

**Exelon Nuclear**

**Job Performance Measure**

**LOS-DG-M3 WITH A LOSS OF THE SAT**

JPM Number: B.1.a

Revision Number: 08

Date: 1/21/2003

Developed By: \_\_\_\_\_  
Facility Author Date

Approved By: \_\_\_\_\_  
Facility Representative Date

## Job Performance Measure (JPM)

### 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 through 11 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, or simulator)
- \_\_\_\_\_ 4. Initial setup conditions are identified.
- \_\_\_\_\_ 5. Initiating and terminating cues 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. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 9. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 10. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 11. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

### **Job Performance Measure (JPM)**

#### **Revision Record (Summary)**

1. **Revision 05,**      Reformatted, revised to current procedure.
2. **Revision 06,**      Verified against current revision of LOS-DG-M3 and revised procedure references. Revised task number to coincide with new task list. Verified against current K&A revision and added an additional ability item.
3. **Revision 07,**      Revised in incorporate Revision 47 of LOS-DG-M3 and upgraded to new JPM Template.
4. **Revision 08,**      Changed JPM designation from S-DG-04 to B.1.a. Incorporated changes to current procedure rev.

**Job Performance Measure (JPM)**

**SIMULATOR SETUP INSTRUCTIONS**

1. Reset the simulator to a full power IC.
2. Place the Simulator in run
3. Start the 1B DG with the Diesel Generator Control Switch on the 1H13-P601 panel. Then red target the 1B DG cooling water pump CS.
4. 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.
5. This completes the setup for this JPM.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. Unit 1 is at 100% power.
2. LOS-DG-M3 is in progress and the applicable steps of Attachment 1B Idle are completed up to and including step 3.1
3. It is not necessary to fill out the surveillance data sheets.

### **INITIATING CUE**

The Shift Supervisor has directed you to complete LOS-DG-M3 starting at Step 3.2 of Attachment 1B-Idle.

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

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### **Information For Evaluator's Use:**

UNSAT requires written comments on respective step.

\* Denotes CRITICAL steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

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### Job Performance Measure (JPM)

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

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
NOTE	All steps of this JPM are to be completed at Control Room Panel H13-P601 unless otherwise noted.		_____	_____	_____
1.	VERIFY 1B DG frequency is 59.8 to 60.2 Hz on 1E22-R612 and voltage is 4050 to 4300 volts 1E22-R612.	Examinee verifies 1B DG frequency $60 \pm 0.2$ Hz and voltage 4050 to 4300 volts.	_____	_____	_____
2.	If desired, WIPE Motor Operated Potentiometer, using the 1B Diesel Gen Volt Reg control switch to raise and lower DG volts.	Raise and lower DG volts between 3900 – 4500. Returns volts to 4050 – 4300.	_____	_____	_____
*3.	PLACE 1B DG/143 Synchronizing Switch to ON.	Examinee places the Synchronizing Switch for breaker 1433 to ON.	_____	_____	_____
*4.	ADJUST 1B DG speed with the 1B Diesel Gen. Governor Switch until the synchroscope rotates slowly in the FAST (clockwise) direction.	Examinee adjusts the 1B DG frequency until the synchroscope turns slowly in the fast direction (approximately 1 rpm).	_____	_____	_____
*5.	ADJUST Division III Incoming Volts with the 1B Gen. Voltage Regulator control switch until it is slightly above BOP/Division III Running Volts.	Examinee adjusts the 1B DG voltage until it is slightly above the BOP/Division III Running Volts.	_____	_____	_____
*6.	When the synchroscope is just before 12 o'clock, CLOSE ACB 1433.	Examinee closes ACB 1433 just before the synchroscope reaches the 12 o'clock position.	_____	_____	_____
7.	PLACE the 1B DG/143 Synchronizing Switch to OFF>	Examinee places the Synchronizing Switch to OFF.	_____	_____	_____

### Job Performance Measure (JPM)

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
*8.	Using the 1B Diesel Gen. Governor and Voltage Regulator control switches, RAISE 1B DG load to 1000 kW to 1300 kW and 350KVR to 750 KVAR and MAINTAIN for 2 minutes.	Examinee raises 1B DG load to 1000 kW to 1300 kW and 350 KVAR to 750 KVAR and maintains this for 2 minutes.	_____	_____	_____
CUE: When Examinee demonstrates the intent of leaving the 1B DG loading at this point for two minutes, you may tell him the two minutes have elapsed.					
9.	Using the 1B Diesel Gen. Governor and Voltage Regulator control switches, RAISE 1B DG load to 1750 kW to 2000 kW and 500KVAR to 1300 KVAR and MAINTAIN for 2 minutes.	Examinee raises 1B DG load to 1750 kW to 2000 kW and 500 KVAR to 1300 KVAR and maintains this for 2 minutes.	_____	_____	_____
CUE When examinee demonstrates the intent of leaving the 1B DG loading at this point for two minutes, you may tell him the two minutes have elapsed.					
SIM OP ImfMEE012					
NOTE	At this point, a loss of the SAT occurs that leaves the 1B DG as the only source of power to Bus 143  Step D.4 gives the operator direction when the SAT is lost.	If a trip of the AC feed from grid to a DG supplied bus occurs while DG is synchronized, resulting in DG being only supply to bus, Engine Governor Speed Droop Dial must immediately set to zero (0), frequency 59.5 to 60.5 Hz, and voltage 4010 to 4210 volts.			
*10.	DIRECT that the 1B DG Engine Governor Speed Droop Dial be set at zero (0).	Examinee directs the EO to place the 1B DG Engine Governor Speed Droop Dial to zero (0).	_____	_____	_____

### Job Performance Measure (JPM)

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
*11.	ADJUST 1B DG frequency to 59.5 to 60.5 Hz and voltage to 4010 to 4310 volts.	Examinee adjusts 1B DG frequency to 59.5 to 60.5 Hz and voltage to 4160 to 4310 volts.	_____	_____	_____
SIM	Mrf IAEEDR1B 0				
OP					
SIM	EO reports droop set at zero				
OP					
<b>Terminating Cue</b>	The JPM is considered complete when the 1B D/G droop is set to zero and the Unit Supervisor is notified.				

JPM Stop Time: \_\_\_\_\_

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**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: LOS-DG-M3 with a Loss of the SAT  
 JPM Number: B.1.a Revision Number: 00  
 Task Number and Title:  
11.007, Given Unit Supervisor authorization, perform the Main Control Room  
actions for a Diesel Generator Operability Test IAW station procedures.

**K/A Number and Importance:** 264000m, A4.04, 3.7/3.7  
264000m, A2.07, 3.5/3.7

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

**Testing Method:** ☐ Simulate **Faulted:** ☐ Yes ☒ No  
☐ Perform **Alternate Path:** ☐ Yes ☐ No

**Time Critical:** ☐ Yes ☒ No SRO Only: ☐ Yes ☐ No

**Estimated Time to Complete:** 15 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** LOS-DG-M3 Rev 53

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
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 \_\_\_\_\_  
 \_\_\_\_\_  
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Evaluator's Name: \_\_\_\_\_ (Print)

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### **INITIAL CONDITIONS**

1. Unit 1 is at 100% power.
2. LOS-DG-M3 is in progress and the applicable steps of Attachment 1B Idle are completed up to and including step 3.1
3. It is not necessary to fill out the surveillance data sheets.

**Exelon Nuclear**

**Job Performance Measure**

**SINGLE ROD INSERT DURING AN ATWS**

JPM Number: B.1.b

Revision Number: 11

Date: 01/21/2003

Developed By: \_\_\_\_\_  
Facility Author Date

Approved By: \_\_\_\_\_  
Facility Representative Date

## Job Performance Measure (JPM)

### 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 through 11 below.

- \_\_\_\_\_ 12. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 13. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 14. Performance location specified. (in-plant, control room, or simulator)
- \_\_\_\_\_ 15. Initial setup conditions are identified.
- \_\_\_\_\_ 16. Initiating and terminating cues are properly identified.
- \_\_\_\_\_ 17. Task standards identified and verified by SME review.
- \_\_\_\_\_ 18. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 19. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 20. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 21. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 22. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

### **Job Performance Measure (JPM)**

#### **Revision Record (Summary)**

- |                        |  |
|------------------------|--|
| 5. <b>Revision 08,</b> | Minor editorial changes. Added this page and scoring instructions.   |
| 6. <b>Revision 09,</b> | Incorporated changes to reflect Rev. 4 of LGA-NB-01. New JPM format.   |
| 7. <b>Revision 10,</b> | Changed step 14 to not critical since failure to perform will not prevent successful completion of task.<br><br>Changed Step 16 to say Continuous Insert or Insert pushbuttons.<br><br>Added ARI was initiated and reset to the initial conditions.<br><br>Revised Steps 8 and 9 to meet Ops expectations (flow change not observable on meter identified but flow will change). |
| 8. <b>Revision 11,</b> | Changed JPM number from S-NB-04 to B.1.b and revised per current procedure.  |

**Job Performance Measure (JPM)**

**SIMULATOR SETUP INSTRUCTIONS**

6. Reset the simulator to IC 32 (rst 32).

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.

7. Run the setup Computer Aided Exercise B.1.br1.cae.
8. Insert manual scram
9. Trip A and B TDRFP's.
10. Place the Rx Mode switch in SHUTDOWN.
11. Verify RWM initialized.
12. 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.
13. This completes the setup for this JPM.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. Unit 1 was at full power.
2. The reactor has scrammed on high drywell pressure.
3. Three rods are stuck out.
4. It has been determined that the rods will be driven in using the CRD system
5. An attempt to reset the scram was made but was unsuccessful.
6. ARI was initiated and then reset.
7. An operator is standing by to assist you.

### **INITIATING CUE**

The Unit Supervisor has directed you to raise CRD System Drive Pressure and insert at least two control rods IAW LGA-NB-01 Method 3. Inform the Unit Supervisor when the rods have been inserted.

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

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### **Information For Evaluator's Use:**

UNSAT requires written comments on respective step.

\* Denotes CRITICAL steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

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### **Job Performance Measure (JPM)**

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

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<u><b>SAT</b></u>	<u><b>UNSAT</b></u>	<u><b>Comment Number</b></u>
NOTE All steps of this JPM are to be completed at Control Room Panel 1H13-P603 unless otherwise noted.					
1.	Determine if an attempt to reset scram was made	Determines that an attempt to reset scram was made.	_____	_____	_____
2.	VERIFY at least one CRD Pump on.	Verifies a CRD pump is running by observing the breaker indication and/or CRD parameters on the 1H13-P603.	_____	_____	_____
3.	Determine if a CRD pump can be operated.	Determines that a CRD pump can be operated.	_____	_____	_____
4.	Determine if Drive Water Pressure is sufficient to insert rods at an acceptable speed.	Determine if Drive Water Pressure is TOO LOW to insert rods at an acceptable speed.	_____	_____	_____
5.	CLOSE 1C11-F003, CRD DRIVE PRESS COTNROL VLV	Control Switch for 1C11-F003 taken to close and held until valve indicates closed.	_____	_____	_____
6.	Determine if Drive Water Pressure is sufficient to insert rods at an acceptable speed.	Determines Drive Water Pressure is TOO LOW to insert rods at an acceptable speed.	_____	_____	_____
*7.	Place the Control Rod Drive Flow Controller, 1C11-R600, in Manual and Full Open.	Places the Control Rod Drive Flow Controller, 1C11-R600, in Manual AND presses the OPEN button until the valve indicates full open.	_____	_____	_____
8.	Determine if flow increased on CRD SYS FLOW 1C11-R606	Determines system flow did not change by meter OR Determines system flow did change but meter could not provide indication of change due to being upscale and requests Supervisor to agree that conditions are met.	_____	_____	_____



