on 2CC1 and verifies STOP PB illuminates.	
<p>Cue:</p> <p>Examiners Note:</p> <p><u>Comments:</u></p>				
8.0 Cont'd	*	CLOSE 21SJ134 (Cold Leg Discharge Valve)	Operator depresses CLOSE PB for 21SJ134 (Cold Leg Discharge Valve) on 2CC1 and verifies CLOSE PB illuminates.	
<p>Cue:</p> <p>Examiners Note:</p> <p><u>Comments:</u></p>				
8.0 Cont'd	*	OPEN 21SJ40 (Hot Leg Discharge Valve)	Operator Opens 21SJ40 (Hot Leg Discharge Valve) by <u>inserting key</u> and <u>rotating</u> ; verifies OPEN PB illuminates.	
<p>Cue:</p> <p>Examiners Note:</p> <p><u>Comments:</u></p>				

STEP	CRITICAL	ELEMENT	STANDARD	GRADE (S/U)
8.0 Cont'd	*	START 21 SI Pump	Operator depresses START PB for 21 SI Pump and verifies START PB illuminates.	
Cue: Examiners Note: <u>Comments:</u>				
Terminating Cue	JPM COMPLETE			

RECORD JPM Stop Time: _____

Operator's Name: _____ **Job Title:** RO _____ SRO _____

Facility: Salem **JPM No.:** 21-01 NRC Sim-b **Revision No.:** 03

Task Title: Transfer To Hot Leg Recirculation

Task No.: 1150110501 **Source:**
Bank New _____ Mod _____

System: 006 Emergency Core Cooling System (SF2)

K/A Number / Description: A4.05 Ability to manually operate and/or monitor in the control room: Transfer of ECCS flowpaths

K/A Rating RO 4.1 SRO N/A

Task Applicability: SRO Only _____ RO/SRO AO/RO/SRO _____ Other _____

Time-Critical: Yes _____ No **Alternate Path:** Yes No _____

Estimated Time to Complete: 6 Minutes

Actual Time Used: _____ Minutes

Method of Testing: Simulated Performance _____ Actual Performance

Location: Classroom _____ Simulator In-Plant _____ RCA _____

Required Materials: 2-EOP-LOCA-4

Reference(s): 2-EOP-LOCA-4

EVALUATION SUMMARY:

Were all the Critical Elements (steps) performed satisfactorily? Yes _____ No _____

The operator's performance was evaluated against the standards contained in this JPM, and has been determined to be: Satisfactory _____ Unsatisfactory _____

Comments:

Evaluator's Name: _____

Evaluator's Signature: _____ **Date:** _____

STUDENT HANDOUT

INITIAL CONDITIONS

- You are the **incoming** crew.
- Unit 2 experienced a Large Break LOCA.
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INITIATING CUE

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