

# PSEG Nuclear LLC

## Job Performance Measure

### Establish FW flow IAW EOP-FRHS 1 using a Condensate Pump

JPM Number: NRC SIM-e

Revision Number: 01

Date: 01/10/23

**Developed By:** R. Chan **Date:** 1/10/23  
Instructor

**Validated By:** E. Gallagher **Date:** 1/10/23  
SME or Instructor

**Reviewed By:** M. Winkelspecht **Date:** 1/19/23  
Operations Representative

**Approved By:** M. Wadusky **Date:** 1/19/23  
Training Department (Print/Sign)

## REVISION RECORD (Summary)

<b>Revision Number</b>	<b>Date</b>	<b>Reason</b>
00	8/19/22	New JPM
01	1/10/23	Incorporated NRC comments, Added examiners note on pg. 9 and modified estimated JPM time to 15 minutes on pg. 12.

**JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

**NOTE**

All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 11 below.

- EG 1. Task description and number, JPM description and number are identified.
- EG 2. Knowledge and Abilities (K/A) references are included.
- EG 3. Performance location specified. (in-plant, control room, or simulator)
- EG 4. Initial setup conditions are identified.
- EG 5. Initiating and terminating cues are properly identified.
- EG 6. Task standards identified and verified by SME review.
- EG 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*)
- EG 8. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure(s) 2-EOP-FRHS-1 rev 42 Date Checked: 11/21/22
- EG 9. Pilot test the JPM:
  - a. Verify cues both verbal and visual are free of conflict, and
  - b. Ensure performance time is accurate.
- NA 10. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- NA 11. When JPM is revalidated, SME or instructor sign and date JPM cover page

Ed Gallagher 11/21/22  
SME/Instructor Date

SME/Instructor Date

SME/Instructor Date

## SIMULATOR SETUP INSTUCTIONS

### 1. IC-254

#### Malfunctions

<b>MALF ID #</b>	<b>Description</b>	<b>Delay Time</b>	<b>Initial Value</b>	<b>Ramp Time</b>	<b>Trigger</b>	<b>Severity</b>
BF0105A	21 STM Gen Feed Pump trip	N/A	N/A	N/A	N/A	TRUE
BF0105A	22 STM Gen Feed Pump trip	N/A	N/A	N/A	N/A	TRUE
AF0183 AF0181A &B	21-23 AFW pump trips	N/A	N/A	N/A	N/A	TRUE

#### Remotes

<b>ID #</b>	<b>Description</b>	<b>Delay Time</b>	<b>Initial Value</b>	<b>Ramp Time</b>	<b>Trigger</b>	<b>Condition/Severity</b>
BF01A through BF08A	21 through 24 BF19s and 40s	N/A	-1	30s	RT-1 through 8	100

## SPECIAL INSTRUCTIONS

### 1. FRHS-1 EOP

### **INITIAL CONDITIONS**

- Salem Unit 2 is in Mode 3.
- No SGFP's or AFW pumps are available.
- Actions are being implemented IAW 2-EOP-FRHS-1.
- The crew has completed actions through step 7.1

### **INITIATING CUE**

- CRS directs you to continue performing actions of 2-EOP-FRHS-1 at Note 7-2

**TASK STANDARD:**

The task is satisfactorily met when the applicant has selected and depressurized a steam generator using the steam dumps IAW step 7.3 and 7.4 of 2-EOP-FRHS-1, established flow with a condensate pump and places steam dumps in auto to stabilize pressure less than 575 psig, IAW continuous action step 7.2 of 2-EOP-FRHS-1.

\*\*\*\*\*

**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.

RECORD JPM Start Time: \_\_\_\_\_

STEP	CRITICAL	ELEMENT	STANDARD	GRADE (S/U)
Note 7-2		21 AND 23 SGS SHOULD BE STEAMED LAST TO MAXIMIZE AVAILABILITY OF A STEAM SUPPLY FOR 23 AFW PP	Candidate should pick 22 or 24 to depressurize	

Cue:

Examiners Note:

Comments:

Note 7-3		THE FOLLOWING STEPS MAY RESULT IN A LOW STEAMLIN DIFF PRESS SI	Acknowledge note	
-------------	--	--	------------------	--

Cue:

Examiners Note:

Comments:

7.2		WHEN SELECTED SG PRESSURE IS LESS THAN 575 PSIG AND SELECTED SG WIDE RANGE LEVEL IS RISING.  THEN STABILIZE SELECTED SG IS LESS THAN 575 PSIG.	Reads CAS	
-----	--	--	-----------	--

Cue:

Examiners Note:

Comments:

STEP	CRITICAL	ELEMENT	STANDARD	GRADE (S/U)
7.2 Contd		SELECT ONLY ONE SG FOR DEPRESSURIZATION TO LESS THAN 575 PSIG	Chooses 22 or 24	
<p>Cue:</p> <p>Examiners Note:</p> <p><u>Comments:</u></p>				
7.3		ARE CONDENSER STEAM DUMPS AVAILABLE	Should answer yes path	
<p>Cue:</p> <p>Examiners Note:</p> <p><u>Comments:</u></p>				
7.3 contd	*	ACTUATE MAIN STEAM ISOLATION FOR ALL LOOPS EXCEPT SELECTED SG	Actuate MSLI for 21&23 and 22or 24 MS Lines	
<p>Cue:</p> <p>Examiners Note:</p> <p><u>Comments:</u></p>				
7.3 contd	*	PLACE STEAM DUMPS IN MANUAL		
<p>Cue:</p> <p>Examiners Note:</p> <p><u>Comments:</u></p>				