### Job Performance Measure (JPM)

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
9.	SET the Local Manual Controller for 1C11-F002A/B to manual and Full Open	Directs local operator to place CRD flow controller for 1C11-F002A in MAN and turn lower know to full increase (clockwise) direction.	_____	_____	_____
CUE	Local operator reports the 1C11-F002A controller is in manual and full open.				
NOTE	CRD drive pressure not significantly affected.				
10.	If scram CANNOT be reset, start a second CRD pump.	Determines second CRD pump can be started and directs NLO to perform C.9.i. through C.9.k.	_____	_____	_____
Cue NOTE	If requested , scram cannot be reset.  Perform section C.9.1 through C.9.k and inform NSO when complete.				
*11.	Starts second CRD Pump at CR panel 1H13-P603.	SIMULTANEOUSLY PLACE <u>both</u> CRD pp. Control Switches to START and HOLD for 5 seconds.	_____	_____	_____
*12.	Open 1C11-F385, "B" CRD pp. discharge.	Directs NLO to open 1C11-F385, "B" CRD pp. discharge.	_____	_____	_____
13.	Crack OPEN, then OPEN. A and B CRD pump suction pressure switches.	Directs NLO to crack OPEN, then OPEN. A and B CRD pump suction pressure switches.	_____	_____	_____
CUE	A and B CRD pp. suct pressure switches open.				
14.	Determine if Drive Water Pressure is sufficient to insert rods at an acceptable speed.	Determines Drive Water Pressure IS SUFFICIENT to insert rods at an acceptable speed. (>280 psid)	_____	_____	_____
15.	Place MODE SELECT switch in BYP to bypass Rod Worth Minimizer.(if required)	Places MODE SELECT switch in BYP to bypass Rod Worth Minimizer.(if required)	_____	_____	_____

### Job Performance Measure (JPM)

<b><u>STEP</u></b>	<b><u>ELEMENT</u></b>	<b><u>STANDARD</u></b>	<b>SAT</b>	<b>UNSAT</b>	<b>Comment Number</b>
*16.	Select a control rod that is not fully inserted.	Selects a control rod that is not fully inserted.	_____	_____	_____
*17.	Press INSERT pushbutton and drive control rod until full in.	Presses CONTINUOUS INSERT or INSERT pushbutton and releases when rod is full in as indicated by four-rod display '00' and/or green full-in light lit on full core display.	_____	_____	_____
*18.	Select a second control rod that is not fully inserted.	Selects a second control rod that is not fully inserted.	_____	_____	_____
*19.	Press INSERT pushbutton and drive control rod until full in.	Presses CONTINUOUS INSERT or INSERT pushbutton and releases when rod is full in as indicated by four-rod display '00' and/or green full-in light lit on full core display.	_____	_____	_____
20.	Unit Supervisor notified when two rods are inserted.	Unit Supervisor notified.	_____	_____	_____

<b>Terminating Cue</b>	The JPM is considered complete when two rods are fully inserted and the Unit Supervisor is notified.
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JPM Stop Time: \_\_\_\_\_

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Single Rod Insert during an ATWS  
 JPM Number: B.1.b Revision Number: 11  
 Task Number and Title:  
29515.01, Perform Alternate Rod Insertion IAW LGA-NB-01

**K/A Number and Importance:** 295015, AA1.01, 3.8/3.9

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

**Testing Method:** ☐ Simulate **Faulted:** ☐ Yes ☒ No  
☐ Perform **Alternate Path:** ☐ Yes ☒ No

**Time Critical:** ☐ Yes ☒ No SRO Only: ☐ Yes ☐ No

**Estimated Time to Complete:** 10 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** LGA-NB-01 Rev 6

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_  
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 \_\_\_\_\_

Evaluator's Name: \_\_\_\_\_ (Print)

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### **INITIAL CONDITIONS**

1. Unit 1 was at full power.
2. The reactor has scrammed on high drywell pressure.
3. Three rods are stuck out.
4. It has been determined that the rods will be driven in using the CRD system
5. An attempt to reset the scram was made but was unsuccessful.
6. ARI was initiated and then reset.
7. An operator is standing by to assist you.

**Exelon Nuclear**

**Job Performance Measure**

**EMERGENCY VENT THE PRIMARY CONTAINMENT  
IAW LGA-VQ-02**

JPM Number: B.1.c  
Revision Number: 09  
Date: 1/22/2003

Developed By: \_\_\_\_\_  
Facility Author Date

Approved By: \_\_\_\_\_  
Facility Representative Date

## **Job Performance Measure (JPM)**

### **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 through 11 below.

- \_\_\_\_\_ 23. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 24. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 25. Performance location specified. (in-plant, control room, or simulator)
- \_\_\_\_\_ 26. Initial setup conditions are identified.
- \_\_\_\_\_ 27. Initiating and terminating cues are properly identified.
- \_\_\_\_\_ 28. Task standards identified and verified by SME review.
- \_\_\_\_\_ 29. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 30. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 31. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 32. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 33. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

## **Job Performance Measure (JPM)**

### **Revision Record (Summary)**

- |                         |   |
|-------------------------|---|
| 9. <b>Revision 08,</b>  | Revised task numbers to reflect current task numbers.<br>Revised K/A numbers to reflect NUREG 1021 Rev 8<br>Revised format to meet NTAFT JLOR03 Rev 1 |
| 10. <b>Revision 09,</b> | Changed JPM to B.1.c from S-VQ-02 and incorporated procedure revisions.   |

## **Job Performance Measure (JPM)**

### **SIMULATOR SETUP INSTRUCTIONS**

14. Reset the simulator to any full power IC.
15. Run **b.1.c.cae** which performs the following:
  - Insert a hydraulic ATWS (**imf mrd277 65 & imf mrd278 60**)
  - ADS SRV solenoids have failed. (**imf mes012, imf mes008, imf mes013, imf mes011, imf mes014, imf mes010, imf mes009**).
  - 'A' vacuum breaker sticks open (**imf mca006**)
  - Provides dual indication for the vacuum breaker (**ior q1h20lgp on**)  
(**ior q1H16lgp on**)
  - Insert MSL break (**imf mnb104 250**)
  - **Complete scram actions**
16. Place ECCS in PTL
17. Trip both TDRFPs and close the 1FW010A & 1FW010B valves
18. Start MDRFP and open min flow valve
19. Turn 1B SBLC on
20. Start the VC Emergency Makeup Unit and place the 'A' VC Train's Recirculation Charcoal Filters in operation IAW LGA-VQ-02 Attachment D.
21. Silence, acknowledge and reset annunciators.
22. 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.
23. This completes the setup for this JPM.



## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

- You are an NSO
- Unit 1 was at rated conditions when a Main Steam Line break occurred.
- All rods did not go in on the scram.
- The 'A' Suppression Chamber-to-Drywell vacuum breaker appears to be stuck somewhere in mid-position.
- The operators have been directed to isolate the failed Suppression Chamber-to-Drywell chamber vacuum breaker.
- Suppression chamber pressure is approaching the Primary Containment Pressure Limit (PCPL)
- The 'A' VC Emergency Makeup Unit and 'A' VC/VE Recirculation Charcoal Filters are in operation.
- All of Unit 2 VQ dampers have been verified closed.

### **INITIATING CUE**

The Unit Supervisor has directed you to perform LGA-VQ-02 to decrease containment pressure. Inform the Unit Supervisor when containment pressure is decreasing.

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

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#### **Information For Evaluator's Use:**

UNSAT requires written comments on respective step.

\* Denotes CRITICAL steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

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### Job Performance Measure (JPM)

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

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
NOTE	All steps of this JPM are to be completed at control room panel 1PM06J unless otherwise noted.		_____	_____	_____
NOTE	Sequence is not required for 1 through 21 inclusive.		_____	_____	_____
1.	CHECK if VC Emergency Makeup Unit AND VC/VE Recirculation Charcoal Filters are in operation	At CR Panel 1PM06J, Examinee determines VC Emergency Makeup Unit AND VC/VE Recirculation Charcoal Filters are in operation	_____	_____	_____
*2.	Defeat isolations IAW LGA-VQ-02 Attachment 1A.	Directs plant operator to defeat isolations IAW LGA-VQ-02 Attachment 1A.	_____	_____	_____
SIM OP	To defeat isolations, modify remote function  iavp1jmp.  (mrf iavp1jmp installed)		_____	_____	_____
CUE	Call as plant operator and report that LGA-VQ-02 Attachment 1A is completed.		_____	_____	_____
3.	VERIFY 1VQ037, VQ TRAIN INLET UPSTRM ISOL VLV, closed.	Examinee verifies 1VQ037, VQ TRAIN INLET UPSTRM ISOL VLV, closed.	_____	_____	_____
4.	VERIFY 1VQ047, DW N2 MAKEUP DWNST ISOL VLV closed.	Examinee verifies VERIFY 1VQ047, DW N2 MAKEUP DWNST ISOL VLV closed.	_____	_____	_____
5.	VERIFY 1VQ030, DW VENT/PURGE INLET DWNST ISOL VLV, CLOSED.	Examinee verifies VERIFY 1VQ030, DW VENT/PURGE INLET DWNST ISOL VLV, CLOSED.	_____	_____	_____

### **Job Performance Measure (JPM)**

<b><u>STEP</u></b>	<b><u>ELEMENT</u></b>	<b><u>STANDARD</u></b>	<b><u>SAT</u></b>	<b><u>UNSAT</u></b>	<b><u>Comment Number</u></b>
6.	VERIFY 1VQ034, DW VENT/PURGE OTLT UPSTRM ISOL VLV, closed.	Examinee verifies VERIFY 1VQ034, DW VENT/PURGE OTLT UPSTRM ISOL VLV, closed.	_____	_____	_____
7.	VERIFY 1VQ035, DW VENT/PURGE OTLT UPSTRM BYPASS ISOL, closed.	Examinee verifies VERIFY 1VQ035, DW VENT/PURGE OTLT UPSTRM BYPASS ISOL, closed.	_____	_____	_____
8.	VERIFY 1VQ048, DW N2 MAKEUP UPSTRM ISOL VLV, closed.	Examinee verifies VERIFY 1VQ048, DW N2 MAKEUP UPSTRM ISOL VLV, closed.	_____	_____	_____
9.	VERIFY 1VQ042, DW N2 INERTING ISOL VLV, closed.	Examinee verifies VERIFY 1VQ042, DW N2 INERTING ISOL VLV, closed.	_____	_____	_____
10.	VERIFY 1VQ029, DW VENT/PURGE INLT UPSTRM ISOL VLV, closed.	Examinee verifies VERIFY 1VQ029, DW VENT/PURGE INLT UPSTRM ISOL VLV, closed.	_____	_____	_____
11.	VERIFY 1VQ068, DW VENT/PURGE OTLT DWNST BYPASS ISOL, closed.	Examinee verifies VERIFY 1VQ068, DW VENT/PURGE OTLT DWNST BYPASS ISOL, closed.	_____	_____	_____
12.	VERIFY 1VQ036, DW VENT/PURGE OTLT DWNST ISOL VLV, closed.	Examinee verifies VERIFY 1VQ036, DW VENT/PURGE OTLT DWNST ISOL VLV, closed.	_____	_____	_____
13.	VERIFY 1VQ031, SP VENT/PURGE OTLT UPSTRM ISOL VLV, closed.	Examinee verifies VERIFY 1VQ031, SP VENT/PURGE OTLT UPSTRM ISOL VLV, closed.	_____	_____	_____
14.	VERIFY 1VQ032, SP VENT/PURGE OTLT UPSTRM BYPASS ISOL, closed.	Examinee verifies VERIFY 1VQ032, SP VENT/PURGE OTLT UPSTRM BYPASS ISOL, closed.	_____	_____	_____
15.	VERIFY 1VQ027, SP VENT/PURGE INLT DWNST	Examinee verifies VERIFY 1VQ027, SP VENT/PURGE	_____	_____	_____

### **Job Performance Measure (JPM)**

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<u><b>SAT</b></u>	<u><b>UNSAT</b></u>	<u><b>Comment Number</b></u>
	ISOL VLV, closed.	INLT DWNST ISOL VLV, closed.			
16.	VERIFY 1VQ050, SP N2 MAKEUP DWNST ISOL VLV, closed.	Examinee verifies VERIFY 1VQ050, SP N2 MAKEUP DWNST ISOL VLV, closed.	_____	_____	_____
17.	VERIFY 1VQ040, SP VENT/PURGE OTLT DWNST ISOL VLV, closed.	Examinee verifies VERIFY 1VQ040, SP VENT/PURGE OTLT DWNST ISOL VLV, closed.	_____	_____	_____
18.	VERIFY 1VQ043, SP N2 INERTING ISOL VLV, closed.	Examinee verifies VERIFY 1VQ043, SP N2 INERTING ISOL VLV, closed.	_____	_____	_____
19.	VERIFY 1VQ026, SP VENT/PURGE INLET UPSTREAM ISOL VLV, closed.	Examinee verifies VERIFY 1VQ026, SP VENT/PURGE INLET UPSTREAM ISOL VLV, closed.	_____	_____	_____
20.	VERIFY 1VQ051, SP N2 MAKEUP UPSTRM ISOL VLV, closed.	Examinee verifies VERIFY 1VQ051, SP N2 MAKEUP UPSTRM ISOL VLV, closed.	_____	_____	_____
21.	VERIFY 1VQ038, VQ TRAIN INLET DWNST ISOL VLV, closed.	Examinee verifies VERIFY 1VQ038, VQ TRAIN INLET DWNST ISOL VLV, closed.	_____	_____	_____
22.	VERIFY 1VQ03Y, RWCU AREAS EXHAUST ISOL DAMPER, closed.	Examinee verifies VERIFY 1VQ03Y, RWCU AREAS EXHAUST ISOL DAMPER, closed.	_____	_____	_____
23.	VERIFY 1VQ041, RB VENT EXHAUST DISCHARGE VLV, closed.	Examinee verifies VERIFY 1VQ041, RB VENT EXHAUST DISCHARGE VLV, closed.	_____	_____	_____
24.	OPEN 1VQ041, RB VENT EXHAUST DISCHARGE VLV.	Examinee verifies OPEN 1VQ041, RB VENT EXHAUST DISCHARGE VLV.	_____	_____	_____
*25.	EVACUATE Reactor Building, Auxiliary Building, and Turbine Building on both Units using plant	Examinee determines evacuation is necessary and makes announcement using plant page	_____	_____	_____

