

# Exelon Nuclear

## Job Performance Measure

### **Determine the Need for APRM Gain Adjust and then Perform an APRM Gain Adjust**

JPM Number: A-RO-28

Revision Number: 00

Date: 08/31/2012

Developed By: \_\_\_\_\_  
Instructor Date

Validated By: \_\_\_\_\_  
SME or Instructor Date

Reviewed By: \_\_\_\_\_  
Operations Representative Date

Approved By: \_\_\_\_\_  
Training Department Date

## JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

**NOTE:** All steps of this checklist should be performed upon initial validation.  
Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

- \_\_\_\_\_ 1. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 2. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 3. Performance location specified. (in-plant, control room, simulator, or other)
- \_\_\_\_\_ 4. Initial setup conditions are identified.
- \_\_\_\_\_ 5. Initiating cue (and terminating cue if required) are properly identified.
- \_\_\_\_\_ 6. Task standards identified and verified by SME review.
- \_\_\_\_\_ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_
- \_\_\_\_\_ 9. Verify cues both verbal and visual are free of conflict.
- \_\_\_\_\_ 10. Verify performance time is accurate
- \_\_\_\_\_ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

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

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

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

## Revision Record (Summary)

**Revision 00**, This JPM has been MODIFIED for the ILT 11-1 NRC Exam. It is based on bank JPM S-LOS-NR-SR1 Rev 2. It combines Simulator indications with the APRM mockup.

## SET UP INSTRUCTIONS

1. This JPM may be performed in any IC with the reactor at power.
2. At Panel 1H13-P603, verify no APRMS are bypassed.
3. Setup the IMD APRM mock up inside the Simulator boundary. (Back-panel area near the APRMs is preferred).
  - Plug it in to an available 120 VAC source.
  - Re-label the mockup as APRM F.
  - Adjust the mockup Card Z31 R16 potentiometer so that APRM is indicating approximately 81%.
  - Place the Channel Function switch (S2) in the “COUNT” position.
  - Verify the APRM Bypass light is OFF (Switch in back of the mockup)
  - Provide a “Jeweler’s” screwdriver (plastic).
4. Provide a copy of LOS-NR-SR1 signed off as follows:
  - All Step B, C, & D steps circled and slashed.
  - Step E.1.1 Marked as completed by the Unit Supervisor
    - For Step E.1.1.3 use a value of 85%
    - For Step E.1.1.4 use a range setting of 83% to 87%.
5. Provide the following attachments:
  - Attachment 1: A “Faulted” OD-20 Printout
  - Attachment 2: A “Faulted” OD-3 Printout
  - Attachment 3: An “Adjusted” OD-3If necessary, the required attachments can be developed as follows:
  - Reset to any convenient IC at power that has NO LPRMs failed.
  - GO to RUN.
  - Adjust as necessary to achieve 85% power.
  - When stable, print out OD-3 for use as the “Adjusted OD-3”, Attachment 3. (This may be provided when the candidate checks the Gain Adjustment)
  - Insert the following command:
    - **imf mni107 5**  
(APRM F Out of Calibration Low by 5% severity X 85% power=80.75%)
    - When stable, print out the Faulted OD-20 for use as Attachment 1 and a Faulted OD-3 for use as Attachment 2.
6. To reset for subsequent administration of this JPM:
  - At Panel 1H13-P603, verify no APRMS are bypassed.
  - Adjust the mockup Card Z31 R16 potentiometer so that APRM is indicating approximately 81%.
  - Place the Channel Function switch (S2) in the “COUNT” position.
  - Verify the APRM Bypass light is OFF (Switch in back of the mockup).

### INITIAL CONDITIONS

You are the Unit 1 Assist NSO.  
Unit 1 is stable at approximately 85% power.  
A rod pattern adjustment has just been completed.  
No other tests or evolutions are in progress.  
An OD 20 has just printed out.  
The Process Computer is NOT available.

### INITIATING CUE

The Unit Supervisor directs you to review the OD 20 for Tech Spec compliance.  
Report you findings/conclusions to the Unit 1 Supervisor.

(Evaluator: Provide Attachment 1 of this JPM)

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

<u>STEP</u> (LOS-NR-SR1)	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
*1	Review the OD 20. Determine that APRM F Gain Adjustment is outside of the desired setting range	APRM F identified as reading too low.	_____	_____	_____
<b>CUE</b>	<b>If the candidate requests an additional OD-3 to confirm the OD-20 values, provide Attachment 2 of this JPM.</b>				
2.	Report to the Unit Supervisor that APRM F Gain Adjustment is outside of the required T.S. range	APRM F low reading reported to the Unit Supervisor	_____	_____	_____
<b>CUE</b>	<b>ROLE PLAY as Unit Supervisor as necessary to acknowledge this report. Inform the candidate that the necessary Time Clock will be logged. Then direct the candidate to perform LOS-NR-SR1, APRM Gain Adjustment, for APRM F. Provide the prepared copy of LOS-NR-SR1 with Step E.1.1 completed.</b>				
*3	Examinee obtains a small "jeweler's" type screwdriver.	Candidate obtains a small "jeweler's" type screwdriver.	_____	_____	_____
<b>CUE</b>	<b>When the candidate demonstrates where the jeweler's screwdriver is stored in the control room, in the NSO desk drawer, provide the necessary screwdriver.</b>				
4. (E.1.2)	PERFORM steps E.2.1 through E.2.7 for APRM(s) that require gain adjustment per direction of Unit Supervisor.	Candidate proceeds to perform Steps E.2.1 through E.2.7 for APRM F	_____	_____	_____
*5 (E.2.1)	Bypass APRM Channel F	(B RPS) APRM BYPASS switch taken from the neutral position to the F position	_____	_____	_____
6. (E.2.1 1 <sup>st</sup> bullet)	Verify that the white APRM F bypass status light is illuminated on the 1H13-P603 panel.	White "BYPASS" light is verified ON at the 1H13-P603 Panel for APRM F	_____	_____	_____

<b><u>STEP</u></b> (LOS-NR-SR1)	<b><u>ELEMENT</u></b>	<b><u>STANDARD</u></b>	<b>SAT</b>	<b>UNSAT</b>	<b>Comment Number</b>
<b>7.</b> (E.2.1 2 <sup>nd</sup> bullet)	Verify that the white APRM F bypass status light is illuminated on the 1H13-P608 panel.	White "BYPASS" light is verified ON at the on the 1H13-P608 panel.	_____	_____	_____
<b>CUE</b>	<b>Inform the candidate that, for the purpose of this JPM, the IMD Mockup will serve as the APRM F cabinet at 1H13-P608.</b>				
<b>CUE</b>	<b>If the candidate has successfully bypassed APRM F at the 1H13-P603 panel, use the switch in the back of the IMD Mockup to turn on the White "BYPASS" light .</b>				
<b>8.</b> (E.2.2)	VERIFY APRM Channel F Function Switch (S2) in "AVERAGE" position.	Candidate identifies APRM F Function Switch (S2) in the COUNT position and then places it in AVERAGE	_____	_____	_____
<b>*9</b> (E.2.3)	At APRM Channel F, circuit board Z31 (AUX), Adjust "Gain" potentiometer R16 to obtain the APRM Channel F Reactor Average Power (RAP) setting recorded in Step E.1.1.3 using any of the following methods: <ul style="list-style-type: none"> <li>• APRM Channel meter (M1) reading from red scale</li> <li>• OD-3 printout(s)</li> </ul>	On APRM F, the R16 potentiometer rotated in the clockwise direction to increase the indication on the APRM F. A setting of 83% to 87% is achieved.	_____	_____	_____
<b>NOTE</b>	<b>The above step also allows use of Computer points B677 through B682, but the Process Computer is out of service per the Initiating Cue.</b>				
<b>CUE</b>	<b>If the candidate requests an OD-3, provide Attachment 3 of this JPM.</b>				
<b>10.</b> (E.2.4)	Verifies that the current APRM F value is acceptable per TS SR 3.3.1.1.2.	TS SR 3.3.1.1.2. verification requested for APRM F	_____	_____	_____
<b>CUE</b>	<b>ROLE PLAY as another member of the operating crew as necessary if the candidate asks for verification. Notify the Examinee that the value is acceptable.</b>				
<b>11.</b> (E.2.5)	(At Panel 1H13-P603) Take APRM Channel F out of BYPASS	APRM BYPASS switch taken out of the F position and into the neutral position	_____	_____	_____

<b><u>STEP</u></b> (LOS-NR-SR1)	<b><u>ELEMENT</u></b>	<b><u>STANDARD</u></b>	<b>SAT</b>	<b>UNSAT</b>	<b>Comment Number</b>
<b>12.</b> (E.2.5 Bullets)	Verify that the white APRM F bypass status light is extinguished on the 1H13-P603 and 1H13-P608 panels.	White "BYPASS" lights are verified OFF the 1H13-P603 and 1H13-P608 panels for APRM F.	_____	_____	_____
<b>NOTE</b>	<b>Step E.2.6 is N/A because no additional APRMs require adjustment.</b>				
<b>13.</b> (E.2.7)	Record the as-left "RAP" value for APRM F.	A value of 83%-87% is recorded in LOS-NR-SR1 for APRM F	_____	_____	_____
<b>14.</b> (E.2.8)	Examinee informs the Unit US that the APRM Channel F is returned to service and any time clock due to this LOS may now be exited.	Examinee makes notification to Unit US that the Gain Adjustment is complete.	_____	_____	_____
<b>CUE</b>	<b>ROLE PLAY the Unit Supervisor as necessary to acknowledge this report. Inform the candidate that the Time clock has been exited.</b>				
<b>TERMINATING CUE: This completes this JPM.</b>					

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



**JPM SUMMARY**

**Operator's Name:** \_\_\_\_\_

**Job Title:**  EO  RO  SRO  FS  STA/IA  SRO Cert

**JPM Title:** Determine the Need for an APRM Gain adjust and Then Perform an APRM Gain Adjust

**JPM Number:** A-RO-28

**Revision Number:** 00

**Task Number and Title:** 44.001

Adjust APRM gains

**K/A Number and Importance:** 2.1.07 RO 4.4

Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation.

**Suggested Testing Environment:** Simulator/Mockup

**Alternate Path:**  Yes  No **SRO Only:**  Yes  No **Time Critical:**  Yes  No

**Reference(s):** LOS-NR-SR1, APRM Gain Adjustment, Rev. 7

**Actual Testing Environment:**  Simulator  Control Room  In-Plant  Other (Mockup)

**Testing Method:**  Simulate  Perform

**Estimated Time to Complete:** 20 minutes

**Actual Time Used:** \_\_\_\_\_ minutes

**EVALUATION SUMMARY:**

Were all the Critical Elements performed satisfactorily?  Yes  No

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

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

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

### **INITIAL CONDITIONS**

You are the Unit 1 Assist NSO.

Unit 1 is stable at approximately 85% power.

A rod pattern adjustment has just been completed.

No other tests or evolutions are in progress.

An OD 20 has just printed out.

The Process Computer is NOT available.

### **INITIATING CUE**

The Unit Supervisor directs you to review the OD 20 for Tech Spec compliance.

Report you findings/conclusions to the Unit 1 Supervisor.

