Exelon Nuclear

Job Performance Measure

Pressurize the Main Steam Lines

JPM Number: 2014 ILT NRC JPM c

Revision Number: 00

Date: 10/15/2013

Developed By:	Instructor	Date
Validated By:	SME or Instructor	Date
Reviewed By:	Operations Representative	Date
Approved By:	Training Department	Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

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 9 and 13 below.

_____ 1. Task description and number, JPM description and number are identified.

_____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

_____ 6. Task standards identified and verified by SME review.

_____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 8. If an alternate path is used, the task standard contains criteria for successful completion.

_____ 9. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure QCOP 0250-01 Rev: 12
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 10. Verify cues both verbal and visual are free of conflict.

_____ 11. Verify performance time is accurate

_____ 12. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 13. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

SME / Instructor	Date
SME / Instructor	Date
SME / Instructor	Date

Revision Record (Summary)

Revision 00, Renamed 2014 ILT NRC JPM c. Restarted numbering accordingly.

Previous changes were:

This JPM is developed IAW guidelines established in NUREG 1021 Rev 9 ES-301 and Appendix C. This JPM meets the criteria of Category B.1 "Control Room Systems," for RO/SRO candidates.

Bank JPM LS-009-II Rev. 11 was used as the basis for this JPM, which was revised to reflect procedure and JPM template changes for the 2009 ILT NRC licensing exam.

This JPM was also revised to start at a lower power, and more stable, initial condition to facilitate the performance of the other JPMs in the set.

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC 18.
2. Go to run

NOTE: It is okay to use a similar IC to the IC listed above, provided the IC actually used is verified to be compatible with this and other JPMs that are scheduled to be run concurrently.

Setup Instructions – Enter/perform the following commands and actions

3. **Malfunctions: (contained in caep file "C caep.cae")**

   Cause a group 1(2 commands)|00:00:00|01
   imf rp05a|00:00:02|02
   imf rp05b|00:00:04|03
   Remove Group 1 signals|00:00:00|04
   dmf rp05a|00:00:06|05
   dmf rp05b|00:00:08|06

   - **Do NOT reset the Group 1 Isolation during QCGP 2-3 actions.**
   - Manually Scram the reactor and perform scram actions IAW QCGP 2-3 as necessary to stabilize the plant.
   - Monitor RPV Level and Pressure throughout:
     - RPV pressure will rise very slowly at approximately 2 psig / minute.
     - RPV Level will rise slowly due to heating up the post-scram water. This results in the RFPs tripping several minutes into the JPM (and possibly again when the MSIVs are reopened).
     - When the Feed Pump trips, restart the Feed Pump.
4. **Remotes/Overrides:** NONE
5. Verify the following control panel lineups:
   - The Main Steam Line Drain Valves are CLOSED.
   - All Turbine Bypass Valves are CLOSED.
   - On the <CONTROL> <RX COOLDOWN> screen, verify REACTOR COOLDOWN is OFF.
6. Verify that a blank current revision of QCOP 0250-01 "PRESSURIZING THE MAIN STEAM LINES", is available
7. Snap the setup to Zero when all other conditions for concurrently run JPMs are established.
8. Place AO 1-4723 in "Man Open" (901-4 panel)

JPM C QCOP 0250-01, Rev 012, Pl


C caep.cae

9. This completes the setup for this JPM.

INITIAL CONDITIONS

- You are the Unit 1 ANSO.

  A spurious Group I Isolation occurred approximately 30 minutes ago.
- Reactor water level has been maintained <100" by Feed/Condensate.
- An extra reactor operator will control pressure between 800 and 1000 psig with relief valves.
- A Shift Supervisor is standing by to provide the necessary verifications.
- Group 1 isolation signals do NOT need to be bypassed.
- This JPM is NOT time critical.

INITIATING CUE

Pressurize the Main Steam lines and re-open the MSIV's per QCOP 0250-01 "PRESSURIZING THE MAIN STEAM LINES".

Notify the Unit Supervisor when the MSIVs are open.

{When candidate acknowledges the cue, provide the candidate with the procedure QCOP 0250-01}

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* * Denotes critical steps.
* • Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the examinee had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

