Exelon Nuclear

Job Performance Measure

Perform Post Maintenance Test of the Fuel Pool Radiation Monitor

JPM Number: 2014 ILT NRC JPM g

Revision Number: <u>00</u>

Date: <u>10/18/13</u>

Developed By: _____   _____
                              Instructor   Date

Validated By: _____   _____
                            SME or Instructor   Date

Reviewed By: _____   _____
                      Operations Representative   Date

Approved By: _____   _____
                          Training Department   Date

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 1700-06 Rev: 7
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 to 2014 ILT NRC JPM g. Restarted numbering accordingly.

Previous changes were

Revision 00,   This JPM was developed for ILT NRC Exam 03-01 IAW NUREG 1021, Rev 9.

Revision 01,   This JPM was updated for the 2011 ILT Cert Exam.

SIMULATOR SETUP INSTRUCTIONS

1) **RESET** simulator to IC 21 (or any other IC).

NOTE: IF the IC listed above is not available, OR it is desired to perform this JPM alone, it is okay to use a different IC than one listed above, provided the IC actually used is verified to be compatible with this and other JPMs scheduled to be run concurrently.

---

2) Go to **RUN**.

3) Insert the following commands:
   (These commands contained in the CAEP file: g caep.cae)

   - **ior lorm1170516a2 off** (Override the HIGH light on the 1A Fuel Pool Rad Monitor so that it will NOT illuminate when tested)
   - **ior dirm1170516asw2 reset** (Override the 1A Fuel Pool Rad Monitor in the RESET state)

4) Provide a copy of QCOP 1700-06 with Prerequisites signed off.

5) Verify the Fuel Pool Rad Monitor, 1-1705-16A, potentiometer is full counter-clockwise.

6) Obtain a key for the Fuel Pool Rad Monitor bypass switch (PA235 or PA2235)

7) When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs using the JPM Validation Checklist.

8) This completes the setup for this JPM.

JPM G QCOP
1700-06, Rev 007, Fl   G caep.cae

INITIAL CONDITIONS

- You are the Unit 1 ANSO.

- Three days ago the 1-1705-16A, FUEL POOL RAD MONITOR was declared inoperable due to a faulty connector.

- IM's have completed repairs, and request that it be tested to verify proper operation.

- The US has granted permission to perform the testing.

- You have a key to bypass the Fuel Pool Rad Monitor

INITIATING CUE

Perform QCOP 1700-06 to verify proper operation of Fuel Pool Rad Monitor 1-1705-16A.

{When candidate acknowledges the cue, provide the candidate with the procedure QCOP 1700-06 and the bypass switch key}

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	Bypasses the A Fuel Pool Rad Monitor and verifies appropriate alarm lit.	Inserts key into 1-1701-313, FUEL POOL RAD MON CH A BYPASS SWITCH and positions it to BYPASS. Verifies alarm 901-3 F-2, PROC RAD MON CALIB BYPASS RB FUEL POOL VENT alarm lit.	___	___	___
CUE:	**Tell the candidate that annunciator 901-3 F-2 is in alarm.**				
EVALUATOR NOTE: The candidate should hold the TRIP CHECK pushbutton referenced in the step until released in step F.6.					
*F.2	•Depresses the trip check.•	Depresses and holds the TRIP CHECK pushbutton on the 1-1705-16A.	___	___	___
F.3	Lowers Trip Check Adjust knob.	At power supply 1-1705-7A, turns the TRIP CHECK ADJUST knob fully counterclockwise.	___	___	___
NOTE: In the following step, the candidate may stop after reaching 100 mr OR may continue to full scale. Either is acceptable. The high lamp will NOT light due to the inserted fault.					
*F.4	•Checks the high trip setpoint.•	At power supply 1-1705-7A, turns the TRIP CHECK ADJUST knob clockwise until the HIGH lamp is lit on the 1-1705-16A.	___	___	___
*F.4	•Recognizes failure to trip.•	Recognizes high trip light was not received at less than 100 mr/hr.	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
CUE:	IF the candidate reports the failure to trip to the US, respond. "I understand…*(repeat back what was reported*). "Complete the procedure. I will have another Operator write the IR."				
EVALUATOR NOTE: The candidate may skip the following step since the high trip has failed and the monitor remains inoperable. This should not constitute a failure.					
F.5	Checks low trip setpoint.	At power supply 1-1705-7A, turns the TRIP CHECK ADJUST knob counterclockwise until the LOW lamp is lit on the 1-1705-16A and verifies receipt of alarm 901-3 C-16, FUEL POOL CHANNEL A DOWNSCALE.	___	___	___
CUE:	Tell the candidate that annunciator 901-3 C-16 is in alarm.				
F.6	Resets the trip unit.	Releases the TRIP CHECK pushbutton and depresses RESET on the 1-1705-16A.	___	___	___
F.7	Verifies trip lights clear.	Verifies HIGH and LOW lamps not lit on the 1-1705-16A.	___	___	___
F.8	Verifies alarms clear.	At panel 901-3, verifies alarm C-16 not lit.	___	___	___
CUE:	Tell the candidate that annunciator 901-3 C-16 is clear.				
F.9	Takes the A Fuel Pool Rad Monitor out of bypass and verifies alarm clear.	Places the 1-1701-312, FUEL POOL RAD MON CH A BYPASS SWITCH to NORM. Verifies alarm 901-3 F-2 not lit.	___	___	___
CUE:	Tell the candidate that annunciator 901-3 F-2 is clear.				
F.11	Returns key to Work Execution Center.	Gives key to examiner.	___	___	___
EVALUATOR: The candidate should inform you that the task is complete.					

JPM Stop Time: _____

JPM SUMMARY

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

JPM Title: Perform Post Maintenance Test of the Fuel Pool Radiation Monitor
JPM Number: 2014 ILT NRC JPM g   Revision Number: 00

Task Number and Title: **SR-1700-K16** STATE the physical location and DESCRIBE the operation of the following Process Radiation Monitoring System controls:
Reactor Building Vent / Fuel Pool Radiation Monitors
(1)   Bypass keylock switches
(2)   Trip check and Reset pushbuttons
(3)   Trip check adjust knob
(4)   Power supply On/Off switch
(5)   RB vent isolation damper reset switch (local 2251(2)-24X) (CR 912-1)

K/A Number and Importance: **K/A:** 272000.A1.02   **Rating:** 2.9/2.9

Ability to predict and/or monitor changes in parameters associated with operating the RADIATION MONITORING SYSTEM controls including Lights, alarms, and indications associated with surveillance testing

Suggested Testing Environment: Simulator

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

Reference(s): QCOP 1700-06, Rev. 7, Fuel Pool Radiation Monitors

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

Testing Method: ☐ Simulate   ☒ Perform

Estimated Time to Complete: 10 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**: _____

[If this page is an odd numbered page, a blank page is automatically generated after this page to keep the student cue sheet separate from this page]

INITIAL CONDITIONS

- You are the Unit 1 ANSO.

- Three days ago the 1-1705-16A, FUEL POOL RAD MONITOR was declared inoperable due to a faulty connector.

- IM's have completed repairs, and request that it be tested to verify proper operation.

- The US has granted permission to perform the testing.

- You have a key to bypass the Fuel Pool Rad Monitor

INITIATING CUE

Perform QCOP 1700-06 to verify proper operation of Fuel Pool Rad Monitor 1-1705-16A.