# Exelon Nuclear

## Job Performance Measure

### LOG TECHNICAL SPECIFICATION TIMECLOCKS

JPM Number: A-RO-16

Revision Number: 06

Date: 08/31/2012

Developed By: \_\_\_\_\_  
Instructor Date

Validated By: \_\_\_\_\_  
SME or Instructor Date

Reviewed By: \_\_\_\_\_  
Operations Representative Date

Approved By: \_\_\_\_\_  
Training Department Date

## JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

**NOTE:** All steps of this checklist should be performed upon initial validation.  
Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

- \_\_\_\_\_ 1. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 2. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 3. Performance location specified. (in-plant, control room, simulator, or other)
- \_\_\_\_\_ 4. Initial setup conditions are identified.
- \_\_\_\_\_ 5. Initiating cue (and terminating cue if required) are properly identified.
- \_\_\_\_\_ 6. Task standards identified and verified by SME review.
- \_\_\_\_\_ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_
- \_\_\_\_\_ 9. Verify cues both verbal and visual are free of conflict.
- \_\_\_\_\_ 10. Verify performance time is accurate
- \_\_\_\_\_ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

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

## **Revision Record (Summary)**

**Revision 00**, New JPM

**Revision 01**, Made IBM computer inoperable at start of JPM with Unit Log already in progress, removed simulator setup instructions.

**Revision 02**, Added notes for possibility of common log entry and placing stickers on annunciators.

**Revision 03**, Added note in initiating cue for candidates to make log entries on scrap paper.

**Revision 04**, Adjusted LIS-WS-301 Rev.5 and replaced the old procedure OP-AA-105-102 with the new procedure OP-AA-111-101, Rev 3.

**Revision 05**, Updated to conform to latest revisions of LIS-WS-301, OP-AA-111-101, and ODCM.

**Revision 06**, Updated to conform to latest revisions of LIS-WS-301, OP-AA-111-101, and ODCM and JPM template for ILT 11-1 NRC Exam.

## SIMULATOR SETUP INSTRUCTIONS

1. No simulator setup required.
2. Prepare the following material:
  - JPM A-RO-16 Attachment 1:
    - IM Surveillance LIS-WS-301, Unit 1 Service Water Effluent Radiation Monitor Functional Test, Rev 7 (marked as completed by the US up to Step E.1.2).
    - A correctly completed work package (3 pages) for LIS-WS-301, signed by the SM or US on the “Shift Authorization to Start Work” line.
    - A Short Duration Time Clock form for Unit 1 LIS-WS-301 with the bottom line for REC 12.2.1 RA E.2 incorrectly omitted.
  - JPM A-RO-16 Attachment 2: A Short Duration Time Clock form for Unit 1 LIS-WS-301, correctly including a line for REC 12.2.1 RA E.2. (To be provided during JPM performance)
  - A copy of CY-LA-170-301, Offsite Dose Calculation Manual Part 1 RECs
  - A pad of paper to be used as the Unit 1 NSO Log.

### INITIAL CONDITIONS

Unit 1 is near rated conditions.

You are the Unit 1 NSO.

The computer system is down due to a server problem.

An Instrument Maintenance worker is ready to start LIS-WS-301 (which is on the schedule).

The procedure is complete up to Step E.1.2.

### INITIATING CUE

Review the Work Package provided.

When satisfied that it is correct, authorize the start of the surveillance per LIS-WS-301 Step E.1.2.

Enter the necessary information in the unit log.

Inform the Unit Supervisor when the Short Duration Time Clock has been started.

### EVALUATOR ONLY:

Provide the candidate with:

- JPM Attachment 1, Work Package
- A pad of paper to be used as the Unit 1 NSO Log.

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

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
1.	Review details of surveillance's interface with plant provided on Attachment B.	Details of surveillance's interface with plant, provided on Attachment B, is reviewed.	_____	_____	_____
*2.	VERIFY that the Short Duration Time Clock recorded in Step E.1.2.1 is correct per the ODCM, CY-LA-170-301.	Short Duration Time Clock recorded in Step E.1.2.1 is determined to be <b>incorrect</b> .  Identifies that CY-LA-170-301 Part 1, B.1, E.1 are correct and that E.2 is also applicable.	_____	_____	_____
<b>Cue:</b>	<b>As US, State to the examinee that you agree it's incorrect. If the candidate does not state what action it should be, request this information from the candidate.</b>  <b>If the candidate states actions B.1, E.1 and E.2, inform the candidate that you agree.</b>  <b>Provide the candidate with Attachment 2 of this JPM (a corrected SDTC).</b>  <b>Direct the candidate and proceed with the procedure.</b>				
<b>Note</b>	<b>Steps 3, 4 and 5 may occur in either order.</b>				
<b>Note</b>	<b>The candidate may identify annunciators by placing a sticker on the affected windows.</b>				
*3. LIS-WS-SR1 E.1.2.2	AUTHORIZE start of surveillance.	Time of authorization entered , initialed and dated in LIS-WS-301	_____	_____	_____
*4. OP-AA-111-101 Step 4.3.2.6	Log time clock in Unit Log Log entry made denoting start of surveillance	Enters procedure number (LIS-WS-301) and start time in the Unit 1 Log	_____	_____	_____
5.	Sign and record the Date and Time the time of authorization on the Work Order on the "Work Started" line	Work Order "Work Started" line signed and the date and time is recorded.	_____	_____	_____



<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
Cue:	As IM, acknowledge authorization. Wait until the Candidate/Unit NSO has completed logging the start of the surveillance and then: NOTIFY Unit NSO that the timeclock for Service Water Effluent Radiation Monitor 1D18-K608 must be started.				
*6.	Record the start time under TIME CLOCK START TIME on the Short Duration Time Clock form	TIME CLOCK START TIME recorded on the Short Duration Time Clock form for all 3 Tech Spec conditions	_____	_____	_____
<p style="text-align: center;"><b>Terminating Cue</b></p> <p>The JPM is considered complete at this time.</p>					

JPM Stop Time: \_\_\_\_\_  
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**JPM SUMMARY**

**Operator's Name:** \_\_\_\_\_

**Job Title:**  EO  RO  SRO  FS  STA/IA  SRO Cert

JPM Title: Log Technical Specification Time Clocks

JPM Number: A-RO-16

Revision Number: 06

Task Number and Title: 782.010

Review and make entries as NSO in the Main Control Room Log

K/A Number and Importance: 2.1.18 3.6/3.8

Ability to make accurate, clear, and concise logs, records, status boards, and reports.

Suggested Testing Environment: Simulator or Classroom

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

Reference(s): OP-AA-111-101, Operating Narrative Logs and Records, Rev. 8

LIS-WS-301, Unit 1 Service Water Effluent Radiation Monitor Functional Test, Rev.7

CY-LA-170-301, Offsite Dose Calculation Manual Part 1 RECs, Rev. 4

OP-AA-108-104, Technical Specification Compliance, Rev. 1

**Actual Testing Environment:**  Simulator  Control Room  In-Plant  Other

**Testing Method:**  Simulate  Perform

Estimated Time to Complete: 10 minutes

**Actual Time Used:** \_\_\_\_\_ minutes

**EVALUATION SUMMARY:**

Were all the Critical Elements performed satisfactorily?  Yes  No

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

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

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

### **INITIAL CONDITIONS**

Unit 1 is near rated conditions.

You are the Unit 1 NSO.

The computer system is down due to a server problem.

An Instrument Maintenance worker is ready to start LIS-WS-301 (which is on the schedule).

The procedure is complete up to Step E.1.2.

### **INITIATING CUE**

Review the Work Package provided.

When satisfied that it is correct, authorize the start of the surveillance per LIS-WS-301 Step E.1.2.

Enter the necessary information in the unit log.

Inform the Unit Supervisor when the Short Duration Time Clock has been started.

# Exelon Nuclear

## Job Performance Measure

### **Perform a partial LOS-CM-M1**

JPM Number: A-RO-29

Revision Number: 00

Date: 08/31/2012

Developed By: \_\_\_\_\_  
Instructor Date

Validated By: \_\_\_\_\_  
SME or Instructor Date

Reviewed By: \_\_\_\_\_  
Operations Representative Date

Approved By: \_\_\_\_\_  
Training Department Date

## JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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- \_\_\_\_\_ 4. Initial setup conditions are identified.
- \_\_\_\_\_ 5. Initiating cue (and terminating cue if required) are properly identified.
- \_\_\_\_\_ 6. Task standards identified and verified by SME review.
- \_\_\_\_\_ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_
- \_\_\_\_\_ 9. Verify cues both verbal and visual are free of conflict.
- \_\_\_\_\_ 10. Verify performance time is accurate
- \_\_\_\_\_ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

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

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

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

## **Revision Record (Summary)**

**Revision 00,** This JPM was developed NEW for the ILT 11-1 NRC Exam.

### SIMULATOR SETUP INSTRUCTIONS

1. Reset to IC 193, 100% power (NOTE: IC193 was saved from the 06/28/12 version of IC 81)  
 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.
2. Go to RUN.
3. Insert the following commands: (Commands contained in CAEP File JPM A-RO-29.cae)
  - **ior g8a65g2p 0.2** (At 1PMJ13J, makes Div 1 WR Suppression Pool Level read 0.2)
  - **ior g8a67g2p 0.2** (At 1PMJ13J, makes Div 2 WR Suppression Pool Level read 0.2)
  - **ior g1g55g1p -2.2** (At 1H13-P601, makes 1LI-CM032 WR Supp Pool Level read -1.3 ft)
  - **ior g8a51g1p 710** (At 1PMJ13J, makes 1LI-CM179 Cntnmt Floodup Level read 710)
4. Verify the following:
  - Simulator is in a steady state condition per Prerequisite B.2.
  - Verify necessary indicators/recorders readings at 1H13-P601
 

○ 1B21-R884A (RPV Pressure Recorder Div 1)	≈1003.8
○ 1B21-R884A (RPV Level Recorder Div 1)	18-24, (Avg 21)
○ 1B21-R884B (RPV Pressure Recorder Div 2)	≈1004.2
○ 1B21-R884B (RPV Level Recorder Div 2)	18-24, (Avg 21)
○ 1B21-R615 (Fuel Zone Level Recorder Div 1)	Blank (>-111)
○ 1B21-R610 (Fuel Zone Level Indicator Div 2)	-111
○ 1B21-R887 (WR RPV Level Indicator Div 1)	≈ +19
○ 1LI-CM032 (Suppression Pool Level Indicator, Div 1)	≈ -1.3 (Override)
○ 1LI-CM192 (Suppression Pool Level Indicator, Div 2)	≈ +0.5
○ 1PI-CM029 (WR DW Pressure Indicator Div 2)	≈ 0.0
○ 1PI-CM031 WR (DW Pressure Indicator Div 1)	≈ 0.0
  - Verify necessary indicators/recorders readings at 1H13-P603
 

○ 1B21-R604 (WR RPV Level Indicator Div 2)	≈+20
--	------
  - Verify necessary indicators/recorders readings at 1PM13J
 

○ 1LR-CM027 Pen #1 (Suppression Pool Level Recorder, Div 2)	≈ 0.2
○ 1LR-CM028 Pen #1 (Suppression Pool Level Recorder, Div 1)	≈ 0.2
○ 1LI-CM179 (Containment Floodup Level Indicator)	≈ 710 (Override)
○ 1TR-CM037B Pen #3 (Supp Chamber Air Temp Recorder Div 1)	≈ 77.9
○ 1TR-CM038B Pen #3 (Supp Chamber Air Temp Recorder Div 2)	≈ 77.9
○ 1PR-CM029 Pen #1 (DW Pressure Recorder Div 2)	≈ 0.1
○ 1PR-CM029 Pen #2 (WR DW Pressure Recorder Div 2)	≈ 0.0
○ 1PR-CM031 Pen #1 (DW Pressure Recorder Div 1)	≈ 0.13
○ 1PR-CM031 Pen #2 (WR DW Pressure Recorder Div 1)	≈ 0.0
○ 1PR-CM031 Pen #3 (Emergency Range DW Pressure Recorder)	≈ 0.1
○ 1RR-CM011 (Drywell Radiation Recorder Div 1)	≈ 9
○ 1RR-CM017 (Drywell Radiation Recorder Div 2)	≈ 6
  - Verify necessary indicators readings at 0PM14J
 

○ 1RIT-CM011 (Drywell Radiation Indication Div 1)	≈ 9
○ 1RIT-CM017 (Drywell Radiation Indication Div 2)	≈ 6
5. Provide the LOS-CM-M1

## INITIAL CONDITIONS

You are an Extra NSO.