### **Job Performance Measure (JPM)**

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<u><b>SAT</b></u>	<u><b>UNSAT</b></u>	<u><b>Comment Number</b></u>
	page system, if required.	system.			
26.	IF IA is NOT available to open a 26" VQ pathway then VENT the DW at CR Panel 1PM06J.	Examinee determines IA is available.	_____	_____	_____
27.	IF Suppression Pool level is $\geq 724'$ only vent DW.	Examinee determines Suppression Pool level is $\leq 724'$ .	_____	_____	_____
*28.	OPEN 1VQ032, SP VENT/PURGE OTLT UPSTRM BYPASS ISOL.	Examinee opens 1VQ032, SP VENT/PURGE OTLT UPSTRM BYPASS ISOL.	_____	_____	_____
*29.	OPEN 1VQ040, SP VENT/PURGE OTLT DWNST ISOL VLV	Examinee opens 1VQ040, SP VENT/PURGE OTLT DWNST ISOL VLV	_____	_____	_____
Cue	When examinee looks at DW pressure, state that it's 100# and steady.				
*30.	IF pressure will not remain LESS THAN the PCPL OPEN 1VQ031, SP VENT/PURGE OTLT UPSTRM ISOL VLV.	Examinee determines that pressure will not remain less than PCPL and opens 1CQ031, SP VENT/PURGE OTLT UPSTRM ISOL VLV.	_____	_____	_____
Cue	When examinee looks at DW pressure, state that it's 90# and decreasing.				
31.	Monitor drywell pressure for decreasing trend.	Examinee monitors drywell pressure on 1PM13J for decreasing trend.	_____	_____	_____
32.	Informs Unit Supervisor of action taken/status.	Informs Unit Supervisor of action taken/status.			
<b>Terminating Cue</b>	Acknowledge report The JPM is considered complete at this time.				

JPM Stop Time: \_\_\_\_\_  
 .....

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Emergency vent the Primary Containment IAW LGA-VQ-02  
 JPM Number: B.1.c Revision Number: 09  
 Task Number and Title:  
29524.02 Reduce Drywell Pressure by Emergency Primary Containment  
Pressure Relief IAW LGA-VQ-02

**K/A Number and Importance:** 295024 EA1.19 3.3/3.4

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

**Testing Method:** ☐ Simulate **Faulted:** ☐ Yes ☒ No  
☐ Perform **Alternate Path:** ☐ Yes ☒ No

**Time Critical:** ☐ Yes ☒ No SRO Only: ☐ Yes ☐ No

**Estimated Time to Complete:** 10 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** LGA-VQ-02 Rev 9

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_  
 \_\_\_\_\_  
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 \_\_\_\_\_  
 \_\_\_\_\_

Evaluator's Name: \_\_\_\_\_ (Print)

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### **INITIAL CONDITIONS**

- You are an NSO
- Unit 1 was at rated conditions when a Main Steam Line break occurred.
- All rods did not go in on the scram.
- The 'A' Suppression Chamber-to-Drywell vacuum breaker appears to be stuck somewhere in mid-position.
- The operators have been directed to isolate the failed Suppression Chamber-to-Drywell chamber vacuum breaker.
- Suppression chamber pressure is approaching the Primary Containment Pressure Limit (PCPL)
- The 'A' VC Emergency Makeup Unit and 'A' VC/VE Recirculation Charcoal Filters are in operation.
- All of Unit 2 VQ dampers have been verified closed.

**Exelon Nuclear**

**Job Performance Measure**

**BYPASS A FAILED LOCAL POWER RANGE MONITOR (LPRM)**

JPM Number: B.1.d

Revision Number: 03

Date: 1/22/2003

Developed By: \_\_\_\_\_  
Facility Author Date

Approved By: \_\_\_\_\_  
Facility Representative Date



## **Job Performance Measure (JPM)**

### **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 through 11 below.

- \_\_\_\_\_ 34. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 35. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 36. Performance location specified. (in-plant, control room, or simulator)
- \_\_\_\_\_ 37. Initial setup conditions are identified.
- \_\_\_\_\_ 38. Initiating and terminating cues are properly identified.
- \_\_\_\_\_ 39. Task standards identified and verified by SME review.
- \_\_\_\_\_ 40. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 41. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 42. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 43. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 44. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

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

SME/Instructor	Date
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**Job Performance Measure (JPM)**

**Revision Record (Summary)**

- |                         |   |
|-------------------------|---|
| 11. <b>Revision 02,</b> | Utilized new template & made minor editorial changes.                     |
| 12. <b>Revision 03,</b> | Changed JPM from S-NR-01 to B.1.d. Verified correct to current procedure. |

## **Job Performance Measure (JPM)**

### **SIMULATOR SETUP INSTRUCTIONS**

24. Reset the simulator to any full power IC

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.

25. Go to RUN.

26. To cause LPRM 48-33C to fail down scale – **imf mni095**. This will take about 2 minutes.

27. **Verify no LPRM's are listed as INOP on the "C" APRM list on 1H13-P608.**

28. 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.

29. This completes the setup for this JPM.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. The unit is operating near full power.
2. You are the assist NSO.
3. LPRM 48-33C has failed downscale.
4. LOA-NR-101, “Neutron Monitoring Trouble” has been entered and completed through step B.2.3.

### **INITIATING CUE**

The US has requested you to perform section B.2.4 of LOA-NR-101, and bypass LPRM 48-33C. Inform the Unit Supervisor when step B.2.4 of LOA-NR-101 is complete.

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.

Number any comments in the “Comment Number” column on the following pages. Then annotate that comment in the “Comments” section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

### **Job Performance Measure (JPM)**

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

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<b>SAT</b>	<b>UNSAT</b>	<b>Comment Number</b>
1.	If possible, BYPASS the APRM fed by the failed LPRM.	Examinee bypasses "C" APRM at 1H13-P603..	_____	_____	_____
Cue	If requested as US, "C" APRM may be bypassed.				
*2.	Bypass failed LPRM detector.	Bypass switch for LPRM 48-33C is in the BYPASS position at panel 1H13-P608.	_____	_____	_____
*3.	REFER to Attachment B to assist in determining the operability of associated APRM.	Determines APRM operable by: 1. Equal to or greater than two LPRM's per level. 2. Equal to or greater than 14 LPRM's per channel.	_____	_____	_____
4.	SELECT control rod that displays affected LPRM detector and VERIFY downscale reading on the meter.	Selects rod 50-35 and verifies meter downscale..	_____	_____	_____
5.	REFER to T.S. 3.3.2.1	US informed of T.S. 3.3.2.1	_____	_____	_____
Cue	As US, you'll address T.S. 3.3.2.1				
*6.	Unbypass the APRM.	"C" APRM unbypassed.	_____	_____	_____
7.	Notify a QNE.	QNE notified or US informed to notify QNE.	_____	_____	_____
<b>Cue:</b>	If requested as US, you'll notify QNE.				
8.	Refer to LTP 1600-28, Identification of LPRM abnormalities	LTP 1600-28 referred to or US notified.	_____	_____	_____
Cue	As US, you'll refer to LTP-1600-28.				
<b>Terminating Cue</b>	The JPM is considered complete when the examinee has notified the US that step B.2.4 of LOA-NR-101 is complete.				

JPM Stop Time: \_\_\_\_\_

.....

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: bypass a Failed Local Power Range Monitor (LPRM)  
 JPM Number: B.1.d Revision Number: 03  
 Task Number and Title:  
2155.03 Bypass a failed local power range monitor (LPRM)

**K/A Number and Importance:** 215005, A2.02, 3.6./3.7

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ☐ ☐ Simulator ☐ ☐ Plant ☐ ☐ Control Room

**Testing Method:** ☐ ☐ Simulate **Faulted:** ☐ ☐ Yes ☒ No  
☐ ☐ Perform **Alternate Path:** ☐ ☐ Yes ☒ No

**Time Critical:** ☐ ☐ Yes ☐ ☒ No SRO Only: ☐ Yes ☐ No

**Estimated Time to Complete:** 4 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** LOA-NR-101 Rev 6

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_  
 \_\_\_\_\_  
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 \_\_\_\_\_  
 \_\_\_\_\_

Evaluator's Name: \_\_\_\_\_ (Print)

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_



## **INITIAL CONDITIONS**

The unit is operating near full power.

You are the assist NSO.

LPRM 48-33C has failed downscale.

LOA-NR-101, "Neutron Monitoring Trouble" has been entered and completed through step B.2.3.

**Exelon Nuclear**

**Job Performance Measure**

**DONSHIFT REACTOR RECIRC PUMPS IAW LOP-RR-08  
WITH A FAILURE OF BOTH PUMPS TO OFF**

JPM Number: B.1.e

Revision Number: 01

Date: 1/22/2003

Developed By: \_\_\_\_\_

Facility Author

\_\_\_\_\_

Date

Approved By: \_\_\_\_\_

Facility Representative

\_\_\_\_\_

Date



## **Job Performance Measure (JPM)**

### **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 through 11 below.

- \_\_\_\_\_ 45. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 46. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 47. Performance location specified. (in-plant, control room, or simulator)
- \_\_\_\_\_ 48. Initial setup conditions are identified.
- \_\_\_\_\_ 49. Initiating and terminating cues are properly identified.
- \_\_\_\_\_ 50. Task standards identified and verified by SME review.
- \_\_\_\_\_ 51. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 52. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 53. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 54. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 55. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

**Job Performance Measure (JPM)**

**Revision Record (Summary)**

13. **Revision 01**      Revised S-RR-11 to B.1.e for ILT 02-01 exam. Incorporated recent procedure rev.

## **Job Performance Measure (JPM)**

### **SIMULATOR SETUP INSTRUCTIONS**

30. Reset the simulator to IC 38.

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.

31. IMF MRC0015 'B' RR pump fails to downshift, trips to zero.

32. IMF MRC0014 'A' RR pump fails to downshift, trips to zero.

33. 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.

34. This completes the setup for this JPM.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. A reactor shutdown is in progress.
2. LGP-2-1 is complete up to Step E.1.6.

### **INITIATING CUE**

The Unit Supervisor has directed you to downshift the Reactor Recirc pumps IAW LOP-RR-08 step E.1. Inform the Unit Supervisor when the recirc pumps are both downshifted.

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.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

.....

### Job Performance Measure (JPM)

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

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
	All steps of this JPM are to be completed at H13-P602 unless otherwise noted.				
1.	Verify 1G33-F101, RWCU Suct from Bottom Head Dm, is open.	1G33-F101 OPEN.	_____	_____	_____
2.	At the 1DS001 Operator Station RRFCV Process Overview Screen.	Accumulated Time for Delta Temp checked and logged if necessary.	_____	_____	_____
	CUE: If accumulated time not zero, you will log it in the unit log as the Unit Assist person.				
3.	Notify System Engineer of Accumulated Time.	System Engineer notified.	_____	_____	_____
4.	Verify FCL <66.7 %.	<u>FCL verified &lt;66.7% by the use of one of the following:</u> - <u>Reactor power and flow indications.</u> - <u>Core Monitoring Code.</u> - <u>Dual Unit Monitor</u>	_____	_____	_____
*5.	Close MG set feed breakers 1A and 1B.	Control switches for LFMG SET DRIVE MOTOR BKR 1A and LFMG SET DRIVE MOTOR BR 1B taken to start.	_____	_____	_____
6.	VERIFY LFMG output voltage increases to 600 volts in <30 seconds.	A and B LFMG output voltage verified to be 600 volts.	_____	_____	_____
	NOTE The B RR pump will downshift to zero in the following step.				
*7.	TURN Motor control Breaker 3 control Switches for BOTH A and B Reactor Recirc Pumps to the Transfer – MG position.	Control switches for 'A' RR MOTOR BKR 3A and 'B' RR MOTOR BKR 3B taken to Transfer MG simultaneously.	_____	_____	_____

### Job Performance Measure (JPM)

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
8.	OBSERVE that Breakers 3A and 3B open.	Examinee observes that Breakers 3A and 3B open.	_____	_____	_____
9.	OBSERVE that RR Pump speed decreases.	Examinee observes RR pump speed decrease.	_____	_____	_____
10.	OBSERVE that LFMG SET GEN BKR 2A and LFMG SET GEN BKR 2B close.	Examinee observes LFMG SET GEN BKR 2A and LFMG SET GNE BKR 2B do not close.	_____	_____	_____
11.	Notifies Control Room Supervisor the RR pumps have tripped to zero.	Control Room Supervisor notified.	_____	_____	_____
CUE EVAL	Understand that both RR pumps have tripped to zero, carry out actions IAW LOA-RR-101.				
*12.	Operator initiates a manual Reactor scram as directed by LOA-RR-101.	PS pushbuttons armed and depressed, Mode Switch to S/D.	_____	_____	_____
<b>Terminating</b> The JPM is considered complete when the scram is inserted. <b>Cue</b> Further actions from LGP-3-2 are not required.					