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 timeclock starts when the candidate acknowledges the initiating cue.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*F.1.	•**Place** MN STM ISOL RESET to INBD. •	Places MN STM ISOL RESET switch on the 901-5 panel to INBD position.	___	___	___
*F.2.	•**Place** MN STM ISOL RESET to OUTBD. •	Places MN STM ISOL RESET switch on the 901-5 panel to OUTBD position.	___	___	___
*F.3	•At the DEHC Operator's Workstation, on the <CONTROL> <PRESSURE CONTROL> screen, **adjust** DEHC Pressure Set 200 psig above reactor pressure **OR** as high as possible. •	Pressure Set adjusted to at least 200 psig above reactor pressure. • Select STPT/RAMP • Enter desired value for Set Point and a desired value for Ramp. Select OK to enter values. • Select OK to confirm values or CANCEL to abort changes	___	___	___
EVALUATOR NOTE: In steps F.4 and F.5, the candidate may open two valves simultaneously. **The student may also perform F.5 prior to F.4 (allowed by procedure)**					
*F.4.	•**Open** Outboard MSIVs: •	On Panel 901-3 , C/S for: AO 1-203-2A taken to OPEN; Valve indicates OPEN. AO 1-203-2B taken to OPEN; Valve indicates OPEN. AO 1-203-2C taken to OPEN; Valve indicates OPEN. AO 1-203-2D taken to OPEN; Valve indicates OPEN.	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*F.5.	•**Open** Steam Line drain valves: •	On Panel 901-3 , C/S for: MO 1-220-90A taken to OPEN; Valve indicates open MO 1-220-90B taken to OPEN; Valve indicates open MO 1-220-90C taken to OPEN; Valve indicates open MO 1-220-90D taken to OPEN; Valve indicates open	___	___	___
*F.6.	•**Equalize** pressure across MSIVs•	On Panel 901-3 , C/S for: MO 1-220-1 taken to OPEN; Valve indicates open. MO 1-220-2 taken to OPEN; Valve indicates open. MO 1-220-3 throttled OPEN; Valve indicates open or mid position	___	___	___
F.7.	**Monitor** differential pressure across the MSIVs.	Verifies Differential Pressure is decreasing using: a. Reactor Pressure b. PI 1-3040-10, TURB THROT PRESS (at panel 901-7)	___	___	___
EVALUATORS : Steps F.7.a (1), (2), and (3) are applicable only if the THROTTLE PRESS MED (XMITTER X) FAILED LOW alarm was received.					
F.7.a	Checks DEHC for diagnostic Alarm: “THROTTLE PRESS MED (XMITTER X) FAILED LOW”	DEHC checked for Diagnostic Alarms	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
F.7.a(1)	Verify each Throttle Pressure Transmitter indicates an increasing trend	From the <AUX> <XMITTER RESET> SCREEN: Increasing trends on Throttle Pressure Transmitters verified.	___	___	___
F.7.a(2)	If necessary, RESET THROTTLE #X for each Throttle Pressure transmitter that indicates FAILED.	From the <AUX> <XMITTER RESET> SCREEN: Selects RESET for each failed transmitter and selects OK to confirm each reset.	___	___	___
F.7.a(3)	Verify each Throttle Pressure transmitter alarm indicates a NORMAL state and clear alarms by selecting ACK ALL	From the ALARMS screen, verifies each Throttle Pressure alarm indicates a “NORMAL” state and clears all alarms by selecting ACK ALL.	___	___	___
EVALUATORS : Steps F.7.a (4)&(5) are not applicable because all transmitter alarms will reset.					
EVALUATORS : Step F.8. is not applicable because the differential pressure across the MSIVs will decrease to <200 psig.					
CUE:	**If asked, grant permission to open the Inboard MSIVs.**				

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
EVALUATOR NOTE: The candidate may open <u>two</u> valves simultaneously to avoid a possible Group I isolation on high Main Steam Line flow rates.					
*F.9.	•**<u>WHEN</u>** diff. press. across the MSIVs is <200 psid, **<u>OR</u>** has stopped decreasing and Unit Supervisor has given permission to proceed, **<u>THEN</u> open** inboard MSIVs: •	On Panel 901-3, C/S for: AO 1-203-1A taken to OPEN; Valve indicates OPEN. AO 1-203-1B taken to OPEN; Valve indicates OPEN. AO 1-203-1C taken to OPEN; Valve indicates OPEN. AO 1-203-1D taken to OPEN; Valve indicates OPEN.	___	___	___
EVALUATOR NOTE: The candidate should inform you that the MSIV's are open.					
CUE:	**Another NSO will complete the remaining procedure steps.**				

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____ **Job Title**: ☐ EO ☐ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Pressurize The Main Steam Lines

JPM Number: 2014 ILT NRC JPM c Revision Number: 00

Task Number and Title: Pressurize the Main Steam Lines

SR-0250-P01 (Freq: LIC=B) Given a reactor plant at power when an inadvertent Group 1 isolation occurs, determine the cause, reset the Group 1 and re-open the MSIVs in accordance with QCOP 0250-01.

K/A Number and Importance: **K/A:** 239001 A4.01 **Rating:** 4.2/4.0

Ability to manually operate and/or monitor in the control room: MSIV's

Suggested Testing Environment: Simulator

Alternate Path: ☐ Yes ☒ No SRO Only: ☐ Yes ☒ No Time Critical: ☐ Yes ☒ No

Reference(s): QCOP 0250-01, Rev. 12, PRESSURIZING THE MAIN STEAM LINES

Actual Testing Environment: ☒ Simulator ☐ Control Room ☐ In-Plant ☐ Other

Testing Method: ☐ Simulate ☒ Perform

Estimated Time to Complete: 17 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

The operator's performance was evaluated against standards contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

Comments: _____

Evaluator's Name: _____ (Print)

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

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INITIAL CONDITIONS

- You are the Unit 1 ANSO.

  A spurious Group I Isolation occurred approximately 30 minutes ago.
- Reactor water level has been maintained <100” by Feed/Condensate.
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- A Shift Supervisor is standing by to provide the necessary verifications.
- Group 1 isolation signals do NOT need to be bypassed.
- This JPM is NOT time critical.

INITIATING CUE

Pressurize the Main Steam lines and re-open the MSIV's per QCOP 0250-01 “PRESSURIZING THE MAIN STEAM LINES”.

Notify the Unit Supervisor when the MSIVs are open.