Unit 1 is at rated power in steady state conditions.

## INITIATING CUE

Perform the Monthly Post Accident Monitoring Instrumentation Channel Check, LOS-CM-M1 Attachment 1A, Steps 1 through 6.

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. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the examinee had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

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

The timeclock starts when the candidate acknowledges the initiating cue.

.....



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

<u>STEP</u>  (LOS-CM-M1)	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
<b>NOTE</b>	<b>All steps are from LOS-CM-M1 Attachment 1A unless otherwise noted.</b>				
<b>1.</b> (1.1)	(RPV Pressure) RECORD the following readings and CALCULATE the differentials Recorder 1B21-R884A (Div 1). Reactor Vessel Pressure: _____psig  Recorder 1B21-R884B (Div 2). Reactor Vessel Pressure: _____psig  Differential Pressure: _____psig	Reactor Vessel Pressure accurately recorded from 1B21-R884A and 1B21-R884B.  Differential calculated to be less than 100 psig	_____	_____	_____
<b>2.</b> (2.1)	(Fuel Zone RPV Level) RECORD the following readings and CALCULATE the differentials for Function 2a, Fuel Zone Level. Panel 1H13-P601, Recorder 1B21-R615 (Div 1). Reactor Vessel Level: _____ inches  Panel 1H13-P601, Indicator 1B21-R610 (Div 2). Reactor Vessel Level: _____ inches  Differential Level: _____ inches	Fuel Zone RPV Levels accurately recorded from 1B21-R615 and 1B21-R610  Differential calculated to be less than 9 inches	_____	_____	_____

<b>STEP</b>  (LOS- CM-M1)	<b>ELEMENT</b>	<b>STANDARD</b>	<b>SAT</b>	<b>UNSAT</b>	<b>Comment Number</b>
<b>3.</b>  (2.2)	(Wide Range RPV Level) RECORD the following readings and CALCULATE the differentials for Function 2b, Wide Range Level. Panel 1H13-P601, Recorder 1B21-R884A (Div 1). Reactor Vessel Level: ___ inches Panel 1H13-P601, Recorder 1B21-R884B (Div 2). Reactor Vessel Level: ___ inches Panel 1H13-P601, Indicator 1B21-R887 (Div 1). Reactor Vessel Level: ___ inches Panel 1H13-P603, Indicator 1B21-R604 (Div 2). Reactor Vessel Level: ___ inches  Differential Level of above 4 instruments.  Differential Level: ___ inches	Wide Range RPV Levels accurately recorded from:  1B21-R884A 1B21-R884B 1B21-R887 and 1B21-R604  Differential calculated to be less than 10 inches	—	—	—
<b>4.</b>  (2.3)	VERIFY at least one recorder OPERABLE per Division. 1B21-R884A OR 1B21-R615 (Div 1) 1B21-R884B (Div 2)	For Div 1, 1B21-R884A or 1B21- R615 verified operable  For Div 2, 1B21-R884B verified operable	—	—	—
<b>NOTE</b>	<b>The out of limit Suppression Pool Water Level readings in Steps 3.1 and 3.2 may be addressed per LIMITATION D.1</b>				

<b>STEP</b> (LOS-CM-M1)	<b>ELEMENT</b>	<b>STANDARD</b>	<b>SAT</b>	<b>UNSAT</b>	<b>Comment Number</b>
*5. (3.1)	(Suppression Pool Water Level) RECORD the following readings and CALCULATE the differentials Panel 1PM13J Recorder 1LR-CM027 pen #1 (Div 2). Water Level: ____ feet Recorder 1LR-CM028 pen #1 (Div 1) Water Level: ____ feet Panel 1H13-P601 Indicator 1LI-CM032 (Div 1). Water Level: ____ feet Indicator 1LI-CM192 (Div 2). Water Level: ____ feet  Differential Level of above 4 instruments.  Differential Level: ____ feet	Suppression Pool Water Levels accurately recorded from:  1LR-CM027 pen #1 1LR-CM028 pen #1 1LI-CM032 and 1LI-CM192  Differential calculated to be greater than 1.0 feet	—	—	—
6. Limitation (D.1)	If an out of limit reading is obtained, and cannot be corrected, the surveillance procedure shall be completed and the remaining data recorded. <ul style="list-style-type: none"> <li>• An entry shall be made in the comments section of Attachment 1A</li> <li>• An entry shall be made in the unit log noting the deficiency.</li> <li>• Shift Manager shall be notified.</li> </ul>	Entry made in the comments section of Attachment 1A  Entry made in the unit log noting the deficiency.  Shift Management (Unit Supervisor or Shift Manager) notified that the differentials calculated in Step 3.1 are out of limit.			
<b>CUE</b>	<b>ROLE PLAY as Unit NSO: An entry will be made in the unit log noting the deficiency.</b>				
<b>NOTE</b>	<b>Although the procedures step says “Shift Manager”, a NSO/ANSO would be expected to notify the Unit Supervisor who would then notify the Shift Manager.</b>				
<b>CUE</b>	<b>ROLE PLAY as Shift Management: Acknowledge the report of the out of limit reading. Inform the candidate that you will determine the required conditions per Tech Spec and TRM. If notified as Unit Supervisor, you will notify the Shift Manager. If necessary, direct the candidate to continue the surveillance.</b>				

<u>STEP</u>  (LOS-CM-M1)	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
*7. (3.2)	<p>At Panel 1PM13J, COMPARE Containment Floodup Water Level Indicator, 1LI-CM179 to one of the applicable wide range suppression pool level instruments. ( 0 = 699'11")            Water Level: ____feet</p> <p>Wide Range Suppression Pool Level Instrument compared with:            (circle one)            1LR-CM027            1LR-CM028            1LI-CM032            1LI-CM192            Differential Level: feet            (Allowable Differential: 7.5 feet)</p>	<p>Containment Floodup Water Level accurately recorded from:            1LI-CM179            Differential calculated to be greater than 7.5 feet</p>	---	---	---
8. Limitation (D.1)	<p>If an out of limit reading is obtained, and cannot be corrected, the surveillance procedure shall be completed and the remaining data recorded.</p> <ul style="list-style-type: none"> <li>An entry shall be made in the comments section of Attachment 1A</li> <li>An entry shall be made in the unit log noting the deficiency.</li> <li>Shift Manager shall be notified.</li> </ul>	<p>Entry made in the comments section of Attachment 1A            Entry made in the unit log noting the deficiency.            Shift Management (Unit Supervisor or Shift Manager) notified that the differentials calculated in Step 3.1 are out of limit.</p>			
<b>CUE</b>	<b>ROLE PLAY as Unit NSO: An entry will be made in the unit log noting the deficiency.</b>				
<b>NOTE</b>	<b>Although the procedures step says "Shift Manager", a NSO/ANSO would be expected to notify the Unit Supervisor who would then notify the Shift Manager.</b>				
<b>CUE</b>	<b>ROLE PLAY as Shift Management: Acknowledge the report of the out of limit reading. Inform the candidate that you will determine the required conditions per Tech Spec and TRM. If notified as Unit Supervisor, you will notify the Shift Manager.</b>				

<b>STEP</b>  (LOS-CM-M1)	<b>ELEMENT</b>	<b>STANDARD</b>	<b>SAT</b>	<b>UNSAT</b>	<b>Comment Number</b>
<b>9.</b> Limitation (D.1)	<ul style="list-style-type: none"> <li>And the unit shall be placed in a condition as specified by Tech Spec.</li> </ul>	Unit to be placed in a condition as specified by Tech Spec is verified (per cue from Shift Manager)			
<b>10.</b> (4.1)	<p>(Supp Chamber Air Temp)            RECORD the following readings and CALCULATE the differentials            Recorder 1TR-CM037B Pen #3 (Div 1). Air Temperature: ___°F</p> <p>Recorder 1TR-CM038B Pen #3 (Div 2). Air Temperature: ___°F</p> <p>Differential Temperature: ___°F</p>	<p>Suppression Chamber Air Temps accurately recorded from:            1TR-CM037B            and            1TR-CM038B</p> <p>Differential calculated to be less than 10 °F</p>	---	---	---
<b>11.</b> (5.1)	<p>(Narrow Range Drywell Pressure)            At Panel 1PM13J, RECORD the following readings and CALCULATE the differentials for Function 4a, Narrow Range Pressure.            Recorder 1PR-CM029 pen #1 (Div 2).Drywell Pressure: ___psig            Recorder 1PR-CM031 pen #1 (Div 1).Drywell Pressure: ___psig            Differential Pressure: ___psig</p>	<p>Narrow Range Drywell Pressures accurately recorded from:            1PR-CM029            and            1PR-CM031</p> <p>Differential calculated to be less than 0.3 psig</p>	---	---	---
<b>12.</b> (5.2)	<p>(Wide Range Drywell Pressure)            RECORD the following readings and CALCULATE the differentials for Function 4b, Wide Range Pressure            Panel 1PM13J            Recorder 1PR-CM029 pen #2 (Div 2). DW Pressure: ___psig            Recorder 1PR-CM031 pen #2 (Div 1).DW Pressure: ___ psig            Panel 1H13-P601            Indicator 1PI-CM029 (Div 2).            Drywell Pressure: ___psig            Indicator 1PI-CM031 (Div 1).            Drywell Pressure: ___psig</p> <p>Differential Pressure of above 4 instruments.            Differential Pressure: psig</p>	<p>Wide Range Drywell Pressures accurately recorded from:            1PR-CM029            1PR-CM031            1PI-CM029            and            1PI-CM031</p> <p>Differential of 4 instruments calculated to be less than 5 psig</p>	---	---	---