JPM Stop Time: \_\_\_\_\_  
 .....

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Downshift Reactor Recirc Pumps IAW LOP-RR-108 with a  
 Failure of one Pump to Off

JPM Number: B.1.e Revision Number: 01

Task Number and Title:  
22.015 Perform the Control Room Actions to respond to a Loss of One or  
 Both RR Pumps IAW LOA-RR-101

**K/A Number and Importance:** 202001, A2.04 3.8/3.7

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

**Testing Method:** ☐ Simulate **Faulted:** ☐ Yes ☐ No  
☐ Perform **Alternate Path:** ☐ Yes ☒ No

**Time Critical:** ☐ Yes ☒ No SRO Only: ☐ Yes ☐ No

**Estimated Time to Complete:** 20 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** LOP-RR-08 Rev 27, LOA-RR-101 Rev 11, LGP-2-1 Rev 61

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_  
 \_\_\_\_\_  
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 \_\_\_\_\_

Evaluator's Name: \_\_\_\_\_ (Print)

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### **INITIAL CONDITIONS**

1. A reactor shutdown is in progress.
2. LGP-2-1 is complete up to Step E.1.6.



**Exelon Nuclear**

**Job Performance Measure**

**LINE UP TO REFILL THE REACTOR VESSEL FROM THE  
FUEL POOL EMERGENCY MAKEUP PUMP  
IAW LGA-FC-01**

JPM Number: B.1.f

Revision Number: 00

Date: 1/9/2003

Developed By: \_\_\_\_\_

Facility Author

\_\_\_\_\_  
Date

Approved By: \_\_\_\_\_

Facility Representative

\_\_\_\_\_  
Date

## Job Performance Measure (JPM)

### 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 through 11 below.

- \_\_\_\_\_ 56. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 57. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 58. Performance location specified. (in-plant, control room, or simulator)
- \_\_\_\_\_ 59. Initial setup conditions are identified.
- \_\_\_\_\_ 60. Initiating and terminating cues are properly identified.
- \_\_\_\_\_ 61. Task standards identified and verified by SME review.
- \_\_\_\_\_ 62. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 63. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 64. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 65. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 66. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

**Job Performance Measure (JPM)**

**Revision Record (Summary)**

14. **Revision 00,**      New JPM.

## **Job Performance Measure (JPM)**

### **SIMULATOR SETUP INSTRUCTIONS**

35. Reset the simulator to a full power IC..
36. **IMF MRC033 3**
37. Perform initial steps of scram procedure.
38. Place ECCS in PTL.
39. Trip RCIC turbine.
40. Trip TDRFP's and close their discharge valves.
41. Install spoolpiece to "B" RHR via remote functions.
42. Reduce MDRFP and allow level to stabilize at approximately –120 inches.
43. ADS to depressurize to < 150 psig.
44. 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.
45. This completes the setup for this JPM.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. LGA-001 has been entered and an attempt is being made to restore water level.
2. Alternate injection is required.
3. RPV pressure is less than 150 psig.
4. The unit Supervisor has ordered LGA-FC-01 ALTERNATE VESSEL OR PRIMARY CONTAINMENT INJECTION USING B FUEL POOL EMERGENCY MAKEUP PUMP to be entered and this procedure is complete up to and including Step E.2.g

### **INITIATING CUE**

The Unit Supervisor has directed you to line up and inject into the reactor vessel using the B Fuel Pool Emergency Make up pump per LGA-FC-01 Step E.2.h. Notify the Unit Supervisor when the pump discharge is open and the pump is running with proper discharge pressure..

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.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

.....

### Job Performance Measure (JPM)

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

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
NOTE	All steps of this JPM are to be completed at Control Room Panel 1H13-P601 unless otherwise noted.		_____	_____	_____
1.	VERIFY OPEN 1E12-F048B, 1B RHR HX BYPASS VLV.	1E12-F048B verified open.	_____	_____	_____
*2.	VERIFY OPEN 1E12-F094, FUEL POOL EMER MU PMP TO 1B RHR UPSTRM ISOL.	Keylock switch for 1E12-F094 taken to open.	_____	_____	_____
*3.	VERIFY OPEN 1E12-F093, FUEL POOL EMER MU PMP TO 1B RHR DWNST ISOL.	Keylock switch for 1E12-F093 taken to open.	_____	_____	_____
*4.	OPEN 1E12F042B, 1B RHR LPCI INJ VLV.	1E12-F042 B verified open.	_____	_____	_____
*5.	OPEN 1E12-F045B, FUEL POOL EMERG. MAKE-UP PUMP DISCHARGE STOP, 5 full turns.	Directs local operator to throttle open 1FC045B 5 full turns.	_____	_____	_____
Cue Sim Op	Local operator reports valve FC045B throttled open 5 full turns.		_____	_____	_____
*6.	START 1B FUEL POOL EMERG. MAKE-UP PUMP	Control Switch for 1B FUEL POOL EMERG MU PMP taken to start.	_____	_____	_____
*7.	THROTTLE the 1FC045B, FUEL POOL EMERGENCY MAKEUP PUMP DISCHARGE STOP to MAINTAIN at least 150 psig discharge pressure on FUEL POOL EMER MU PUMP 1B DISCHARGE, 1PI-FC004 while injecting to the vessel.	Local operator directed to throttle the FC045B to maintain 150 psig in the discharge of the pump.	_____	_____	_____
Cue Sim	Local operator reports valve FC045B throttled.		_____	_____	_____

**Job Performance Measure (JPM)**

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
Op					
Note Sim Op	MRF VHSW45BD 100 60. Opens FC045B fully over 60 seconds.		_____	_____	_____
8.	Report lineup to reactor vessel complete to the Control Room Supervisor.	Reports reactor lineup complete to the Control Room Supervisor	_____	_____	_____
<b>Terminating Cue</b>	This JPM is considered complete, when the lineup is complete and the Control Room Supervisor notified.				

JPM Stop Time: \_\_\_\_\_

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Line up to fill the reactor vessel from the Fuel Pool Emergency  
 makeup Pump IAW LGA-FC-01

JPM Number: B.1.f Revision Number: 00

Task Number and Title:

414.000, Evaluate plant conditions and restore RPV water level to >-150  
 inches using preferred and alternate sources IAW LGA-001.

**K/A Number and Importance:** 233000, 4.5/4.5

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

**Testing Method:** ☐ Simulate **Faulted:** ☐ Yes ☒ No  
☐ Perform **Alternate Path:** ☐ Yes ☒ No

**Time Critical:** ☐ Yes ☒ No SRO Only: ☐ Yes ☐ No

**Estimated Time to Complete:** 20 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** Line up to fill the reactor vessel from the Fuel Pool Emergency Makeup  
 Pump IAW LGA-FC-01 Rev 8

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_ (Print)  
 Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_



### **INITIAL CONDITIONS**

1. LGA-001 has been entered and an attempt is being made to restore water level.
2. Alternate injection is required.
3. RPV pressure is less than 150 psig.
4. The unit Supervisor has ordered LGA-FC-01 ALTERNATE VESSEL OR PRIMARY CONTAINMENT INJECTION USING B FUEL POOL EMERGENCY MAKEUP PUMP to be entered and this procedure is complete up to and including Step E.2.g

**Exelon Nuclear**

**Job Performance Measure**

**TURBINE FEEDWAER PUMP SURVEILLANCE WITH INABILITY  
TO RESET (LOS-FW-SR1)**

JPM Number: B.1.g

Revision Number: 00

Date: 1/22/2003

Developed By: \_\_\_\_\_

Facility Author

\_\_\_\_\_

Date

Approved By: \_\_\_\_\_

Facility Representative

\_\_\_\_\_

Date

## Job Performance Measure (JPM)

### 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 through 11 below.

- \_\_\_\_\_ 67. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 68. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 69. Performance location specified. (in-plant, control room, or simulator)
- \_\_\_\_\_ 70. Initial setup conditions are identified.
- \_\_\_\_\_ 71. Initiating and terminating cues are properly identified.
- \_\_\_\_\_ 72. Task standards identified and verified by SME review.
- \_\_\_\_\_ 73. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 74. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 75. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 76. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 77. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

**Job Performance Measure (JPM)**

**Revision Record (Summary)**

15. **Revision 00,**      New JPM for ILT 02-01.

## **Job Performance Measure (JPM)**

### **SIMULATOR SETUP INSTRUCTIONS**

46. Reset the simulator to IC 38 with the MDRFP and the “A” TDRFP running..

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.

47. Insert the following override to defeat the A TDRFP Emerg Gov Trip Reset P.B.

**IOR K4G04PSY False**

48. Insert the following to override the “tripped” and “reset” lights on the turbine reset P.B.

**IOR Q4G04RRY (2 0) off**

**IOR Q4G04LGY (2 2) on**

49. 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.

50. This completes the setup for this JPM.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. The Unit is at 46% power.
2. The MDRFP and 'A' TDRFP are maintaining Reactor Level.
3. Maintenance has just completed work on the 'A' TDRFP Trip Dump Valve.

### **INITIATING CUE**

The Unit Supervisor has directed you to complete Att. C of LOS-FW-SR1 to test the 'A' TDRFP Emergency and Governor Lockout. An NLO is waiting locally at the A TDRFP. Notify the US when Att. is complete.

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.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

.....

### **Job Performance Measure (JPM)**

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

<b><u>STEP</u></b>	<b><u>ELEMENT</u></b>	<b><u>STANDARD</u></b>	<b><u>SAT</u></b>	<b><u>UNSAT</u></b>	<b><u>Comment Number</u></b>
*1.	PLACE and HOLD A TDRFP Turb Emerg Gov Lockout handswitch to LOCKED OUT position.	Emerg Gov Lockout handswitch taken to LOCKED OUT position.	_____	_____	_____
2.	OBSERVE the following:	The following observed:	_____	_____	_____
	<ul style="list-style-type: none"> <li>• Locked Out light illuminates.</li> <li>• NORMAL light extinguishes</li> <li>• A TDRFP Emerg Gov Lockout Alarm annunciates.</li> <li>• A TDRFP Turb Governor Trip Test RESET light illuminated.</li> <li>• WAIT 10 seconds after the LOCKED OUT light illuminates before performing the next step.</li> </ul>	<ul style="list-style-type: none"> <li>• Locked Out light illuminates.</li> <li>• NORMAL light extinguishes</li> <li>• A TDRFP Emerg Gov Lockout Alarm annunciates.</li> <li>• A TDRFP Turb Governor Trip Test RESET light illuminated.</li> <li>• WAIT 10 seconds after the LOCKED OUT light illuminates before performing the next step.</li> </ul>			
*3.	DEPRESS A TDRFP Turb Emer Gov Trip Test Panel button and OBSERVE the following:	A TDRFP Turb Emer Gov Trip Test Panel button depressed and the following observed:	_____	_____	_____
	<ul style="list-style-type: none"> <li>• Turb A RESET light extinguishes.</li> <li>• TRIPPED light illuminates.</li> <li>• RFP TRP alarm annunciates.</li> <li>• ALLOW system to flush for 5 seconds.</li> </ul>	<ul style="list-style-type: none"> <li>• Turb A RESET light extinguishes.</li> <li>• TRIPPED light illuminates.</li> <li>• RFP TRP alarm annunciates.</li> <li>• ALLOW system to flush for 5 seconds</li> </ul>			
*4.	DEPRESS and HOLD A TDRFP RESET Panel button and OBSERVE the following:	A TDRFP RESET Panel button depressed and following observed:	_____	_____	_____
		<ul style="list-style-type: none"> <li>• TRIPPED light</li> </ul>			