STEP	CRITICAL	ELEMENT	STANDARD	GRADE (S/U)
7.3 contd		ADJUST STEAM PRESSURE VALVE DEMAND TO 0%		
<p>Cue:</p> <p>Examiners Note:</p> <p><u>Comments:</u></p>				
7.3 contd	*	PLACE STEAM DUMPS IN MS PRESS CONTROL		
<p>Cue:</p> <p>Examiners Note: Should be at 0 valve demand for MS pressure control</p> <p><u>Comments:</u></p>				
7.4	*	WHEN RCS TAVG LOW LOW IS REACHED THEN DEPRESS BYPASS TAVG PUSHBUTTON	Bypasses if/when reqd	
<p>Cue:</p> <p>Examiners Note:</p> <p><u>Comments:</u></p>				
7.4 contd	*	ADJUST STEAM PRESSURE VALVE DEMAND TO ESTABLISH MAX RATE	Adjusts to at least 25%	
<p>Cue:</p> <p>Examiners Note: The PO could adjust the steam dump demand to above 25% until Tavg lowers to less than 543 F (P-12) and steam dumps close, then after Tavg is Bypassed, only the Group 1 cooldown dump valves will be available which will limit the depressurization rate to less than 25% steam dump demand.</p> <p><u>Comments:</u></p>				

STEP	CRITICAL	ELEMENT	STANDARD	GRADE (S/U)
------	----------	---------	----------	-------------

7.4 contd	*	SEND OPERATOR TO OPEN SELECTED BF40 Main Feed Bypass Valve	Dispatches operator	
--------------	---	---	---------------------	--

Cue: when asked tell candidates operator being dispatched

Examiners Note: Insert RT for valve selected

Comments:

7.4 contd	*	OPEN SELECTED BF13 Feed Water Isolation Valve	Opens BF13 Feed Water Isolation Valve	
--------------	---	--	---------------------------------------	--

Cue:

Examiners Note:

Comments:

7.4 contd		Is selected BF13 Feed Water Isolation Valve OPEN	Will be yes but if they do not push button properly may dispatch operator if reqd.	
--------------	--	---	--	--

Cue:

Examiners Note:

Comments:

7.4 contd		Release selected BF22 Feed Line Stop Check valve	Verifies open	
--------------	--	---	---------------	--

Cue:

Examiners Note:

Comments:

7.4 contd		Open 21 and 22 CN48 Feed Pump Bypass valves	Opens valves	
--------------	--	---	--------------	--

Cue:

Examiners Note:

Comments:

7.4 contd		Close 21&22CN32 Feed Pump Suction Valves	Performs this task	
--------------	--	--	--------------------	--

Cue:

Examiners Note:

Comments:

7.5	*	IS CONDENSATE FLOW ESTABLISHED TO ANY SG	When <b>YES AND WR LEVEL IS RISING</b> then Steam dumps should be placed in auto	
-----	---	--	--	--

Cue: Once Steam dumps in auto and WR level rising state JPM complete.

Examiners Note:

Comments:

**RECORD JPM Stop Time:** \_\_\_\_\_

**Operator's Name:** \_\_\_\_\_ **Job Title:** RO \_\_\_\_\_ SRO \_\_\_\_\_

**Facility:** Salem **JPM No.:** NRC SIM-e **Revision No.:** 01

**Task Title:** Establish FW flow IN FRHS using Condensate pump

**Task No.:** N1150290501

**System:** Radiation Control

**K/A Number / Description:** 041 Ability to manually operate and/or monitor in the control room:  
A4.02 Steam dump cooldown valves

**K/A Rating** RO 3.6 SRO 3.6

**Task Applicability:** SRO Only \_\_\_\_\_ RO/SRO X AO/RO/SRO \_\_\_\_\_ Other \_\_\_\_\_

**Time-Critical:** Yes \_\_\_\_\_ No X **Alternate Path:** Yes \_\_\_\_\_ No X

**Estimated Time to Complete:** 15 Minutes

<b>Actual Time Used:</b> _____ Minutes
--

**Method of Testing:** Simulated Performance \_\_\_\_\_ Actual Performance X

**Location:** Classroom \_\_\_\_\_ Simulator X In-Plant \_\_\_\_\_

**Required Materials:** EOP-FRHS-1

**Reference(s):** EOP-FRHS-1

**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**

- Salem Unit 2 is in Mode 3.
- No SGFP's or AFW pumps are available.
- Actions are being implemented IAW 2-EOP-FRHS-1.
- The crew has completed actions through step 7.1

### **INITIATING CUE**

- CRS directs you to continue performing actions of 2-EOP-FRHS-1 at Note 7.2