<b>STEP</b> (LOS- CM-M1)	<b>ELEMENT</b>	<b>STANDARD</b>	<b>SAT</b>	<b>UNSAT</b>	<b>Comment Number</b>
<b>13.</b> (5.3)	At Panel 1PM13J, COMPARE Drywell Pressure Emergency Range indication recorder, 1PR-CM031 pen #3, to one of the applicable Wide Range Drywell Pressure instruments. Drywell Pressure: ___psig Differential Pressure: ___psig  Wide Range Drywell Pressure instrument compared with: (circle one) 1PR-CM029, Pen 2 1PR-CM031, Pen 2 1PI-CM029 1PI-CM031	Emergency Range DW Pressure accurately recorded from:  1PR-CM031 pen #3  Differential calculated to be less than 5 psig	—	—	—
<b>14.</b> (6.1)	RECORD the following readings and CALCULATE the Ratios. Recorder 1RR-CM011 on 1PM13J (Div 1). Drywell Gross Gamma Radiation: ___ R/hr Recorder 1RR-CM017 on 1PM13J (Div 2). Drywell Gross Gamma Radiation: ___ R/hr  CALCULATE Ratio of Radiation readings. <u>Low Value</u> High Value	Drywell Gross Gamma Radiation readings accurately recorded from:  1RR-CM011 and 1RR-CM017  Ratio of Radiation readings calculated to be less than 5 R/hr			
<b>15.</b> (6.2)	RECORD the following readings and CALCULATE the Ratios. Indicator 1RIT-CM011 on 0PM14J (Div 1). Drywell Gross Gamma Radiation: ___ R/hr Indicator 1RIT-CM017 on 0PM14J (Div 2). Drywell Gross Gamma Radiation: ___ R/hr CALCULATE Ratio of Radiation readings. <u>Low Value</u> High Value	Drywell Gross Gamma Radiation readings accurately recorded from:  1RIT-CM011 and 1RIT-CM017  Ratio of Radiation readings calculated to be less than 5 R/hr			
<b>TERMINATING CUE:</b> <b>This completes this JPM.</b>					

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

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

### JPM SUMMARY

**Operator's Name:** \_\_\_\_\_

**Job Title:**  EO  RO  SRO  FS  STA/IA  SRO Cert

JPM Title: Perform a partial LOS-CM-M1

JPM Number: A-RO-29

Revision Number: 00

Task Number and Title: 92.020

Perform the Monthly Accident Monitoring Instrumentation Channel Check

K/A Number and Importance: 2.2.44 4.2/4.4

Ability to interpret control room indications to verify the status and operation of a system, and understand how operator actions and directives affect plant and system conditions.

Suggested Testing Environment: Simulator

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

Reference(s):

LOS-CM-M1 Monthly Accident Monitoring Instrumentation Channel Check, Rev. 39

**Actual Testing Environment:**  Simulator  Control Room  In-Plant  Other

**Testing Method:**  Simulate  Perform

Estimated Time to Complete: 15 minutes

**Actual Time Used:** \_\_\_\_\_ minutes

#### EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily?  Yes  No

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

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

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

### **INITIAL CONDITIONS**

You are an Extra NSO.

Unit 1 is at rated power in steady state conditions.

### **INITIATING CUE**

Perform the Monthly Post Accident Monitoring Instrumentation Channel Check, LOS-CM-M1 Attachment 1A, Steps 1 through 6.



# Exelon Nuclear

## Job Performance Measure

### **Determine Prerequisites For Performing A Containment Purge Are Not Met**

JPM Number: A-RO-09

Revision Number: 03

Date: 08/31/2012

Developed By: \_\_\_\_\_  
Instructor Date

Validated By: \_\_\_\_\_  
SME or Instructor Date

Reviewed By: \_\_\_\_\_  
Operations Representative Date

Approved By: \_\_\_\_\_  
Training Department Date

## JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

**NOTE:** All steps of this checklist should be performed upon initial validation.  
Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

- \_\_\_\_\_ 1. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 2. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 3. Performance location specified. (in-plant, control room, simulator, or other)
- \_\_\_\_\_ 4. Initial setup conditions are identified.
- \_\_\_\_\_ 5. Initiating cue (and terminating cue if required) are properly identified.
- \_\_\_\_\_ 6. Task standards identified and verified by SME review.
- \_\_\_\_\_ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_
- \_\_\_\_\_ 9. Verify cues both verbal and visual are free of conflict.
- \_\_\_\_\_ 10. Verify performance time is accurate
- \_\_\_\_\_ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

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

## **Revision Record (Summary)**

**Revision 03,** Updated to current procedures and template for ILT 11-1 NRC Exam

### **SIMULATOR SETUP INSTRUCTIONS**

1. This JPM can be run from any IC.
2. Start Unit 1 Primary Containment Vent and Purge System per LOP-VQ-02.
3. This completes the setup for this JPM.

### **MATERIALS**

1. The following procedure(s) is(are) required to be available should the candidate request it:
  - LOP-VQ-04, Special Operations/Modes of the Primary Containment Vent and Purge System
2. The following is required to be provided to the candidate with the initial conditions sheet:
  - A marked up copy of an ODCM that will have expired prior to administration of the JPM.

### INITIAL CONDITIONS

- Unit 1 is in cold shutdown.
- You are an Assist NSO.
- The DW Equipment Hatch is closed.
- Today is October 22, 2012.

### INITIATING CUE

The Unit Supervisor has directed you to purge Unit 1 drywell IAW LOP-VQ-04.  
Inform the Unit Supervisor when the purge has been initiated.

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.

This JPM may be performed in the simulator or the Control Room.

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.

.....

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

<b>STEP</b> (LOP-VQ-04)	<b>ELEMENT</b>	<b>STANDARD</b>	<b>SAT</b>	<b>UNSAT</b>	<b>Comment Number</b>
1.	Obtain copy of procedure.	Procedure identified and copy made/requested.	—	—	—
2. (E.9.1)	VERIFY Section E.1 complete	Section E.1 determined to be complete.	—	—	—
<b>Note</b>	<b>If the candidate identifies the invalid ODCM prior to making the log entry, Step 3 is not applicable.</b>				
3. (E.9.2)	RECORD the following in the Control Room Log: <ul style="list-style-type: none"> <li>• Receipt of an ODCM for the applicable unit.</li> <li>• Time and date that the ODCM expires.</li> </ul>	Control Room Log entries made for: <ul style="list-style-type: none"> <li>• Receipt of an ODCM</li> <li>• Expiration date for ODCM</li> </ul>	—	—	—
*4.	Determine that the ODCM expiration date has passed.	Expiration of ODCM determined.	—	—	—
*5.	Procedure stopped and Unit Supervisor notified of expired ODCM.	Procedure stopped and Unit Supervisor notified prior to opening 1VQ034, DW Vent/Purge Otl't Upstrm Isol Vlv.	—	—	—
<b>Terminating Cue</b>					
<b>Acknowledge report. The JPM is considered complete at this time.</b>					

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



### JPM SUMMARY

**Operator's Name:** \_\_\_\_\_

**Job Title:**  EO  RO  SRO  FS  STA/IA  SRO Cert

JPM Title: Determine Prerequisites for Performing A Containment Purge Are Not Met

JPM Number: A-RO-09

Revision Number: 03

Task Number and Title: 425.050

Evaluate plant conditions and purge the Drywell with nitrogen or air for hydrogen control

K/A Number and Importance: 2.3.14, 3.4/3.8

Knowledge of radiation or contamination hazards that may arise during normal, abnormal, or emergency conditions or activities.

Suggested Testing Environment: Simulator

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

Reference(s): LOP-VQ-04, Startup, Shutdown, and Operations of the Primary Containment Vent and Purge system, Rev. 33

**Actual Testing Environment:**  Simulator  Control Room  In-Plant  Other

**Testing Method:**  Simulate  Perform

Estimated Time to Complete: 10 minutes

**Actual Time Used:** \_\_\_\_\_ minutes

#### EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily?  Yes  No

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

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

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

ATTACHMENT 1

OFFSITE DOSE CALCULATION FOR DRYWELL PURGE

UNIT ONE

Station Vent Stack

Drywell Noble

Noble Gas Sample Date/Time 10/19/12 / 0833

Gas Sample Date/Time 10/19/12 / 0833

Station Vent Stack

Drywell Tritium

Tritium Sample Date/Time 10/19/12 / 0840

Sample Date/Time 10/19/12 / 0810

NOBLE GAS ISOTOPE	STATION VENT STACK NOBLE GAS RELEASE RATE ( $\mu\text{Ci/sec}$ )	+	DRYWELL NOBLE GAS RELEASE RATE $\mu\text{Ci/sec} = \mu\text{Ci/cc} \times 5.1\text{E6 cc/sec}$ ( $\mu\text{Ci/sec}$ )	=	TOTAL NOBLE GAS RELEASE RATE PER ISOTOPE ( $\mu\text{Ci/sec}$ )
KR-85M	1.76E+01	+	0.00E+00	=	1.76E+01
KR-88	2.41E+01	+	0.00E+00	=	2.41E+01
XE-133	5.76E+01	+	0.00E+00	=	5.76E+01
XE-135	2.29E+01	+	0.00E+00	=	2.29E+01
		+		=	
		+		=	
		+		=	
TOTAL NOBLE GAS RELEASE RATE ( $\mu\text{Ci/sec}$ )				=	1.22E+02
	STATION VENT STACK TRITIUM (H3) $\mu\text{Ci/sec} = \mu\text{Ci/ml} \times \text{cfm} \times 472$	+	DRYWELL TRITIUM (H3) $\mu\text{Ci/sec} = \mu\text{Ci/ml} \times 5.1\text{E6 ml/sec}$	=	TOTAL TRITIUM (H3) RELEASE RATE ( $\mu\text{Ci/sec}$ )
	5.84E-01	+	2.58E-02	=	6.10E-01
					TOTAL RELEASE RATE
TOTAL NOBLE GAS RELEASE RATE $\mu\text{Ci/sec}$ + TOTAL TRITIUM RELEASE RATE $\mu\text{Ci/sec}$					1.23E+02 $\mu\text{Ci/sec}$
					TOTAL RELEASE ACTIVITY
TOTAL RELEASE RATE $\mu\text{Ci/sec} \times 86,400 \text{ sec} =$					1.06E+07 $\mu\text{Ci}$

**Note: If total activity to be released exceeds 1.0 E9  $\mu\text{Ci}$  notify Shift Manager immediately and Do Not start the purge.**

Calculations Performed by

*Chem Tech*

Date/Time 10/19/12 1400

Purge Performed (Check One)  
(Shift Supervisor)

(Signature)

Yes  No

Calculations

Valid until: Date/Time 10/20/12 1410  
(30 hours from earliest Drywell sample)

Start: Date/Time/Signature \_\_\_\_\_

Finish: Date/Time/Signature \_\_\_\_\_

Reviewed by: Signature/Date  
(Chemistry Management) \_\_\_\_\_

**Forward Completed Form to ODCM Specialist (Chem)**

Reviewed by:  
(ODCM Specialist)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



### **INITIAL CONDITIONS**

- Unit 1 is in cold shutdown.
- You are an Assist NSO.
- The DW Equipment Hatch is closed.
- Today is October 22, 2012.

### **INITIATING CUE**

The Unit Supervisor has directed you to purge Unit 1 drywell IAW LOP-VQ-04.  
Inform the Unit Supervisor when the purge has been initiated.