### **Job Performance Measure (JPM)**

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<u><b>SAT</b></u>	<u><b>UNSAT</b></u>	<u><b>Comment Number</b></u>
	<ul style="list-style-type: none"> <li>• TRIPPED light extinguishes</li> <li>• Turb A RESET light illuminates.</li> <li>• RFP Trip alarm CLEARS.</li> </ul>	extinguishes <ul style="list-style-type: none"> <li>• Turb A RESET light illuminates.</li> <li>• RFP Trip alarm CLEARS.</li> </ul>			
5.	RO notifies US of failure to reset	US notified of failure to reset.	_____	_____	_____
*6.	RO notifies NLO at A TDRFP to reset the turbine by pulling the local reset lever.	NLO notified to locally reset the A TDRFP.	_____	_____	_____
<div style="border: 1px solid black; padding: 5px;"> <p><b>NOTE</b> When NLO notified to locally reset the A TDRFP, <b>delete the override for the Emerg Gov Trip Reset then Trigger 2.</b></p> <p><b>CUE</b> As NLO at the A TDRFP, report that the A TDRFP trip lever has been pulled.</p> </div>					
*7.	RO observes the following:	Following observed:	_____	_____	_____
	<ul style="list-style-type: none"> <li>• TRIPPED light extinguishes.</li> <li>• Turb A RESET light illuminates.</li> <li>• RFP Trip alarm CLEARS.</li> </ul>	<ul style="list-style-type: none"> <li>• TRIPPED light extinguishes.</li> <li>• Turb A RESET light illuminates.</li> <li>• RFP Trip alarm CLEARS.</li> </ul>			
8.	RO releases A TDRFP Turb Emer Gov Trip Reset button 10 sec. After RESET light illuminates.	RO waits 10 sec. After RESET light illuminates before releasing Trip Test button	_____	_____	_____
*9.	RO releases A TDRFP Turb Emer Gov Lockout handswitch and OBSERVES the following:	A TDRFP Turb Emer Gov Lockout handswitch released and following OBSERVED:	_____	_____	_____
	<ul style="list-style-type: none"> <li>• LOCKED OUT light extinguishes</li> <li>• Normal light illuminates.</li> <li>• Alarm A TDRFP Emerg Gov Lockout Alarm clears.</li> </ul>	<ul style="list-style-type: none"> <li>• LOCKED OUT light extinguishes</li> <li>• Normal light illuminates.</li> <li>• Alarm A TDRFP Emerg Gov Lockout Alarm clears.</li> </ul>			
10.	RO Notifies US the Att. C is	US notified.	_____	_____	_____



### Job Performance Measure (JPM)

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
Terminating Cue	The JPM is considered complete at this time.				

JPM Stop Time: \_\_\_\_\_

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Turbine Feedwater Pump Surveillance (LOS-FW-SR1)  
 JPM Number: B.1.g Revision Number: 00  
 Task Number and Title:  
 77.033, Complete the Control Room actions necessary to perform the TDRFP  
 surveillance.

**K/A Number and Importance:** 259001 A4.02 3.9/3.7

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

**Testing Method:** ☐ Simulate **Faulted:** ☐ Yes ☐ No  
☐ Perform **Alternate Path:** ☐ Yes ☒ No

**Time Critical:** ☐ Yes ☒ No SRO Only: ☐ Yes ☐ No

**Estimated Time to Complete:** 20 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** Perform the Turbine Feedwater Pump Surveillance (LOS-FW-SR1 Rev. 16)  
 for the A TDRFP

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_  
 \_\_\_\_\_  
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 \_\_\_\_\_

Evaluator's Name: \_\_\_\_\_ (Print)

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### **INITIAL CONDITIONS**

1. The Unit is at 46% power.
2. The MDRFP and 'A' TDRFP are maintaining Reactor Level.
3. Maintenance has just completed work on the 'A' TDRFP Trip Dump Valve.

**Exelon Nuclear**

**Job Performance Measure**

**INSTALL JUMPERS AND LIFT LEADS PER LGA-RI-02 TO USE  
RCIC FOR DEPRESSURIZING THE RPV**

JPM Number: B.2.a

Revision Number: 09

Date: 1/23/2003

**Developed By:** \_\_\_\_\_

**Facility Author**

\_\_\_\_\_  
**Date**

**Approved By:** \_\_\_\_\_

**Facility Representative**

\_\_\_\_\_  
**Date**

## Job Performance Measure (JPM)

### 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 through 11 below.

- \_\_\_\_\_ 78. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 79. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 80. Performance location specified. (in-plant, control room, or simulator)
- \_\_\_\_\_ 81. Initial setup conditions are identified.
- \_\_\_\_\_ 82. Initiating and terminating cues are properly identified.
- \_\_\_\_\_ 83. Task standards identified and verified by SME review.
- \_\_\_\_\_ 84. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 85. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
     Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 86. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 87. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 88. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

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

SME/Instructor	Date
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**Job Performance Measure (JPM)**

**Revision Record (Summary)**

- |                         |   |
|-------------------------|---|
| 16. <b>Revision 07,</b> | Utilized new template & made minor editorial changes.   |
| 17. <b>Revision 08,</b> | Updated to incorporate Revision 8 of LGA-RI-02, added requirement to complete signatures and dates. |
| 18. <b>Revision 09,</b> | Changed JPM from P-RI-01 to B.2.a for ILT 02-01 evaluation.   |

**Job Performance Measure (JPM)**

**SIMULATOR SETUP INSTRUCTIONS**

51. No simulator setup required.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

- A reactor scram has occurred on Unit 1
- All control rods are full in.
- RPV pressure is 1000 psig.
- RPV Emergency Depressurization is required for secondary containment control but NO SRV's will open
- MSIV's will not open, even after isolation were defeated.
- RCIC has isolated due to high RCIC steam tunnel temperatures.
- You have a plant radio.

### **INITIATING CUE**

The Unit 1 NSO has directed you to perform Attachment 1B of LGA-RI-02 "RPV Depressurization Defeating RCIC Isolation Signals". Notify the Unit 1 NSO when the isolations are defeated.

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.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

.....



### Job Performance Measure (JPM)

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

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
1.	Obtain necessary procedure and equipment.	Procedure and equipment obtained.	_____	_____	_____
CUE	You have obtained the equipment you have specified.				
NOTE	Equipment needed: 5 blue jumpers, a screwdriver, and electrical tape.				
NOTE	The procedure can be obtained in the control room. The equipment is in the LGA support locker. The support locker key is an LA key and can be obtained from the control room.				
2.	Locate panel 1(2)H13-P621	Examinee locates Panel 1(2)H13-P621.	_____	_____	_____
NOTE	Panel 1(2)H13-P621 is in the AEER.				
NOTE	Sequence is not required.				
*3.	LIFT and separate leads on HFA relay 1(2)E51A-K15 Pt. 13 in Panel 1(2)H13-P621.	Examinee simulates lifting, separating, and taping leads.	_____	_____	_____
CUE	The leads indicated have been lifted as you described.				
*4.	INSTALL jumper between Pt's. AA-93 to AA-94 in Panel 1(2)H13-P621	Examinee simulates installing jumper.	_____	_____	_____
CUE	Jumper is installed where indicated.				
*5.	INSTALL jumper between Pt's. AA-27 to AA-28 in Panel 1(2)H13-P621	Examinee simulates installing jumper.	_____	_____	_____

### **Job Performance Measure (JPM)**

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<u><b>SAT</b></u>	<u><b>UNSAT</b></u>	<u><b>Comment Number</b></u>
CUE	Jumper is installed where indicated.				
*6.	LIFT lead at CC-43 in Panel 1(2)H13-P621	Examinee simulates lifting and taping lead.	_____	_____	_____
CUE	The lead indicated has been lifted as you described.				
*7.	LIFT lead at CC-74 in Panel 1(2)H13-P621	Examinee simulates lifting and taping lead.	_____	_____	_____
CUE	The lead indicated has been lifted as you described.				
*8.	LIFT lead on HFA relay 1(2)E51A-K3 Pt. 6 in panel 1(2)H13-P621.	Examinee simulates lifting and taping lead.	_____	_____	_____
CUE	The lead indicated has been lifted as you described.				
*9.	LIFT lead on HFA relay 1(2)E51A-K5 Pt. 3 in panel 1(2)H13-P621.	Examinee simulates lifting and taping lead.	_____	_____	_____
CUE	The lead indicated has been lifted as you described.				
*10.	LIFT lead on HFA relay 1(2)E51A-K33 Pt. 13 in panel 1(2)H13-P618.	Examinee simulates lifting and taping lead.	_____	_____	_____
CUE	The lead indicated has been lifted as you described.				
NOTE	Panel 1(2)H13-P618 is located in AEER.				
*11.	Install jumper between Pt's. 5 and 6 on HFA relay 1(2)E51A-K60 in panel 1(2)H13-P618.	Examinee simulates installing jumper.	_____	_____	_____
CUE	Jumper is installed where indicated.				

### **Job Performance Measure (JPM)**

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<b>SAT</b>	<b>UNSAT</b>	<b>Comment Number</b>
*12.	LIFT lead on HFA relay 1(2)E51A-K60 Pt. 13 in panel 1(2)H13-P618.	Examinee simulates lifting and taping lead.	_____	_____	_____
CUE	The lead indicated has been lifted as you described.				
*13.	Install jumper between Pt's. 11 and 12 on HFA relay 1(2)E51A- K60 in panel 1(2)H13-P618.	Examinee simulates installing jumper.	_____	_____	_____
CUE	Jumper is installed where indicated.				
*14.	INSTALL Jumper between Pt's. EE-1 and EE-2 in panel 1(2)H13- P618.	Examinee simulates installing jumper.	_____	_____	_____
CUE	Jumper is installed where indicated.				
*15.	LIFT lead on HFA relay 1(2)E51A-K59 Pt. 13 in panel 1(2)H13-P618.	Examinee simulates lifting and taping lead.	_____	_____	_____
CUE	The lead indicated has been lifted as you described.				
16.	COMPLETE all required signatures and dates	Examinee completes or simulates completing all required signatures and dates.	_____	_____	_____
17.	Notify the Unit 1 NSO that isolations have been defeated.	Examinee simulates notifying the Unit 1 NSO.	_____	_____	_____
<b>Terminating Cue</b>	The JPM is considered complete when signatures are finished and the Unit 1 NSO is informed.				

JPM Stop Time: \_\_\_\_\_  
 .....

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Install jumpers and lift leads per LGA-RI-02 to use RCIC for depressurizing the RPV

JPM Number: B.2.a

Revision Number: 09

Task Number and Title:

401.000 Evaluate plant conditions, locate and perform LGA-RI-02 include installation/removal of a jumper/lifted lead.

**K/A Number and Importance:** 2.1.30 3.9/3.4

**Suggested Testing Environment:** Plant

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

**Testing Method:** ☐ Simulate  
☐ Perform

**Faulted:** ☐ Yes ☒ No  
**Alternate Path:** ☐ Yes ☒ No

**Time Critical:** ☐ Yes ☒ No SRO Only: ☐ Yes ☐ No

**Estimated Time to Complete:** 15 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** LGA-RI-02 Rev 8

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_  
 \_\_\_\_\_  
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 \_\_\_\_\_  
 \_\_\_\_\_

Evaluator's Name: \_\_\_\_\_ (Print)

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### INITIAL CONDITIONS

- A reactor scram has occurred on Unit 1
- All control rods are full in.
- RPV pressure is 1000 psig.
- RPV Emergency Depressurization is required for secondary containment control but NO SRV's will open
- MSIV's will not open, even after isolation were defeated.
- RCIC has isolated due to high RCIC steam tunnel temperatures.
- You have a plant radio.

**Exelon Nuclear**

**Job Performance Measure**

**PERFORM THE LOCAL ACTIONS TO START UP THE MAIN  
STACK WRGM**

JPM Number: B.2.b

Revision Number: 01

Date: 1/23/2003

**Developed By:** \_\_\_\_\_

**Facility Author**

\_\_\_\_\_

**Date**

**Approved By:** \_\_\_\_\_

**Facility Representative**

\_\_\_\_\_

**Date**

## Job Performance Measure (JPM)

### 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 through 11 below.

- \_\_\_\_\_ 89. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 90. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 91. Performance location specified. (in-plant, control room, or simulator)
- \_\_\_\_\_ 92. Initial setup conditions are identified.
- \_\_\_\_\_ 93. Initiating and terminating cues are properly identified.
- \_\_\_\_\_ 94. Task standards identified and verified by SME review.
- \_\_\_\_\_ 95. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 96. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 97. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 98. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 99. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

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

SME/Instructor	Date
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**Job Performance Measure (JPM)**

**Revision Record (Summary)**

- |                         |  |
|-------------------------|--|
| 19. <b>Revision 00,</b> | New JPM  |
| 20. <b>Revision 01,</b> | Changed JPM designation from P-PR-02 to B.2.b for ILT 02-01 evaluation. Checked JPM per new procedure rev. |



**Job Performance Measure (JPM)**

**SIMULATOR SETUP INSTRUCTIONS**

- 52. No setup required.
- 53. Provide a copy of LOP-PR-04 “Startup, Operation, and Troubleshooting of the Station Vent Stack Wide Range Radiation Monitoring System” when examinee describes proper location to locate one.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. The Low Range Stack WRGM sample pump has been requested OOS.
2. The WRGM is lined up per LOP-PR-06M, Unit 0 Station Vent Stack Process Rad. Mechanical Checklist.
3. You have a plant radio.
4. Radiation levels in the plant are normal.

### **INITIATING CUE**

The Unit 1 NSO has directed you to perform the in plant actions to place the Mid/Hi Range Sample Pump and Aux Sample Pump in service per LOP-PR-04. Inform the Unit 1 NSO when step E.8.6 is complete.

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.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

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### **Job Performance Measure (JPM)**

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

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<u><b>SAT</b></u>	<u><b>UNSAT</b></u>	<u><b>Comment Number</b></u>
*1.	On panel 0PLE6J, VERIFY local C/S for Aux Sample Pump is in AUTO.	The Examinee verifies that the C/S for the Aux Sample Pump is in AUTO.	_____	_____	_____
CUE: The Switch is in AUTO.					
*2.	On panel 0PLD5J, VERIFY the Mid./Hi Range Sample Pump Discharge flow valve is open.	The Examinee locates and verifies discharge valve open.	_____	_____	_____
NOTE The valve is labeled 0PLD5J High Range Outlet Stop (No EPN)					
CUE: The valve is open.					
*3.	On panel 0PLD5J, START the Mid./Hi Range Sample Pump by placing the C/S to ON.	The Examinee starts the Mid./Hi Range Sample Pump by placing the C/S to ON..	_____	_____	_____
CUE: The Mid/Hi Range Sample pump is running..					
*4.	On panel 0PLD5J, SHUTDOWN the Low Range Sample Pump by placing the C/S to OFF.	The Examinee places the C/S to OFF for the Low Range Sample Pump.	_____	_____	_____
CUE: The Low Range Sample Pump is OFF.					
*5.	VERIFY the Aux Sample Pump AUTO STARTS.	The Examinee VERIFIES the Aux Sample Pump AUTO STARTS.	_____	_____	_____
CUE: The Aux Sample Pump is running.					

### **Job Performance Measure (JPM)**

- \*6. VERIFY isokinetic flow by taking the sum of the Aux Sample Pump Local Flow Indicator (0D18-N532) and the Mid/Hi Range Sample Pump RM-23 reading (Mon 033) as the total sample flow. Compare the Stack Flow (Mon 029) and VERIFY within the Attachment B limits. The Examinee verifies flow within Att. B limits. \_\_\_\_\_

CUE: If requested, Aux Sample flow from 0D18-N1532 is .8 CFM. Mid/Hi Range Sample Pump flow is 1.6 CFM. Main Vent Stack Flow is  $10 \times 10^5$  CFM

- \*7. Verify Limits within Att. B The Examinee adds .8 and 1.6 to establish sample flow rate of 2.4 CFM which is within limits of Att B and informs US he is complete with step E.8.6. \_\_\_\_\_

CUE: When US informed flow within limits. Respond to examinee "JPM is complete".

JPM Stop Time: \_\_\_\_\_

.....

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Perform the In Plant Actions to Start Up the WRGM  
 JPM Number: B.2.b Revision Number: 01  
 Task Number and Title:  
52.01 Perform the in plant actions to startup the station Vent Stack Wide  
Range Radiation Monitoring System.

**K/A Number and Importance:** 272000 A1.01 3.2/3.2

**Suggested Testing Environment:** Plant

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

**Testing Method:** ☐ Simulate **Faulted:** ☐ Yes ☒ No  
☐ Perform **Alternate Path:** ☐ Yes ☒ No

**Time Critical:** ☐ Yes ☒ No SRO Only: ☐ Yes ☐ No

**Estimated Time to Complete:** 20 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** LOP-PR-04 Revision 19

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_  
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 \_\_\_\_\_  
 \_\_\_\_\_

Evaluator's Name: \_\_\_\_\_ (Print)

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### INITIAL CONDITIONS

1. The Low Range Stack WRGM sample pump has been requested OOS service.
2. The WRGM is lined up per LOP-PR-06M, Unit 0 Station Vent Stack Process Rad. Mechanical Checklist.
3. You have a plant radio.
4. Radiation levels in the plant are normal.

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.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

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**Exelon Nuclear**

**Job Performance Measure**

**VERIFICATION OF LOW PRESSURE HEATER 13B TRIP**

JPM Number: B.2.c

Revision Number: 01

Date: 1/23/2003

Developed By: \_\_\_\_\_  
Facility Author Date

Approved By: \_\_\_\_\_  
Facility Representative Date

## Job Performance Measure (JPM)

### 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 through 11 below.

- \_\_\_\_\_ 100. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 101. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 102. Performance location specified. (in-plant, control room, or simulator)
- \_\_\_\_\_ 103. Initial setup conditions are identified.
- \_\_\_\_\_ 104. Initiating and terminating cues are properly identified.
- \_\_\_\_\_ 105. Task standards identified and verified by SME review.
- \_\_\_\_\_ 106. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 107. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 108. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 109. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 110. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date



**Job Performance Measure (JPM)**

**Revision Record (Summary)**

- |                         |  |
|-------------------------|--|
| 21. <b>Revision 00,</b> | New JPM.   |
| 22. <b>Revision 01,</b> | Changed JPM designation from P-HD-03 to B.2.c for ILT 02-01 evaluation. Revised per current procedure rev. |

**Job Performance Measure (JPM)**

**SIMULATOR SETUP INSTRUCTIONS**

- 54. No setup required.
- 55. Provide LOA-HD-101 when requested.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

1. Unit 1 is at 100% power.
2. The 13B Low Pressure Heater has isolated.
3. Actions are being carried out IAW LOA-HD-101.
4. You are an extra NSO.
5. You have a plant radio.

### **INITIATING CUE**

The Unit 1 NSO directs you to perform Step B.6.4 of LOA-HD-101. Inform the Unit 1 NSO when step B.6.4 is complete.

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.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

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### Job Performance Measure (JPM)

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

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
NOTE	This alternate path JPM assumes that the 14B Heater Normal and Emergency Drains failed to automatically reposition to isolate inputs to the 13B Heater.				
NOTE	The following steps are performed locally at the heater controls.				
1.	CHECK 1HD053B, 14B Emergency Drain OPEN.	The Examinee checks 1HD053B open.	_____	_____	_____
CUE:	The valve has green closed indication.				
2.	CHECK 12HD032B, 14B Normal Drain CLOSED	The Examinee checks 1HD032B closed.	_____	_____	_____
CUE:	The valve has green open and closed indication.				
NOTE	The Examinee must recognize the abnormal situation and take steps IAW the "Response Not Obtained" column.				
CUE:	As the Unit 1 NSO and as necessary, acknowledge any reports made by the Examinee. If the Examinee inquires, the 13B Heater Hi Level alarm has annunciated.				
3.	At 1LIC-HD047, MANUALLY OPEN 1HD053B, 14B Emergency Drain	The Examinee simulates manually opening 1HD053B by placing the controller in Manual and reducing air pressure to the valve.	_____	_____	_____
CUE:	The valve has red open indication.				

### Job Performance Measure (JPM)

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
*4.	AT 1LIC-HD046 MANUALLY CLOSE 1HD032B, 14B Normal Drain.	The Examinee simulates manually closing 1HD032B by placing the controller in Manual and decreasing air pressure to the valve.	_____	_____	_____
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">           CUE: The valve has green closed indication.         </div> <div> <b>Terminating Cue</b> The JPM is considered complete when the Unit 1 NSO is informed that inputs to the 13B Heater have been isolated.         </div>					

JPM Stop Time: \_\_\_\_\_

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Verification of Low Pressure Heater 13A Trip  
 JPM Number: B.2.c Revision Number: 01  
 Task Number and Title:  
79.01 "Respond to a Loss of Feedwater Heater(s)"

**K/A Number and Importance:** 256000 A2.08 3.1/3.1

**Suggested Testing Environment:** {Type suggested testing environment here}

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

**Testing Method:** ☐ Simulate **Faulted:** ☐ Yes ☒ No  
☐ Perform **Alternate Path:** ☐ Yes ☐ No

**Time Critical:** ☐ Yes ☒ No **SRO Only:** ☐ Yes ☐ No

**Estimated Time to Complete:** 12 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** LOA-HD-101 Rev 7

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_  
 \_\_\_\_\_  
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 \_\_\_\_\_  
 \_\_\_\_\_

Evaluator's Name: \_\_\_\_\_ (Print)

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### **INITIAL CONDITIONS**

1. Unit 1 is at 100% power.
2. The 13B Low Pressure Heater has isolated.
3. Actions are being carried out IAW LOA-HD-101.
4. You are an extra NSO.
5. You have a plant radio.

**Exelon Nuclear**

**Job Performance Measure**

**DETERMINE REPORTING REQUIREMENTS**

JPM Number: SA.1.1

Revision Number: 03

Date: 02/26/2003

Developed By: \_\_\_\_\_  
Facility Author Date

Approved By: \_\_\_\_\_  
Facility Representative Date



## **Job Performance Measure (JPM)**

### **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 through 11 below.

- \_\_\_\_\_ 111. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 112. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 113. Performance location specified. (in-plant, control room, or simulator)
- \_\_\_\_\_ 114. Initial setup conditions are identified.
- \_\_\_\_\_ 115. Initiating and terminating cues are properly identified.
- \_\_\_\_\_ 116. Task standards identified and verified by SME review.
- \_\_\_\_\_ 117. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 118. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 119. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 120. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 121. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

## **Job Performance Measure (JPM)**

### **Revision Record (Summary)**

- |                         |  |
|-------------------------|--|
| 23. <b>Revision 00,</b> | New JPM  |
| 24. <b>Revision 03,</b> | Changed JPM designation from A-SO-03 to SA.1.1 for ILT 02-01 evaluation. |

### **MATERIALS**

1. This JPM should be conducted in a location that provides easy access to the required reference procedures (simulator, library, SM office, etc.).
2. The following procedures are required to be available should the candidate request them:
  - Exelon Reportability Reference Manual (Includes LS-AA-1010, 1020, 1110, 1120, and 1130)
  - NSP-OP-AA-106-101, NGG Significant Event Reporting
  - LOA-EM-001, Microwave Tower Abnormal Procedure

**Job Performance Measure (JPM)**

**SIMULATOR SETUP INSTRUCTIONS**

1. No simulator setup required.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

- Unit 1 is near rated conditions.
- It is a normal working day.
- You are an extra SRO
- One hour ago, an accident occurred in the Owner Controlled Area. A large semi-tractor-trailer backed into the Microwave tower causing it to collapse. There were no injuries, but the tower will be down for at least a week.
- A prompt investigation has been initiated.

### **INITIATING CUE**

The Shift Manager has directed you to determine any reportability requirements. He also informs you that he has been unable to reach the Duty Station Manager and directs you to determine the station and corporate communication requirements, if any, for this event.

Inform the Shift Manager when you have completed your determinations.

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.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

.....

## **Job Performance Measure (JPM)**

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

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<b>SAT</b>	<b>UNSAT</b>	<b>Comment Number</b>
Note: The student may also refer to LOA-EM-001 for guidance.					
*1.	Determine reporting requirements IAW Exelon Reportability Reference Manual.	Determines event: <ul style="list-style-type: none"> <li>• Is reportable per SAF 1.10</li> <li>• Requires notification of the NRC via ENS within 8 hours.</li> </ul>	_____	_____	_____
*2.	Determine notification requirements IAW NSP-OP-AA-106-101, NGG Significant Event Reporting.	Notification of following individuals determined to be required: <ul style="list-style-type: none"> <li>• Site VP</li> <li>• Plant Manager</li> <li>• Senior Manager Operations</li> <li>• Nuclear Duty Officer</li> <li>• Station Manager</li> <li>• Experience Assessment / Regulatory Assurance Manager</li> <li>• Senior Resident Inspector</li> <li>• Site Oversight Manager</li> </ul>	_____	_____	_____
3.	Shift Manager notified.	Shift Manager informed of reporting and notification requirements.	_____	_____	_____
Terminating	Acknowledge report				
Cue	The JPM is considered complete at this time.				