# Exelon Nuclear

## Job Performance Measure

### Handling Personnel Injuries

JPM Number: A-SRO-35

Revision Number: 01

Date: 08/31/2012

Developed By: \_\_\_\_\_  
Instructor Date

Validated By: \_\_\_\_\_  
SME or Instructor Date

Reviewed By: \_\_\_\_\_  
Operations Representative Date

Approved By: \_\_\_\_\_  
Training Department Date

## JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

**NOTE:** All steps of this checklist should be performed upon initial validation.  
Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

- \_\_\_\_\_ 1. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 2. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 3. Performance location specified. (in-plant, control room, simulator, or other)
- \_\_\_\_\_ 4. Initial setup conditions are identified.
- \_\_\_\_\_ 5. Initiating cue (and terminating cue if required) are properly identified.
- \_\_\_\_\_ 6. Task standards identified and verified by SME review.
- \_\_\_\_\_ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_
- \_\_\_\_\_ 9. Verify cues both verbal and visual are free of conflict.
- \_\_\_\_\_ 10. Verify performance time is accurate
- \_\_\_\_\_ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

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

## **Revision Record (Summary)**

1. **Revision 00:** This JPM was written by G. W. Beale for the 2005 NRC Annual Examination.
2. **Revision 01:** Updated to current procedures and JPM Template for ILT 11-1 NRC Exam. Revision includes a major modification to the initiating cue.

## **MATERIALS**

1. The following procedures are required to be available should the student request them:
  - a. A blank LAP-911-1 Attachment A Form
  - b. LAP 950-3, Handling Personnel Injuries
  - c. LAP-911-1, Reporting Emergencies

## INITIAL CONDITIONS

You are the Unit 1 Supervisor.

- It is a normal working day.
- Unit-1 is at near rated conditions.
- Unit-1 Reactor Water Cleanup (RWCU) is being returned to service following maintenance.
- The Emergency Phone is ringing at Extension 2211.

## INITIATING CUE

Respond to the incoming phone message at extension 2211.

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

### Information For Evaluator's Use:

UNSAT requires written comments on respective step.

- \* Denotes critical steps.
- Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section 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.

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

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
<b>NOTE</b>	<p>It is NOT the intent of this JPM to have the examinee complete the ENS Form. Therefore, IF during the performance of this JPM the examinee begins to work on the ENS Form, THEN tell the examinee “The Unit-2 Unit Supervisor will fill out the ENS form for you.”</p>				
1.	Respond to the incoming phone message at extension 2211.	Call on Extension 2211 answered	—	—	—
<b>CUE</b>	<p><b>Role Play as the RP Tech supporting the RWCU work, and provide the following report:</b></p> <ul style="list-style-type: none"> <li>• This is TOM DORAN calling from Extension 2344 at the Unit 1 RWCU Heat Exchanger Room.</li> <li>• JOHN JONES, an EO supporting the RWCU job has been injured.           <ul style="list-style-type: none"> <li>○ The other EO thinks that the A RWCU Non-Regenerative Heat Exchanger Tube Side Relief Valve (1G33-F341A) lifted and subsequently closed.</li> <li>○ Jones leaned on the relief valve’s tail pipe and received at least a 2<sup>nd</sup> degree burn on his left arm.</li> </ul> </li> <li>• Jones is out of the Heat Exchanger Room and across the step off pad.</li> <li>• He is NOT contaminated.</li> <li>• He is in severe pain and may be going into shock.</li> </ul> <p>Verify correct repeat back.</p>				
<b>CUE</b>	<p>When student demonstrates ability to obtain current controlled copy of LAP-911-1 Attachment A, provide a (Yellow) blank copy of this form.</p>				
2. LAP-911-1 Step B.3.1	Select the appropriate emergency checklist:	Candidate selects LAP-911-1 Attachment A “Onsite Emergency”	—	—	—

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
<p><b>3.</b> LAP-911-1 Attachment A</p>	<p>Record the necessary information in the General Information section of Attachment A:</p> <ul style="list-style-type: none"> <li>• Date</li> <li>• Time</li> <li>• Name of Caller</li> <li>• Location of Emergency</li> <li>• Telephone number of caller</li> <li>• Nature of Emergency</li> <li>• Extent of Damage or Injuries</li> </ul>	<p>General Information recorded:</p>	<p>—</p>	<p>—</p>	<p>—</p>
<p><b>4.</b> LAP-911-1 Attachment A</p>	<p>Record the necessary information in the “Personnel Accident, Injury, or Illness” section of Attachment A:</p> <ul style="list-style-type: none"> <li>• Number of Injured?</li> <li>• Radiologically contaminated?</li> <li>• Can injured be moved?</li> <li>• Confined space rescue?</li> </ul>	<p>“Personnel Accident, Injury, or Illness” information recorded:</p>	<p>—</p>	<p>—</p>	<p>—</p>
<p><b>*5.</b> LAP-911-1 Attachment A Step 1</p>	<p>Notify the Shift Manager</p>	<p>Shift Manager notified (Critical due to Reportability time requirements)</p>	<p>—</p>	<p>—</p>	<p>—</p>
<p><b>CUE</b></p>	<p><b>ROLE PLAY as the Shift Manager to receive this report.</b>  <b>Inform the candidate that you will perform notifications per OP-AA-106-101, OP-AA-106-101-1001, and SA-AA-123.</b></p>				



<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
<b>NOTE</b>	<b>It is not the intent of this JPM to exercise SA-AA-123 “Injury and Illness Reporting and Recordkeeping”, which is essentially a record of the investigation into the incident.</b>				
<b>6.</b> LAP-911-1 Attachment A Step 2	Initiate the applicable actions and notifications of: LAP-950-3 and SA-AA-123	Demonstrates ability to obtain current controlled copies of LAP-950-3	—	—	—
<b>CUE</b>	<b>When student demonstrates ability to obtain current controlled copy of the procedure, then provide the candidate with a (Yellow) JPM copy of LAP-950-3.</b>				
<b>NOTE</b>	<b>Steps 3 &amp; 4 of the Personnel Accident, Injury, or Illness section of Attachment A apply only to Confined space rescues.</b>				
<b>*7.</b> LAP-950-3 Step E.1.4.1	NOTIFY the Rad Protection Department at 2241 for radiological assistance as necessary.	Correct extension, 2241, provided  And Rad Protection Department notified	—	—	—
<b>CUE</b>	<b>Respond as Rad Protection and tell the US that they will respond.</b>				
<b>*8.</b> LAP-950-3 Step E.1.4.1	NOTIFY the Nurse at 4204 for first aid	Correct extension. 4204, provided  and Nurse notified	—	—	—
<b>CUE</b>	<b>Respond as Nurse and tell the US that they will respond with first aide.</b>				
<b>9.</b> LAP-950-3 Step E.1.4.2	DESIGNATE an individual to assume command and control at the accident scene or where individual has taken ill. This will normally be the Field Supervisor.	Examinee designates an individual (probably the Field Supervisor) to take command and control.	—	—	—

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
<b>CUE</b>	<b>Respond as the designated individual and inform the US that you have command and control.</b>				
*10. LAP-950-3 Step E.1.4.3	NOTIFY the Seneca Emergency Services at (815) 357-6442 to send an ambulance to the station.	Examinee provides the correct phone number (815) 357-6442 for Seneca Emergency Services and requests an ambulance be sent to the station.	—	—	—
<b>CUE</b>	<b>Respond as Seneca Emergency Services and say the ambulance will be at LaSalle Station in 15 minutes.</b>				
11. LAP-950-3 Step E.1.4.3.1	<p>VERIFY Seneca Emergency Services has sent an ambulance to the station within 15 minutes by:</p> <p>Call-back from Seneca Emergency Services stating that an ambulance is in route.</p> <p>Calling the Seneca Emergency Services and requesting the status of the ambulance requested.</p>	Examinee receives information that ambulance will be at the station in 15 minutes.	—	—	—
<b>CUE</b>	<b>Respond as Seneca Emergency Services and say the ambulance is on its way</b>				
<b>NOTE</b>	<b>Step E.1.4.3.2 is not applicable because Seneca Emergency Services has been contacted.</b>				

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
*12. LAP-950-3 Step E.1.4.4	NOTIFY security at 2940 that an ambulance has been called to respond to the Station.	Correct extension, 2940, provided  And  Security informed that an ambulance will arrive at the Station	—	—	—
<b>CUE</b>	<b>Respond as Security and inform US that the ambulance will be allowed through the MAF.</b>				
13. LAP-950-3 Step E.1.4.5	VERIFY the status of the victim from Field Supervisor, Nurse or Rad Protection at the scene.	Examinee contacts the Field Supervisor, Nurse or Rad Protection for status of the EO.	—	—	—
<b>CUE</b>	<b>Respond Field Supervisor, Nurse or Rad Protection that:  The EO has second degree burns.  The EO has gone into shock and is <u>now unconscious</u>.  Rad Protection has verified that the EO is not contaminated.  The Site Nurse is treating him now.</b>				
14. LAP-950-3 Step E.1.4.6	VERIFY with Rad Protection whether or not the victim is leaving the station contaminated prior to calling the hospital.	Examinee marks this step as completed based on the previous CUE	—	—	—
*15. LAP-950-3 Step E.1.4.7 & (Caution)	NOTIFY the appropriate hospital:  CAUTION: Personnel who are unconscious or have potentially life threatening injuries or illness should be taken to Morris Community Hospital	A correct phone number provided for Morris Community Hospital  (815) 942-6837  or  (815) 942-2932	—	—	—

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
<b>CUE</b>	<b>ROLE PLAY as Morris Community Hospital as necessary. Come to the phone as the Nursing Supervisor and ROLE PLAY as necessary to receive the next report.</b>				
<b>16.</b> LAP-950-3 Step E.1.4.7	INFORM the individual answering the phone to put you in contact with the Nursing Supervisor immediately.  The Nursing Supervisor must be told:  the nature or extent of the injury and  if the person is not contaminated, potentially contaminated or contaminated.	Nursing Supervisor informed of:  The extent of the injury and  That the individual is NOT contaminated	—	—	—
<b>17.</b> LAP-950-3 Step E.1.4.8	ENSURE notifications are performed per OP-AA-106-101 if the injured person being transported to the hospital is contaminated or potentially contaminated.	OP-AA-106-101 notifications verified by contacting Shift Manager	—	—	—
<b>CUE</b>	<b>ROLE PLAY Shift Manager. Report that the OP-AA-106-101 notifications have been completed.</b>				
<b>18.</b> LAP-950-3 Step E.1.4.9	ENSURE notification of the cognizant Department Head for Exelon employees or the Contractor Supervisor for contractor personnel.	Operations Director notified about the injured EO	—	—	—
<b>CUE</b>	<b>ROLE PLAY Operations Director as necessary to acknowledge this report.</b>				

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
<b>19.</b> LAP-950-3 Step E.1.4.10	<b>ENSURE</b> a management representative is assigned to accompany injured Exelon personnel to the hospital.  During normal working hours the Department Head should designate the management employee	The management representative assigned to accompany injured Exelon personnel to the hospital is identified	—	—	—
<b>CUE</b>	<b>ROLE PLAY Operations Director as necessary.</b> <b>Respond that the SOS has been directed to accompany the injured EO to the hospital.</b>				
<b>CUE</b>	<b>Report that the ambulance has arrived onsite and the burned EO has been evacuated.</b> <b>Inform the student that this JPM is complete. Enter the JPM Stop Time in the blank provided below.</b>				

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



**JPM SUMMARY**

**Operator's Name:** \_\_\_\_\_

**Job Title:**  EO  RO  SRO  FS  STA/IA  SRO Cert

JPM Title: Handling Personnel Injuries

JPM Number: A-SRO-35

Revision Number: 01

Task Number and Title: 722.010

Complete the required administrative sections related to a personnel injury

K/A Number and Importance: 2.1.08 SRO 4.1

Ability to coordinate personnel activities outside the control room.