JPM Stop Time: \_\_\_\_\_  
 .....

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Determine Reporting Requirements  
 JPM Number: SA.1.1 Revision Number: 03  
 Task Number and Title:  
755.02.00 During performance of tasks apply the administrative requirements  
of ROLES and RESPONSIBILITIES OF ON-SHIFT PERSONNEL IAW  
OP-AA-101-102.

**K/A Number and Importance:** 2.1.14 2.5/3.3

**Suggested Testing Environment:** Simulator/Control Room

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

**Testing Method:** ☐ Simulate **Faulted:** ☐ Yes ☒ No  
☐ Perform **Alternate Path:** ☐ Yes ☒ No

**Time Critical:** ☐ Yes ☒ No SRO Only: ☒ Yes ☐ No

**Estimated Time to Complete:** 10 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** Exelon Reportability Reference Manual, Rev 1; NSP-OP-AA-106-101,  
NGG Significant Event Reporting, Rev 0

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_ (Print)

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### **INITIAL CONDITIONS**

- Unit 1 is near rated conditions.
- It is a normal working day.
- You are an extra SRO
- One hour ago, an accident occurred in the Owner Controlled Area. A large semi-tractor-trailer backed into the Microwave tower causing it to collapse. There were no injuries, but the tower will be down for at least a week.
- A prompt investigation has been initiated.

**Exelon Nuclear**

**Job Performance Measure**

**PERFORM OFFSET POWER VERIFICATION**

JPM Number: SA.1.2

Revision Number: 00

Date: 02/26/2003

Developed By: \_\_\_\_\_  
Facility Author Date

Approved By: \_\_\_\_\_  
Facility Representative Date



## Job Performance Measure (JPM)

### 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 through 11 below.

- \_\_\_\_\_ 122. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 123. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 124. Performance location specified. (in-plant, control room, or simulator)
- \_\_\_\_\_ 125. Initial setup conditions are identified.
- \_\_\_\_\_ 126. Initiating and terminating cues are properly identified.
- \_\_\_\_\_ 127. Task standards identified and verified by SME review.
- \_\_\_\_\_ 128. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 129. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 130. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 131. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 132. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

**Job Performance Measure (JPM)**

**Revision Record (Summary)**

25. **Revision 00,**      New JPM

**MATERIALS**

1.      Provide examinee copy of LOS-AA-W1 if located and requested.

**Job Performance Measure (JPM)**

**SIMULATOR SETUP INSTRUCTIONS**

56. Reset the simulator to any full power IC.
57. This completes the setup for this JPM.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

- Unit 1 and 2 are at near rated conditions.
- It is a normal working day.

### **INITIATING CUE**

The Unit Supervisor has assigned you to perform Attachment 1D of LOS-AA-W1.  
Notify the US when Att. 1D is complete.

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.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

.....

### **Job Performance Measure (JPM)**

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

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<u><b>SAT</b></u>	<u><b>UNSAT</b></u>	<u><b>Comment Number</b></u>
*1.	VERIFY the loss of any one OCB or Bus section (except Bus sections 6 and 13) will not result in the loss of all SAT's and backfeeding UAT's for both Units.	OCB's verified.	_____	_____	_____
*2.	Verify power available to SAT 142 and SAT 242/Backfed UAT 241 from the following offsite lines:  • L0101 or L0102 <u>and</u> • L0103 or L0104	Verifies the following available.  • L0101 or L0102 <u>and</u> • L0103 or L0104	_____	_____	_____
*3.	VERIFY SAT TR 142 is available to supply power to Buses 141Y, 142Y and 143.  • ACB 1412 OPERABLE/closed <u>and</u> • ACB 1422 OPERABLE/closed <u>and</u> • ACB 1432 OPERABLE/closed	ACB's 1412, 1422 and 1432 verified operable and closed.	_____	_____	_____

### **Job Performance Measure (JPM)**

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<u><b>SAT</b></u>	<u><b>UNSAT</b></u>	<u><b>Comment Number</b></u>
*4.	Verify –the alternate qualified offsite circuit is available to supply power to Buses 141Y and 142Y:	Following verified:	_____	_____	_____
	<ul style="list-style-type: none"> <li>○ The other Unit SAT TR 242 available with: <ul style="list-style-type: none"> <li>• ACB 2412, 2414, and 1414 OPERABLE/closed.</li> <li>• ACB 2422, 2424 and 1424 OPERABLE/closed.</li> </ul> </li> <li>○ The other Unit UAT TR 241 Backfed per LOP-AP-01, including appropriate attachments, with: <ul style="list-style-type: none"> <li>• ACB 2411, 2415, 2414 and 1414 OPERABLE/closed.</li> <li>• ACB 2421, 2425, 2424 and 1424 OBERABLE/closed.*</li> </ul> </li> </ul>				
Cue	When requested, U-2 ACB's are OPERABLE.				
5.	Inform US that LOS-AA-W1 Att. 1D has been performed.	US informed that LOS-AA-W1 Att. 1D complete.	_____	_____	_____
Terminating Cue	Acknowledge report The JPM is considered complete at this time.				

JPM Stop Time: \_\_\_\_\_

.....

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Verify Offsite Power Lineup  
 JPM Number: SA.1.2 Revision Number: 00  
 Task Number and Title:  
655.010 Perform LOS-AA-W1

**K/A Number and Importance:**

**Suggested Testing Environment:** Simulator/Control Room

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

**Testing Method:** ☐ Simulate **Faulted:** ☐ Yes ☒ No  
☐ Perform **Alternate Path:** ☐ Yes ☒ No

**Time Critical:** ☐ Yes ☒ No SRO Only: ☐ Yes ☒ No

**Estimated Time to Complete:** 10 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** LOS-AA-W1 Rev 48

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_  
 \_\_\_\_\_  
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 \_\_\_\_\_

Evaluator's Name: \_\_\_\_\_ (Print)

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### **INITIAL CONDITIONS**

- Unit 1 and 2 are at near rated conditions.
- It is a normal working day.



**Exelon Nuclear**

**Job Performance Measure**

**DETERMINE ALLOWED EOOS COMBINATIONS**

JPM Number: SA.2.1

Revision Number: 00

Date: 01/26/2003

Developed By: \_\_\_\_\_  
Facility Author Date

Approved By: \_\_\_\_\_  
Facility Representative Date

## **Job Performance Measure (JPM)**

### **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 through 11 below.

- \_\_\_\_\_ 133. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 134. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 135. Performance location specified. (in-plant, control room, or simulator)
- \_\_\_\_\_ 136. Initial setup conditions are identified.
- \_\_\_\_\_ 137. Initiating and terminating cues are properly identified.
- \_\_\_\_\_ 138. Task standards identified and verified by SME review.
- \_\_\_\_\_ 139. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 140. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 141. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 142. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 143. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

**Job Performance Measure (JPM)**

**Revision Record (Summary)**

26. Revision 00,      New JPM.

**Job Performance Measure (JPM)**

**SIMULATOR SETUP INSTRUCTIONS**

- 58. No simulator setup required.
- 59. A copy of the Tech Specs and LOA-HD-101 must be available to the trainee.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

You are an extra SRO on shift.

Unit 1 is operating in single loop operations. All required actions for single loop operation have been completed.

Subsequently a loss of feed water heating occurred on Unit 1. The loss of feedwater heating is of such a nature that it will not be recovered for at least 8 hours. The crew entered LOA-HD-101 and is following the procedure. Unit 1 Rx power is 75%, and feedwater temperature is 310°F before the crew starts to reduce Rx power in accordance with LOA-HD-101.

### **INITIATING CUE**

The Shift Manager has assigned you to determine the Tech Spec required actions, if any. Inform the Shift Manager when you have completed this task.

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.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

.....

### **Job Performance Measure (JPM)**

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

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<u><b>SAT</b></u>	<u><b>UNSAT</b></u>	<u><b>Comment Number</b></u>
1.	Reviews LOA-HD-101 for applicability	Examinee reviews section B.1 for Loss of Feedwater Heating.	_____	_____	_____
<div style="border: 1px solid black; padding: 5px; background-color: #f0f0f0;">           Cue: If asked for an OD-20 or to talk to a QNE, report the QNE has been informed and will contact the shift upon arrival.         </div>					
2.	Plots the temperature on the curve for Rx Power and Temperature.	Examinee <ul style="list-style-type: none"> <li>• Determines the Feedwater Heating is Declared OOS, per graph in LOA-HD-101</li> <li>• Determines Unit 1 is operating in a condition not specified in the COLR (Core Operating Limits Report). The combination of FW Heating OOS &amp; SLO is not allowed per the COLR.</li> </ul>	_____	_____	_____
<div style="border: 1px solid black; padding: 5px; background-color: #f0f0f0;">           Note: Performance of Step 3 <u>or</u> 4 would meet the conditions of the critical step.         </div>					
*3.	Refers to Tech Spec 3.2.2 for MCPR	Examinee <p>Determines TS actions</p> <ul style="list-style-type: none"> <li>• Restore MCPR to within limits in 2 hours</li> <li>• Reduce Thermal Power to &lt;25% RPT in the next 4 hours.</li> </ul>	_____	_____	_____

### **Job Performance Measure (JPM)**

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<u><b>SAT</b></u>	<u><b>UNSAT</b></u>	<u><b>Comment Number</b></u>
*4.	Refers to Tech Spec 3.2.3 for LHGR	Examinee Determines TS actions <ul style="list-style-type: none"> <li>• Restore LHGR to within limits in 2 hours</li> <li>• Reduce Thermal Power to &lt;25% RPT in the next 4 hours.</li> </ul>	_____	_____	_____
<div style="border: 1px solid black; padding: 5px; background-color: #f0f0f0;"> <b>NOTE</b> The requirement is to get both the 2 hour &amp; 4 hour Timeclocks correct. The reason may or may not be communicated to the Shift Manager.         </div>					
*5.	Informs the Shift Manager of the TS Timeclocks due to a non-allowed combination of Equipment OOS.	Informs the Shift Manager of the TS Timeclocks	_____	_____	_____

JPM Stop Time: \_\_\_\_\_

.....

**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Determine Allowed EOOS Combinations  
 JPM Number: SA.2.1 Revision Number: 00  
 Task Number and Title:

774.010 Given the proper procedure and a Tech Spec which requires a timeclock for actions, identify and prepare the Technical Specification required actions IAW station procedures.

**K/A Number and Importance:** 2.1.11, K/A importance RO 3.0 SRO 3.8

**Suggested Testing Environment:** Simulator or any classroom with procedures available

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

**Testing Method:** ☐ Simulate **Faulted:** ☐ Yes ☒ No  
☐ Perform **Alternate Path:** ☐ Yes ☒ No

**Time Critical:** ☐ Yes ☒ No SRO Only: ☐ Yes ☐ No

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

**References:** LOA-HD-101, Rev. 7, T.S. 3.2.2 and 3.2.3.

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
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 \_\_\_\_\_  
 \_\_\_\_\_

Evaluator's Name: \_\_\_\_\_ (Print)

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_





## **INITIAL CONDITIONS**

You are an extra SRO on shift.

Unit 1 is operating in single loop operations. All required actions for single loop operation have been completed.

Subsequently a loss of feed water heating occurred on Unit 1. The loss of feedwater heating is of such a nature that it will not be recovered for at least 8 hours. The crew entered LOA-HD-101 and is following the procedure. Unit 1 Rx power is 75%, and feedwater temperature is 310°F before the crew starts to reduce Rx power in accordance with LOA-HD-101.

**Exelon Nuclear**

**Job Performance Measure**

**Radwaste Discharge Source Check**

JPM Number: SA.3.1

Revision Number: 00

Date: 3/5/2003

Developed By: \_\_\_\_\_  
Facility Author Date

Approved By: \_\_\_\_\_  
Facility Representative Date

## **Job Performance Measure (JPM)**

### **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 through 11 below.

- \_\_\_\_\_ 144. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 145. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 146. Performance location specified. (in-plant, control room, or simulator)
- \_\_\_\_\_ 147. Initial setup conditions are identified.
- \_\_\_\_\_ 148. Initiating and terminating cues are properly identified.
- \_\_\_\_\_ 149. Task standards identified and verified by SME review.
- \_\_\_\_\_ 150. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 151. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 152. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 153. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 154. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

## **Job Performance Measure (JPM)**

### **Revision Record (Summary)**

27. **Revision 00,**      New JPM for ILT 02-01.