Suggested Testing Environment: Simulator or Classroom

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

Reference(s):

LAP 911-1, Reporting Emergencies, Rev. 6

LAP 950-3, Handling Personnel Injuries, Rev. 6

**Actual Testing Environment:**  Simulator  Control Room  In-Plant  Other

**Testing Method:**  Simulate  Perform

Estimated Time to Complete: 15 minutes

**Actual Time Used:** \_\_\_\_\_ minutes

**EVALUATION SUMMARY:**

Were all the Critical Elements performed satisfactorily?  Yes  No

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

**Comments:** \_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_

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

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

### **INITIAL CONDITIONS**

You are the Unit 1 Supervisor.

- It is a normal working day.
- Unit-1 is at near rated conditions.
- Unit-1 Reactor Water Cleanup (RWCU) is being returned to service following maintenance.
- The Emergency Phone is ringing at Extension 2211.

### **INITIATING CUE**

Respond to the incoming phone message at extension 2211.

# Exelon Nuclear

## Job Performance Measure

### **Determine Reporting Requirements per OP-AA-106-101 (Offsite Siren Failure)**

JPM Number: A-SRO-22

Revision Number: 01

Date: 08/31/2012

Developed By: \_\_\_\_\_  
Instructor Date

Validated By: \_\_\_\_\_  
SME or Instructor Date

Reviewed By: \_\_\_\_\_  
Operations Representative Date

Approved By: \_\_\_\_\_  
Training Department Date



## JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

**NOTE:** All steps of this checklist should be performed upon initial validation.  
Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

- \_\_\_\_\_ 1. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 2. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 3. Performance location specified. (in-plant, control room, simulator, or other)
- \_\_\_\_\_ 4. Initial setup conditions are identified.
- \_\_\_\_\_ 5. Initiating cue (and terminating cue if required) are properly identified.
- \_\_\_\_\_ 6. Task standards identified and verified by SME review.
- \_\_\_\_\_ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_
- \_\_\_\_\_ 9. Verify cues both verbal and visual are free of conflict.
- \_\_\_\_\_ 10. Verify performance time is accurate
- \_\_\_\_\_ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

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

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

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

## **Revision Record (Summary)**

**Revision 01,** Updated to current procedures and template for ILT 11-1 NRC Exam.

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)
  - OP-AA-106-101, Significant Event Reporting

### INITIAL CONDITIONS

- You are the Shift Manager.
- It is a normal working day.
- During a routine inspection of offsite alert sirens, it has been discovered that 15 out of 50 sirens are failed.

### INITIATING CUE

Determine any reportability and notification requirements.

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.

The timeclock starts when the candidate acknowledges the initiating cue.

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

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment</u>
*1.	Determine reporting requirements IAW: Exelon Reportability Reference Manual, LS-AA-1020 and/or Reportable Event SAF 1.1 Declaration, LS-AA-1110	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 OP-AA-106-101, Significant Event Reporting Attachment 1 (ENS) Or Attachment 2 (Reporting to NRC via ENS)	Notification of following individuals determined to be required: <ul style="list-style-type: none"> <li>• Site VP</li> <li>• Plant Manager</li> <li>• Operations Director</li> <li>• Nuclear Duty Officer</li> <li>• Experience Assessment / Regulatory Assurance Manager</li> <li>• Senior Resident Inspector</li> <li>• Site Nuclear Oversight Manager</li> </ul>	—	—	—
<b>Terminating Cue</b> <b>Acknowledge report. The JPM is considered complete at this time.</b>					

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



**JPM SUMMARY**

**Operator's Name:** \_\_\_\_\_

**Job Title:**  EO  RO  SRO  FS  STA/IA  SRO Cert

JPM Title: Determine Reporting Requirements per OP-AA-106-101 (Offsite Siren Failure)

JPM Number: A-SRO-22 Revision Number: 01

Task Number and Title: 604.010

Determine Notification Requirements

K/A Number and Importance: 2.1.18, SRO 3.8

Ability to make accurate, clear and concise Logs, records, status boards and reports

Suggested Testing Environment: Simulator

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

Reference(s):

OP-AA-106-101, Significant Event Reporting, Rev. 14

LS-AA-1110, Reportable Event SAF 1.1 Declaration, Rev. 17

LS-AA-1020, Reportability Reference Manual Volume 1 Table SAF, Rev. 19

**Actual Testing Environment:**  Simulator  Control Room  In-Plant  Other

**Testing Method:**  Simulate  Perform

Estimated Time to Complete: 25 minutes **Actual Time Used:** \_\_\_\_\_ minutes

**EVALUATION SUMMARY:**

Were all the Critical Elements performed satisfactorily?  Yes  No

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

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

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

### **INITIAL CONDITIONS**

- You are the Shift Manager.
- It is a normal working day.
- During a routine inspection of offsite alert sirens, it has been discovered that 15 out of 50 sirens are failed.

### **INITIATING CUE**

Determine any reportability and notification requirements.

# Exelon Nuclear

## Job Performance Measure

### **Review Temporary Change Tracking Logs and Report Findings to Shift Manager**

JPM Number: A-SRO-36

Revision Number: 01

Date: 08/31/2012

Developed By: \_\_\_\_\_  
Instructor Date

Validated By: \_\_\_\_\_  
SME or Instructor Date

Reviewed By: \_\_\_\_\_  
Operations Representative Date

Approved By: \_\_\_\_\_  
Training Department Date



## JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

**NOTE:** All steps of this checklist should be performed upon initial validation.  
Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

- \_\_\_\_\_ 1. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 2. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 3. Performance location specified. (in-plant, control room, simulator, or other)
- \_\_\_\_\_ 4. Initial setup conditions are identified.
- \_\_\_\_\_ 5. Initiating cue (and terminating cue if required) are properly identified.
- \_\_\_\_\_ 6. Task standards identified and verified by SME review.
- \_\_\_\_\_ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_
- \_\_\_\_\_ 9. Verify cues both verbal and visual are free of conflict.
- \_\_\_\_\_ 10. Verify performance time is accurate
- \_\_\_\_\_ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

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

## Revision Record (Summary)

1. **Revision 00**, This JPM was written by J.E. Ross for 2003-01 ILT Certification Exam given on the week of 02/07/2005. It was modeled after LaSalle County Station JPM A-SRO-26.
2. **Revision 01**, Updated to current procedures and JPM template for the ILT 11-1 NRC Exam.

## **MATERIALS**

The following materials are attached to this JPM.

- A (FAULTED) copy of the Temporary Change Tracking Log
  - Dates modified for upcoming administration
- A (FAULTED) copy of the Unit 2 Temporary Alteration Tracking Log – Active for Temporary Changes via Procedures Only (P-MOD Log)
  - Dates modified for upcoming administration

The following material may be located and utilized by the examinee:

- Any procedure that would normally be available in the control room while performing the duties of on-shift, licensed personnel.
- CC-AA-112, Temporary Configuration Changes
- CC-MW-112-1001, Temporary Configuration Change Packages

## INITIAL CONDITIONS

You are an extra licensed SRO.

The Master Startup Checklist is being performed for Unit 2.

Mode change to Mode 2 is scheduled for next shift.

## INITIATING CUE

The Shift Manager has requested that you review the Temporary Change Tracking Logs and look for discrepancies.

Report your findings to the Shift Manager.

Note: For privacy reasons, the initials of personnel are purposely used instead of full names for this JPM.

NOTE: After giving the Initiating Cue, hand the student the following:

Temporary Change Tracking Log, Attachment 5 of CC-MW-112-1001

Temporary Changes via Procedures Only (P-MOD Log)

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

.....

### Information For Evaluator's Use:

**This JPM has one critical task. However, due to the importance of maintenance rule and its proper administration under law, this JPM is deemed to be appropriate.**

UNSAT requires written comments on respective step.

- \* Denotes critical steps.
- Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section 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.

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

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
<b>CUE</b>	<b>If requested, tell the student to use today's date and time while performing this JPM.</b>				
<b>1.</b>	Obtain current copy of the appropriate procedure.	Demonstrates ability to obtain current copy of procedure.	—	—	—
<b>*2.</b>	Review the Temporary Change Tracking Log for discrepancies.	Reviews the Temporary Change Tracking Log and Identifies that the VP Ductwork W/O 1253372-29 must be restored prior to startup (Change to Mode 2)	—	—	—
<b>3.</b>	Review the Temporary Change Tracking Log for discrepancies.	Identifies that the VP Ductwork W/O 1253372-29 is MR90 and therefore needs an Expiration Date	—	—	—
<b>*4.</b>	Review the Temporary Changes via Procedures Only (P-MOD Log)	Reviews the P-Mod Log and Identifies that LOS-NB-R2 must be restored prior to startup (Change to Mode 2)	—	—	—
<b>5.</b>	Reports findings to Shift Manager.	Findings reported to Shift Manager	—	—	—
<b>Terminating Cue</b>					
<b>As the Shift Manager, acknowledge the report.</b> <b>Inform the student that this JPM is complete. Enter the JPM Stop Time in the blank below.</b>					

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

.....

### JPM SUMMARY

**Operator's Name:** \_\_\_\_\_

**Job Title:**  EO  RO  SRO  FS  STA/IA  SRO Cert

**JPM Title:** Review Temporary Change Tracking Logs and Report Findings to Shift Manager

**JPM Number:** A-SRO-36 **Revision Number:** 01

**Task Number and Title:** 605.020

Apply the administrative requirements of Temporary Modifications

**K/A Number and Importance:** 2.2.11 SRO 3.3

Knowledge of the process for controlling temporary design changes.

**Suggested Testing Environment:** Simulator or Classroom

**Alternate Path:**  Yes  No **SRO Only:**  Yes  No **Time Critical:**  Yes  No

**Reference(s):**

CC-MW-112-1001, Temporary Configuration Change, Rev. 11

CC-AA-112, Temporary Configuration Changes, Rev. 18

**Actual Testing Environment:**  Simulator  Control Room  In-Plant  Other

**Testing Method:**  Simulate  Perform

**Estimated Time to Complete:** 25 minutes

**Actual Time Used:** \_\_\_\_\_ minutes

#### EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily?  Yes  No

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

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

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







### **INITIAL CONDITIONS**

You are an extra licensed SRO.

The Master Startup Checklist is being performed for Unit 2.

Mode change to Mode 2 is scheduled for next shift.

### **INITIATING CUE**

The Shift Manager has requested that you review the Temporary Change Tracking Logs and look for discrepancies.

Report your findings to the Shift Manager.

Note: For privacy reasons, the initials of personnel are purposely used instead of their full names for this JPM.

# Exelon Nuclear

## Job Performance Measure

### **Authorize an Emergency Dose for a Life-Saving Operation**

JPM Number: A-SRO-37

Revision Number: 00

Date: 08/31/2012

Developed By: \_\_\_\_\_  
Instructor Date

Validated By: \_\_\_\_\_  
SME or Instructor Date

Reviewed By: \_\_\_\_\_  
Operations Representative Date

Approved By: \_\_\_\_\_  
Training Department Date

## JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

**NOTE:** All steps of this checklist should be performed upon initial validation.  
Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

- \_\_\_\_\_ 1. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 2. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 3. Performance location specified. (in-plant, control room, simulator, or other)
- \_\_\_\_\_ 4. Initial setup conditions are identified.
- \_\_\_\_\_ 5. Initiating cue (and terminating cue if required) are properly identified.
- \_\_\_\_\_ 6. Task standards identified and verified by SME review.
- \_\_\_\_\_ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_
- \_\_\_\_\_ 9. Verify cues both verbal and visual are free of conflict.
- \_\_\_\_\_ 10. Verify performance time is accurate
- \_\_\_\_\_ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

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

## **Revision Record (Summary)**

**Revision 00,** This JPM is based on “JPM Admin d.” from the NRC Exam for ILT Class 05-1. It was updated to current procedures and template for ILT 11-1 NRC Exam and provided a JPM number consistent with the current JPM bank.