**Job Performance Measure (JPM)**

**SIMULATOR SETUP INSTRUCTIONS**

60. Reset to any power IC.
61. Provide a marked up copy of LOP-WF-20, “Radwaste Discharge Tank Discharge to the Lake Blowdown Line”.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

- Unit 1 and Unit 2 are at 100% power.
- OLS006, Makeup Blowdown Cross Connect Valve is closed.
- 1WF05T, U1 Radwaste Discharge Tank has been on recirculation and samples taken are within discharge specifications.
- Lake Blowdown Flow control Valve position (0WL005) is 30% IAW Outside Operator Rounds.
- Lake Level is 701.5 ft.
- Blowdown Flow Monitor 0FX-WL071 indicates 27,100 gpm.
- LOP-WF-20 has been completed up to E.4.2 and page 12 and to 1.20 of Att. A.
- LIS-PR-001 was performed at 0700 this morning with the following results:
  1. High Alarm/Trip setpoint at  $2E10^5$
  2. High High Alarm/Trip setpoint at  $6E10^5$

### **INITIATING CUE**

The US has directed you to perform step E.4.2 (Att. A from Step 1.20 through Step 1.20.8.) Inform the US when step 1.20.8 of Att. A is complete.

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.

### **Job Performance Measure (JPM)**

Number any comments in the “Comment Number” column on the following pages. Then annotate that comment in the “Comments” section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

.....

### **Job Performance Measure (JPM)**

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

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<u><b>SAT</b></u>	<u><b>UNSAT</b></u>	<u><b>Comment Number</b></u>
1.	Record background radiation reading.	Background radiation reading recorded.	_____	_____	_____
2.	Record "as left" High Alarm/Trip setpoint from most recent LIS-PR-001	High Alarm/Trip setpoint recorded as $2E10^5$ (from initial conditions).	_____	_____	_____
3.	Record "as left" High High Alarm/Trip setpoint from most recent LIS-PR-001.	High High Alarm/Trip setpoint recorded as $6E10^5$ (from initial conditions).	_____	_____	_____
4.	Record date of most recent LIS-PR-001.	Today's date recorded per initial conditions.	_____	_____	_____
5.	Place mode selector switch to CK SOURCE and record reading after it has stabilized. If no visible deflection notify US.	Mode selector switch to CK SOURCE and reading recorded after it has stabilized.	_____	_____	_____
*6.	Check High-High Rad Inop alarm is received on Panel 1H13-P601-B302, if <u>NOT</u> Notify Unit Supervisor.	Unit Supervisor notified that alarm 1H13-P601-B302, <u>NOT</u> received.	_____	_____	_____
Cue:	As US, "I'll notify the IM's that we did not receive the alarm".				
7.	Place Mode Selector Switch to OPERATE, Depress Reset (DNSCL/INOP) pushbutton and observe LCRM reading returns to normal.	Mode Selector Switch to OPERATE, Reset (DNSCL/INOP) pushbutton depressed.	_____	_____	_____
8.	Check background reading from Step 1.20.6 is within 20% of Step 1.20.1, if not, contact Unit Supervisor.	Background reading from step 1.20.6 is within 20% of step 1.20.1.	_____	_____	_____
9.	Sign source check performance.	Source check performance signed.	_____	_____	_____
10.	Notifies US that Step 1.20.8 is complete.	US notified step 1.20.8 complete.	_____	_____	_____
Cue:	State JPM is complete when notified that step 1.20.8 is complete.				

JPM Stop Time: \_\_\_\_\_

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**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Determine if Discharge Tank Flowrates in Spec.  
 JPM Number: A.3.1 Revision Number: 00  
 Task Number and Title:  
121.030 Perform the actions to discharge a Radwaste Discharge Tank to the  
Lake Blowdown Line.

**K/A Number and Importance:**

272000 Knowledge of the effect that a loss or malfunction of the Radiation  
Monitoring system will have on station liquid effluent releases 3.2/3.8

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

**Testing Method:** ☐ Simulate **Faulted:** ☐ Yes ☐ No  
☒ Perform **Alternate Path:** ☐ Yes ☐ No

**Time Critical:** ☐ Yes ☒ No SRO Only: ☐ Yes ☐ No

**Estimated Time to Complete:** 10 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** LOP-WF-20 Rev 36

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_ (Print)

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### INITIAL CONDITIONS

- Unit 1 and Unit 2 are at 100% power.
- OLS006, Makeup Blowdown Cross Connect Valve is closed.
- 1WF05T, U1 Radwaste Discharge Tank has been on recirculation and samples taken are within discharge specifications.
- Lake Blowdown Flow control Valve position (0WL005) is 30% IAW Outside Operator Rounds.
- Lake Level is 701.5 ft.
- Blowdown Flow Monitor 0FX-WL071 indicates 27,100 gpm.
- LOP-WF-20 has been completed up to E.4.2 and page 12 and to 1.20 of Att. A.
- LIS-PR-001 was performed at 0700 this morning with the following results:
  1. High Alarm/Trip setpoint at  $2E10^5$
  2. High High Alarm/Trip setpoint at  $6E10^5$

**Exelon Nuclear**

**Job Performance Measure**

**PERFORM TRANSFER OF COMMAND AND CONTROL TO TSC**

JPM Number: SA.4.1

Revision Number: 00

Date: 1/27/2003

Developed By: \_\_\_\_\_  
Facility Author Date

Approved By: \_\_\_\_\_  
Facility Representative Date

## **Job Performance Measure (JPM)**

### **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 through 11 below.

- \_\_\_\_\_ 155. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 156. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 157. Performance location specified. (in-plant, control room, or simulator)
- \_\_\_\_\_ 158. Initial setup conditions are identified.
- \_\_\_\_\_ 159. Initiating and terminating cues are properly identified.
- \_\_\_\_\_ 160. Task standards identified and verified by SME review.
- \_\_\_\_\_ 161. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 162. Verify the procedure referenced by this JPM matches the most current revision of that procedure:  
Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_
- \_\_\_\_\_ 163. Pilot test the JPM:
  - a. verify cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- \_\_\_\_\_ 164. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 165. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

\_\_\_\_\_  
SME/Instructor

\_\_\_\_\_  
Date

## **Job Performance Measure (JPM)**

### **Revision Record (Summary)**

28. **Revision 00,**      New JPM for ILT 02-01 exam.

### **MATERIALS**

1.      The following material is required to be provided to examinee.
  - EP-A-112, Emergency Response Organization (ERO) / Emergency Response Facility (ERF) Activation and Operation.
  - A copy of EP-AA-112-100, Control Room Operations, marked up to Step 2, Transfer of Command and Control.
  - Copy of a rough log of the event.

**Job Performance Measure (JPM)**

**SIMULATOR SETUP INSTRUCTIONS**

62. No simulator setup required.

## **Job Performance Measure (JPM)**

### **INITIAL CONDITIONS**

- U1 is in an emergency situation resulting in a reactor trip and safety injection.
- Conditions have degraded and you have declared a Site Emergency under EAL FS1, 30 minutes ago.
- The TSC is fully activated and ready in all aspects to assume Command and Control.
- A rough log has been kept.

### **INITIATING CUE**

- You are the Shift Manager/Acting Station Director.
- Perform EP-AA-112 steps 1 through 6 of Att. 1 to transfer the turnover of Command and Control to the TSC during a Site Emergency.

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

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### **Information For Evaluator's Use:**

UNSAT requires written comments on respective step.

\* Denotes CRITICAL steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. 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 timeclock starts when the candidate acknowledges the initiating cue.

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### **Job Performance Measure (JPM)**

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

<u><b>STEP</b></u>	<u><b>ELEMENT</b></u>	<u><b>STANDARD</b></u>	<b>SAT</b>	<b>UNSAT</b>	<b>Comment Number</b>
1.	Obtain a copy of EP-AA-112, "Emergency Response Organization (ERO)/Emergency Response Facility (ERF) Activation and Operation".	Examinee identifies where EP's can be obtained.	_____	_____	_____
<b>CUE</b>	After examinee identifies where EPs can be obtained, provide examinee with copy of EP-AA-112.				
*2.	Refer to EP-AA-112 Att. 1 and fills out classification level and offsite notification status.	Locates and opens EP-AA-112 Att. 1 and fills out the following information: <ul style="list-style-type: none"> <li>• Station and Unit</li> <li>• Current Classification, EAL and time.</li> <li>• Latest State/Local notification, No. and time.</li> <li>• Latest NRC notification, No. and time.</li> </ul>	_____	_____	_____
*3.	Refer to EP-AA-112 Att. 1 and fills out pertinent information status.	<u>Locates and opens EP-AA-112 Att. 1 and fills out the following information:</u> <ul style="list-style-type: none"> <li>• ERDS Activated – Yes –20 min. ago</li> <li>• Accountability Initiated – YES – 27 min. ago.</li> <li>• Site Evacuation Initiated – YES – 5 min. ago.</li> <li>• Release Occurring – NO</li> <li>• In-Plant/Site Radiological Concerns – NO</li> <li>• Off-Site Assistance Requested – NO</li> <li>• Station Priorities reviewed - YES</li> </ul>	_____	_____	_____



### **Job Performance Measure (JPM)**

- \*4. Refers to EP-AA-112 Att. 1.5 and determines TSC will perform the following: \_\_\_\_\_
- Event Classification
  - PAR Decision Making
  - State/Local Notifications
  - Emergency Exposure Controls
- Determines TSC ready to perform non-delegable functions. \_\_\_\_\_
- Event Classification - YES
  - PAR Decision Making - YES
  - State/Local Notifications - YES
  - Emergency Exposure Controls – YES

**CUE** As communicator in the TSC respond YES to #4 above (TSC will perform all)

- \*5. Determine TSC has Command and Control \_\_\_\_\_
- Determines TSC has Command and Control \_\_\_\_\_
- Adequately staffed to perform non-delegable duties – YES
- Briefed on event status – YES
- Transferred to TSC - yes

**Terminating Cue** Upon completion of Att. 1, notify the examinee that JPM is considered complete at this time.

JPM Stop Time: \_\_\_\_\_

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**Job Performance Measure (JPM)**

Operator's Name: \_\_\_\_\_  
 Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Perform Transfer of Command and Control to TSC  
 JPM Number: SA.4.1 Revision Number: 00  
 Task Number and Title:  
701.001 Perform action required as the Acting Station Director

**K/A Number and Importance:** 2.4.40 2.3/4.0

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ☐ ☐ Simulator ☐ ☐ Plant ☐ ☐ Control Room

**Testing Method:** ☐ ☐ Simulate **Faulted:** ☐ ☐ Yes ☒ No  
☐ ☐ Perform **Alternate Path:** ☐ ☐ Yes ☒ No

**Time Critical:** ☐ ☐ Yes ☐ ☒ No SRO Only: ☐ Yes ☐ No

**Estimated Time to Complete:** 15 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**References:** EP-AA-112 Rev 6

**EVALUATION SUMMARY:**

Were all the Critical Elements 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: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
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 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Evaluator's Name: \_\_\_\_\_ (Print)

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Job Performance Measure (JPM)**

**INITIAL CONDITIONS**

- U1 is in an emergency situation resulting in a reactor trip and safety injection.
- Conditions have degraded and you have declared a Site Emergency under EAL FS1, 30 minutes ago.
- The TSC is fully activated and ready in all aspects to assume Command and Control.
- A rough log has been kept.

### **Job Performance Measure (JPM)**

#### **ROUGH LOG**

<u>Time</u> <u>(minutes ago)</u>	<u>Event</u>
45	Reactor Scram / Safety Injection
40	Unusual Event declared HU2, uncontrolled RCS cooldown
35	NARS and ENS message #1 notifications made
32	Entered LGA-001 and 003
30	Site Emergency declared, FS1, potential loss 2 barriers
27	Site Assembly initiate4d
25	NARS and ENS message #2 notifications made. Continuous communications established with ON and OFFSITE facilities / agencies.
20	ERDS activated
10	TSC activated, manned and ready, awaiting transfer of command and control
5	Site Assembly complete, all accounted for, Site Evacuation of Non-essential personnel ordered.

#### **OTHER INFORMATION**

No Offsite assistance requested.  
 No releases in progress.  
 Normal post trip rad levels exist throughout the site.  
 Wind speed 4.6 meters/sec.  
 Wind direction 280 degrees.  
 Station Priorities have been reviewed.