## **SIMULATOR SETUP INSTRUCTIONS**

1. No SIM setup required.

2. Materials:

- The following material is required to be provided to Candidate:
  - Three (3) EP-AA-113-F-02 “Authorization for Emergency Exposure” forms, one for each volunteer. (Attached to this JPM)
    - Check 25 Rem TEDE on Each form.
  
- The following materials are required to be available to Candidate:
  - EP-AA-113, Personnel Protective Actions
  - RP-AA-203, Exposure Control and Authorization
  - EP-AA-112-100-F-01, Shift Emergency Director Checklist

### INITIAL CONDITIONS

- A General Emergency has been declared.
- Fuel failure has occurred together with a large break LOCA.
- Containment venting is in progress in order to maintain containment integrity.
- The TSC has been activated, but has not been staffed.
- The appropriate EAL has been declared.
- An emergency life saving operation must be performed.
  - The operation is estimated to take between 12 and 15 minutes
  - There is a 200 R/hr field in the area
- The operation requires two (2) people to enter the field. Three (3) people have volunteered:
  - Phred Burphle, Employee # B537347
    - Has never received an emergency exposure
  - Harvey Owanowitz, Employee # B373479
    - Has never received an emergency exposure
  - George Bush, Employee # B734722
    - Received a 27 R dose at a reactor in South Africa when he volunteered to assist in a similar life-saving operation.
    - He is familiar with the procedures for rescuing the victim.
- Per, RP-AA-203 Exposure Control and Authorization, a Rad Protection Supervisor has briefed the three volunteers and presented you with the forms to authorize the emergency exposure.

### INITIATING CUE

As the acting Station Emergency Director, perform the actions necessary to permit the life-saving operation.

.....

#### 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. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the Candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

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

The timeclock starts when the candidate acknowledges the initiating cue.

.....

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

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
<b>Note</b>	<b>The following step may be performed in any order.</b>				
<b>1.</b>	Determine emergency exposure limits in excess of 5 Rem TEDE (EPA-400 lower limits) are required for Exelon emergency workers.	Estimated dose for the life saving operation calculated to be in excess of 25 Rem (12 to 15 minutes in a 200 Rem/Hr field is 40 to 50 Rem)	—	—	—
<b>2.</b> EP-AA-113 Step 4.3.2.1	For exposures at or above 5 Rem TEDE, complete an Authorization for Emergency Exposure form EP-AA-113-F-02.	Applicable EP-AA-113-F-02 forms verified to have the REQUESTING AUTHORIZATION TO EXCEED box checked for 25 Rem TEDE			
<b>3.</b> EP-AA-113 Step 4.3.2.2	Verify that emergency workers have been briefed on the possible health effects of the anticipated exposure.	Form EP-AA-113-F-02 for Phred and Harvey checked for Rad Protection Management signature	—	—	—
<b>4.</b> EP-AA-113 Step 4.3.2.3	Verify that emergency workers have volunteered.	Form EP-AA-113-F-02 for Phred and Harvey checked for volunteer's signature	—	—	—
<b>*5.</b> RP-AA-203 Step 4.5.1 And EP-AA-113 Step 4.3.3	Emergency exposure in excess of 25 Rem TEDE is to be limited to once in a lifetime.	George Bush is eliminated as a potential rescuer and the candidate DOES NOT sign this volunteer's form EP-AA-113-F-02	—	—	—
<b>*6.</b> EP-AA-113 Step 4.3.3.1	Complete an Authorization for Emergency Exposure for Phred and Harvey.	EP-AA-113-F-02 for Phred and Harvey signed as Station Emergency Director	—	—	—
<b>TERMINATING CUE:</b> This completes this JPM.					

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

**JPM SUMMARY**

**Operator's Name:** \_\_\_\_\_

**Job Title:**  EO  RO  SRO  FS  STA/IA  SRO Cert

JPM Title: Authorize an Emergency Dose for a Life Saving Operation

JPM Number: A-SRO-37 Revision Number: 01

Task Number and Title: 701.001

Perform actions required as the acting Station Director

K/A Number and Importance: 2.3.4 SRO 3.7

Knowledge of radiation exposure limits under normal or emergency conditions.

Suggested Testing Environment: Simulator or Classroom

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

Reference(s):

EP-AA-113, Personnel Protective Actions, Rev. 11

EP-AA-113-F02, Authorization for Emergency Exposure, Rev. B

EP-AA-112-100-F-01, Shift Emergency Director Checklist, Rev. O

RP-AA-203, Exposure Control and Authorization, Rev. 3

**Actual Testing Environment:**  Simulator  Control Room  In-Plant  Other

**Testing Method:**  Simulate  Perform

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

**EVALUATION SUMMARY:**

Were all the Critical Elements performed satisfactorily?  Yes  No

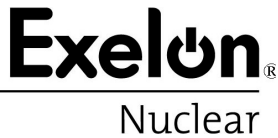
The operator's performance was evaluated against standards contained within this JPM and has been determined to be:  Satisfactory  Unsatisfactory

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

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





### Authorization for Emergency exposure

Name: Phred Burphle Date / Time: Today / Current

Employee ID Number: B537347 Current Annual Exposure: 152 mRem

Reason For Request:

Life saving operation

REQUESTING AUTHORIZATION TO EXCEED:

- 5 Rem TEDE (Authorized to receive greater than 5 Rem TEDE but less than 10 Rem TEDE)
- 10 Rem TEDE (Authorized to receive greater than 10 Rem TEDE but less than 25 Rem TEDE)
- 25 Rem TEDE (Authorized to receive greater than 25 Rem TEDE)

*Phred Burphle*

Today / 5 minutes ago

\* Emergency Worker Signature

Date / Time

\* Emergency Worker Exposure Limits and Associated Risks (EP-AA-113 Attachment 1) have been reviewed and the potential health affects are understood.

*R.P. Manager*

Today / 5 minutes ago

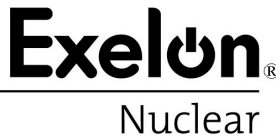
Rad. Protection Management (Review)

Date / Time

# Station Emergency Director (Authorization)

Date / Time

# The Shift Manager (Shift Emergency Director) may approve prior to transferring Command and Control to the Station Emergency Director.



### Authorization for Emergency exposure

Name: Harvey Owanowitz

Date / Time: Today / Current

Employee ID Number: B537347

Current Annual Exposure: 57 mRem

Reason For Request:

Life saving operation

REQUESTING AUTHORIZATION TO EXCEED:

- 5 Rem TEDE (Authorized to receive greater than 5 Rem TEDE but less than 10 Rem TEDE)
- 10 Rem TEDE (Authorized to receive greater than 10 Rem TEDE but less than 25 Rem TEDE)
- 25 Rem TEDE (Authorized to receive greater than 25 Rem TEDE)

Harvey Owanowitz

Today / 5 Minutes ago

\* Emergency Worker Signature

Date / Time

\* Emergency Worker Exposure Limits and Associated Risks (EP-AA-113 Attachment 1) have been reviewed and the potential health affects are understood.

R.P. Manager

Today / 5 Minutes ago

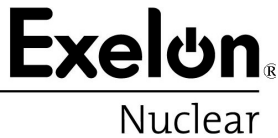
Rad. Protection Management (Review)

Date / Time

# Station Emergency Director (Authorization)

Date / Time

# The Shift Manager (Shift Emergency Director) may approve prior to transferring Command and Control to the Station Emergency Director.



### Authorization for Emergency exposure

Name: George Bush

Date / Time: Today / Current

Employee ID Number: B734722

Current Annual Exposure: 98 mRem

Reason For Request:

Life saving operation

REQUESTING AUTHORIZATION TO EXCEED:

- 5 Rem TEDE (Authorized to receive greater than 5 Rem TEDE but less than 10 Rem TEDE)
- 10 Rem TEDE (Authorized to receive greater than 10 Rem TEDE but less than 25 Rem TEDE)
- 25 Rem TEDE (Authorized to receive greater than 25 Rem TEDE)

*George Bush*

Today / 5 Minutes ago

\* Emergency Worker Signature

Date / Time

\* Emergency Worker Exposure Limits and Associated Risks (EP-AA-113 Attachment 1) have been reviewed and the potential health affects are understood.

*R.P. Manager*

Today / 5 Minutes ago

Rad. Protection Management (Review)

Date / Time

# Station Emergency Director (Authorization)

Date / Time

# The Shift Manager (Shift Emergency Director) may approve prior to transferring Command and Control to the Station Emergency Director.

### INITIAL CONDITIONS

- A General Emergency has been declared.
- Fuel failure has occurred together with a large break LOCA.
- Containment venting is in progress in order to maintain containment integrity.
- The TSC has been activated, but has not been staffed.
- The appropriate EAL has been declared.
- An emergency life saving operation must be performed.
  - The operation is estimated to take between 12 and 15 minutes
  - There is a 200 R/hr field in the area
- The operation requires two (2) people to enter the field. Three (3) people have volunteered:
  - Phred Burphle, Employee # B537347
    - Has never received an emergency exposure
  - Harvey Owanowitz, Employee # B373479
    - Has never received an emergency exposure
  - George Bush, Employee # B734722
    - Received a 27 R dose at a reactor in South Africa when he volunteered to assist in a similar life-saving operation.
    - He is familiar with the procedures for rescuing the victim.
- Per, RP-AA-203 Exposure Control and Authorization, a Rad Protection Supervisor has briefed the three volunteers and presented you with the forms to authorize the emergency exposure.

### INITIATING CUE

As the acting Station Emergency Director, perform the actions necessary to permit the life-saving operation.

# Exelon Nuclear

## Job Performance Measure

### **Determine PARS And Fill Out a NARS Form for Transmittal**

JPM Number: A-SRO-38

Revision Number: 00

Date: 08/31/2012

Developed By: \_\_\_\_\_  
Instructor Date

Validated By: \_\_\_\_\_  
SME or Instructor Date

Reviewed By: \_\_\_\_\_  
Operations Representative Date

Approved By: \_\_\_\_\_  
Training Department Date

## JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

**NOTE:** All steps of this checklist should be performed upon initial validation.  
Prior to JPM usage, revalidate JPM using steps 8 and 12 below.

- \_\_\_\_\_ 1. Task description and number, JPM description and number are identified.
- \_\_\_\_\_ 2. Knowledge and Abilities (K/A) references are included.
- \_\_\_\_\_ 3. Performance location specified. (in-plant, control room, simulator, or other)
- \_\_\_\_\_ 4. Initial setup conditions are identified.
- \_\_\_\_\_ 5. Initiating cue (and terminating cue if required) are properly identified.
- \_\_\_\_\_ 6. Task standards identified and verified by SME review.
- \_\_\_\_\_ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- \_\_\_\_\_ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_  
Procedure \_\_\_\_\_ Rev: \_\_\_\_\_
- \_\_\_\_\_ 9. Verify cues both verbal and visual are free of conflict.
- \_\_\_\_\_ 10. Verify performance time is accurate
- \_\_\_\_\_ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- \_\_\_\_\_ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

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

## **Revision Record (Summary)**

**Revision 00,** This JPM was modified for the ILT 11-1 NRC Exam. It is based on bank JPM A-SO-14, Rev. 2. It was revised to upgrade the EAL classification to a General Emergency. The wind direction was also revised, which changes the downwind protected zones.





## INITIAL CONDITIONS

You are the Shift Emergency Director.

Unit 1 experienced a LOCA in the B RR loop.

- The Rx scrambled and all rods are full in.
- RPV water level was below top of active fuel but is now being maintained between -30 and +50 inches.
- Drywell radiation levels have exceeded 100 R/Hr and are rising due to suspected fuel damage.
- Drywell pressure response was NOT as expected.
  - Drywell pressure peaked at 20 psig and then rapidly lowered.
  - Drywell pressure is at 2 psig and slowly lowering without Drywell Sprays.
- All required PCIS isolations are complete.
- General area radiation levels are elevated but there are no LGA-002 entry conditions.
- U-1 SBGT is running maintaining reactor building  $\Delta P$  at -0.3 inch H<sub>2</sub>O.
- Stack WRGM reading is 7.8 E3  $\mu\text{Ci}/\text{sec}$ . and rising slowly.
- SBGT WRGM reading is 6.5 E3  $\mu\text{Ci}/\text{sec}$ . and rising slowly.
- The wind direction is from 110 degrees and the indicated speed is 20 mph.

The Emergency Plan was activated and a Site Area Emergency (FS1) was classified 30 minutes ago due to loss of 2 fission barriers.

20 minutes ago Transmission of NARS (Utility Message #1) was completed (see attached)

All plant personnel have been notified of the classification level and the reason for the classification.

Another SRO has performed Emergency Response Organization (ERO), Emergency Notification System (ENS), and Emergency Response Data System (ERDS) activations and the (NARS) notification.

The TSC and OSC are being activated.

Drywell radiation levels now exceeded 190 R/Hr.

## INITIATING CUE

Re-evaluate plant conditions and perform the applicable Emergency Director Checklist as necessary.

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.  
.....

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

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

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
<b>CUE</b>	Provide the Candidate with (Colored/Exam) copies of: <ul style="list-style-type: none"> <li>• Utility Message NO. 1 (Completed NARS Form)</li> <li>• A (blank) Shift Emergency Director Checklist, Section 1.4</li> </ul> Note the time:_____ (15 minutes are allowed to make this declaration)				
<b>Note</b>	<b>Drywell pressure rise due to RCS leakage is a loss of RCS.</b> <b>Rapid unexplained drop in Drywell Pressure is a loss of the Primary Containment barrier.</b> <b>Drywell radiation level above 190 R/Hr is a loss of the Fuel Clad Barrier. Loss of 3 barriers is a FG1.</b>				
<b>*1.</b> EP-AA-1005	Upgrades EAL Classification to a General Emergency, FG1	FG1 declared within 15 minutes.			
<b>2.</b> EP-AA-112-100-F-01 Step 1.4.A	Announce the event classification and declaration time to the Control Room staff.	Control Room staff informed of the event classification and declaration time			
<b>3.</b> EP-AA-112-100-F-01 Step 1.4.B	Record the EAL, threshold(s) (as applicable) and declaration time.	EAL and Declaration Time recorded			
<b>CUE</b>	<b>Note the Declaration Time:_____</b> <b>(15 minutes are allowed to complete State/Local notifications)</b>				
<b>Note</b>	<b>Step 14.C is for Security events and is not applicable to this exercise.</b>				
<b>4.</b> EP-AA-112-100-F-01 Step 1.4.D	Select the Emergency Public Address Announcements from the form and direct performance of the public address announcement within 15 minutes of the event classification	(From Tab 1 of the Shift Emergency director Checklist Book)  General Emergency Announcement (Step 5.) selected			
<b>CUE</b>	<b>Role Play as a Unit Supervisor and offer to make the selected announcement.</b>				
<b>Note</b>	<b>Step 14.E is not applicable because the ERO has been activated.</b>				

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
5. EP-AA-112-100-F-01 Step 1.4.F	Determine the correct plant-based PAR per the Emergency Classification and Protective Action Recommendations procedure and the appropriate site-specific PAR Flowchart	(From Tab 7 of the Shift Emergency director Checklist Book)  LaSalle Plant Based PAR Flowchart obtained			
<b>CUE</b>	<b>When the candidate has demonstrated the ability to obtain a LaSalle Plant Based PAR Flowchart, provide the Candidate with (Colored/Exam) copy.</b>				
*6. EP-AA-112-100-F-01 Step 1.4.F	Determine the correct plant-based PAR: Evacuate 5 Mile Radius & 10 Miles Downwind Advise remainder of EPZ to monitor local radio stations. Wind Direction 110° = Subareas 1, 2, 3, 7, & 8	Correct PARS identified. Evacuate 5 Mile Radius & 10 Miles Downwind Advise remainder of EPZ to monitor local radio stations. Wind Direction 110° = Subareas 1, 2, 3, 7, & 8			
7. EP-AA-112-100-F-01 Step 1.4.G	Direct performance of State/Local notifications within 15 minutes of the event classification	Initiates preparations for State/Local notifications			
<b>CUE</b>	<b>Inform the Candidate that, at this time, there are no other SROs are available to perform State/Local notifications.</b>				
8. EP-AA-112-100-F-01 Step 1.4.G	Prepares NARS Form	(From Tab 4 of the Shift Emergency Director Checklist Book)  NARS Form obtained			
<b>CUE</b>	<b>When the candidate has demonstrated the ability to obtain a NARS Form, provide the Candidate with (Colored/Exam) copy.</b>				
<b>NOTE</b>	<b>For the next step, the candidate may also use Utility Message 1 NARS Form to establish that a release is in progress</b>				
9. EP-AA-112-100-F-01 Step 1.4.G	Determine that a release is in progress	(From Tab 21 of the Shift Emergency Director Checklist Book)  BWR Release in Progress Determination Guidance Form obtained			
<b>CUE</b>	<b>When the candidate has demonstrated the ability to obtain a BWR Release in Progress Determination Guidance Form, provide the Candidate with (Colored/Exam) copy.</b>				

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
<b>Note</b>	<b>Items 10 through 21 may be performed in any order. The critical portion of the item, if applicable, is that the form is filled out properly, not the order in which the form is filled out.</b>				
<b>10.</b>	In Utility Message block write 2.	Examinee writes the number 2 in Utility Message block	___	___	___
<b>11.</b>	In Item 1, circle B (Drill/Exercise)	Item 1 B circled	___	___	___
<b>12.</b>	In Item 2, circle E (Lasalle)	Item 2 E circled	___	___	___
<b>13.</b>	In Item 3, circle D (General Emergency)	Item 3 D circled	___	___	___
<b>*14.</b>	In Item 4, write (time & date) and EAL FG1	Actual time & Date and FG1 entered in Item 4	___	___	___
<b>15.</b>	In ACCIDENT TERMINATED section write N/A in each blank	N/A entered in each blank of ACCIDENT TERMINATED section	___	___	___
<b>*16.</b>	In Item 5, circle B (Occurring)	Item 5 B circled	___	___	___
<b>17.</b>	In Item 6, circle B (Gaseous)	Item 6 B circled	___	___	___
<b>18.</b>	In Item 7, write 110°.	For Item 7, 110 (degrees) entered	___	___	___
<b>19.</b>	In Item 8 A, write N/A In Item 8 B, write 20.0	For Item 8, N/A entered for A and 20.0 entered for B	___	___	___
<b>*20.</b>	In Item 9, circle D and writes 1,2, 3, 7, and 8 in the blank	For Item 9, D circled and subareas 1, 2, 3, 7, and 8 entered	___	___	___
<b>21.</b>	In Item 10, write None	None entered in Item 10	___	___	___
<b>*22.</b>	In Item 10, submit NARS Form for verification	NARS Form submitted for verification within 15 minutes	___	___	___
<b>Cue</b>	<b>When the Candidate submits the NARS Form for verification, inform the candidate that the JPM is complete. Record this submittal time: _____ and verify that the time since EAL Declaration in JPM Step 3 is less than 15 minutes.</b>				

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

### JPM SUMMARY

**Operator's Name:** \_\_\_\_\_

**Job Title:**  EO  RO  SRO  FS  STA/IA  SRO Cert

JPM Title: Determine PARS And Fill Out a NARS Form for Transmittal

JPM Number: A-SRO-38

Revision Number: 00

Task Number and Title: 711.001

Recommend Offsite Protective actions

K/A Number and Importance: 2.4.44, 4.4

Knowledge of emergency plan protective action recommendations

Suggested Testing Environment: Simulator or Classroom

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

Reference(s):

EP-AA-113, Personnel Protective Actions, Rev. 11

EP-AA-112-100-F-01, Shift Emergency Director Checklist, Rev. O

EP-AA-111-F-05, LaSalle Plant Based PAR Flowchart, Rev. D

EP-MW-114-100-F-01 Nuclear Accident Reporting System (NARS) Form, Rev. F

EP-AA-1005, Radiological Emergency Plan Annex for LaSalle Station, Rev.33

EP-AA-112-F-09, Emergency Public Address Announcements, Rev .C

EP-AA-114-F-02, BWR Release in Progress Determination Guidance, Rev. A

**Actual Testing Environment:**  Simulator  Control Room  In-Plant  Other

**Testing Method:**  Simulate  Perform

Estimated Time to Complete: 20 minutes

**Actual Time Used:** \_\_\_\_\_ minutes

#### EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily?  Yes  No

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

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

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

## INITIAL CONDITIONS

You are the Shift Emergency Director.

Unit 1 experienced a LOCA in the B RR loop.

- The Rx scrambled and all rods are full in.
- RPV water level was below top of active fuel but is now being maintained between -30 and +50 inches.
- Drywell radiation levels have exceeded 100 R/Hr and are rising due to suspected fuel damage.
- Drywell pressure response was NOT as expected.
  - Drywell pressure peaked at 20 psig and then rapidly lowered.
  - Drywell pressure is at 2 psig and slowly lowering without Drywell Sprays.
- All required PCIS isolations are complete.
- General area radiation levels are elevated but there are no LGA-002 entry conditions.
- U-1 SBGT is running maintaining reactor building  $\Delta P$  at -0.3 inch H<sub>2</sub>O.
- Stack WRGM reading is 7.8 E3  $\mu\text{Ci}/\text{sec}$ . and rising slowly.
- SBGT WRGM reading is 6.5 E3  $\mu\text{Ci}/\text{sec}$ . and rising slowly.
- The wind direction is from 110 degrees and the indicated speed is 20 mph.

The Emergency Plan was activated and a Site Area Emergency (FS1) was classified 30 minutes ago due to loss of 2 fission barriers.

20 minutes ago Transmission of NARS (Utility Message #1) was completed (see attached)

All plant personnel have been notified of the classification level and the reason for the classification.

Another SRO has performed Emergency Response Organization (ERO), Emergency Notification System (ENS), and Emergency Response Data System (ERDS) activations and the (NARS) notification.

The TSC and OSC are being activated.

Drywell radiation levels now exceeded 190 R/Hr.

## INITIATING CUE

Re-evaluate plant conditions and perform the applicable Emergency Director Checklist as necessary.